



AGENDA
WATAUGA CITY COUNCIL
REGULAR MEETING
MONDAY, OCTOBER 25, 2021
CITY HALL COUNCIL CHAMBER, 7105 WHITLEY ROAD
6:30 PM

This notice is posted pursuant to the Texas Open Meetings Act. Notice is hereby given that a **Regular City Council Meeting** of the City of Watauga, Texas will be held at which time the following subjects will be discussed and may be acted upon.

CALL TO ORDER (Council Members, City Staff, Members of the Public - when speaking during the meeting please speak directly into the microphones on the dais or podium)

ROLL CALL

INVOCATION

PLEDGE OF ALLEGIANCE United States and Texas Flags

ANNOUNCEMENTS

PRESENTATIONS

1. Announcement of Proclamation recognizing October 2021 as Domestic Violence Awareness Month
Arthur Miner, Mayor

PUBLIC COMMENT If speaking for an organization or group, the speaker should identify the group represented. If speaking during Public Comment (for matters not posted on that particular meeting's agenda), members of the City Council and Staff may only provide a statement of factual information in response to the inquiry or recite existing policy in response (e.g., to correct a factual misstatement made by the citizen or provide factual information requested by the citizen). Any deliberation of or decision about the subject of the inquiry shall be limited to a proposal to place the subject on the agenda for a future meeting. If necessary, the Chair will task the City Manager to respond to the citizen and report back to the City Council as soon as

practicable. Such report to the City Council shall not constitute a meeting called by the City Council nor shall it constitute deliberation or formal action. Individual citizens addressing the City Council during Public Comment shall not exceed three (3) minutes in their comments; however, the Chair may extend or reduce the speaker's allotted time in order to conduct an efficient and effective public meeting. The time allotted shall not be donated to others desiring to speak. Public Comment is not established to engage in a conversation with the Council and no formal Council action will be taken.

PUBLIC TESTIMONY FOR ACTION ITEMS Only those persons who submit a completed Request to Speak form prior to the agenda item being introduced by the Chair will be allowed to speak on agenda items set for action (this doesn't include presentations or reports). The Chair shall ask each person requesting to speak to approach the podium when called to speak. Speakers time shall generally not exceed three (3) minutes in their comments and all comments must be germane to the specific agenda item being discussed; however, the Chair may extend or reduce the speaker's allotted time. Speakers shall not be permitted to donate their time to other speakers. Members of the City Council may ask questions or discuss the item directly with the citizen during the citizen's testimony if necessary. Any discussion between a Council member and the citizen will not count toward the time limit and Council Members are encouraged not to speak until the citizen has first utilized their allocated time.

CONSENT AGENDA All of the items on the consent agenda are considered to be self-explanatory by the Council and will be enacted with one motion, one second, and one vote. There will be no separate discussion of these items.

1. Consider action to approve the Monthly Financial Report for the period ending September 30, 2021 (pre-audit).
Sandra Gibson, Director of Finance
2. Consider action to approve the Quarterly Investment Report for the period ending September 30, 2021
Sandra Gibson, Director of Finance
3. Consider action to adopt a resolution to amend the Fiscal Year 2021-22 Classification Plan for general government employees; providing for repeal; providing for severability; providing an effective date
Marcia Reyna, Human Resources and Civil Service Director
Robert Parker, Interim City Manager
4. Consider action to adopt a resolution by the City Council of the City of Watauga, Texas amending Policy 13.02, Purchasing Card Policy, of the Personnel, Administration and Financial Policies and Procedures Manual; providing for repeal; providing for severability; and providing an effective date
Sandra Gibson, Director of Finance
5. Consider action on a declaration of two (2) Ford trucks as surplus property and to authorize disposal of the surplus property

Paul Hackleman, Director of Public Works

6. Consider action to approve the purchase of four (4) Ford Trucks from Sam Pack's Ford through the BuyBoard cooperative purchasing program

Paul Hackleman, Director of Public Works

7. Consider action to approve the purchase of one Sewer Jetter Trailer from Lonestar Municipal Equipment through the BuyBoard cooperative purchasing program

Paul Hackleman, Director of Public Works

PUBLIC HEARINGS / ACTION

ACTION ITEMS

1. Presentation by SAMCO Capital Markets, the City's Financial Advisor, regarding a refunding opportunity for interest rate savings on current outstanding debt and authorizing the City's Financial Advisor, Bond Counsel and staff to proceed if certain savings targets are reached and other matters related thereto

Sandra Gibson, Director of Finance

2. Discuss and consider action on the purchase of network switch replacements through cooperative purchasing via DIR State Contract and National IPA Contract

Bradley Fraley, Chief Information Officer

3. Discuss and consider action on the purchase of network server replacements and software through cooperative purchasing via DIR State Contracts

Bradley Fraley, Chief Information Officer

4. Discuss and consider action on the purchase of an audio/visual equipment upgrade for the Council Chambers to facilitate combined live and virtual meeting participants.

Bradley Fraley, Chief Information Officer

REPORTS

ITEMS FOR FUTURE AGENDAS

EXECUTIVE SESSION The City Council will recess its open meeting and reconvene in executive session to discuss the following items pursuant to the below referenced section(s) of the Texas Government Code:

1. Pursuant to Texas Government Code Section 551.074 to deliberate the appointment or employment and compensation of a City Manager

Marcia Reyna, Human Resources and Civil Service Director

Arthur Miner, Mayor

RECONVENE The City Council will return to open session in the City Council Chamber for possible discussion and action as a result of the Executive Session.

ITEMS OF EXECUTIVE SESSION DELIBERATION

1. Consideration and possible action regarding the appointment or employment and compensation of a City Manager

Marcia Reyna, Human Resources and Civil Service Director

Arthur Miner, Mayor

ADJOURNMENT

Meeting Notices and Reservation of Rights

The City Council may retire to executive session any time between the meeting's opening and adjournment for the purpose of consultation with legal counsel pursuant to Chapter 551.071 of the Texas Government Code; discussion of personnel matters pursuant to Chapter 551.074 of the Texas Government Code if the requisite information is otherwise posted; deliberation regarding real property pursuant to Chapter 551.072 of the Texas Government Code; deliberation regarding economic development negotiations pursuant to Chapter 551.087 of the Texas Government Code; and/or deliberation regarding the deployment, or specific occasions for implementation of security personnel or devices pursuant to Chapter 551.076 of the Texas Government Code (as applicable) when determined necessary by the to address a subject matter on the agenda. Action, if any, will be taken in open session.

This agenda has been reviewed and approved by the City's legal counsel and the presence of any subject in any Executive Session portion of the agenda constitutes a written interpretation of Texas Government Code Chapter 551 by legal counsel for the governmental body and constitutes an opinion by the attorney that the items discussed therein may be legally discussed in the closed portion of the meeting considering available opinions of a court of record and opinions of the Texas Attorney General known to the attorney. This provision has been added to this agenda with the intent to meet all elements necessary to satisfy Texas Government Code Chapter 551.144(c) and the meeting is conducted by all participants in reliance on this opinion.

Attendance by Other Elected or Appointed Officials: It is anticipated that members of other governmental bodies, and/or city council, boards, commissions and/or committees may attend the meeting in numbers that may constitute a quorum of the body, board, commission and/or committee. Notice is hereby given that the meeting, to the extent required by law, is also noticed as a possible meeting of the other body, board, commission and/or committee, whose members may be in attendance, if such numbers constitute a quorum. The members of the city

council, boards, commissions and/or committees may be permitted to participate in discussions on the same items listed on the agenda, which occur at the meeting, but no action will be taken by such in attendance unless such item and action is specifically provided for on an agenda for that city council, body, board, commission or committee subject to the Texas Open Meetings Act.

NOTICE

THIS FACILITY IS WHEELCHAIR ACCESSIBLE AND ACCESSIBLE PARKING SPACES ARE AVAILABLE. REQUESTS FOR ACCOMMODATIONS OR INTERPRETIVE SERVICES MUST BE MADE 48 HOURS PRIOR TO THIS MEETING. PLEASE CONTACT THE CITY SECRETARY'S OFFICE AT (817) 514-5825, OR FAX (817) 514-3625.

I, Terri Johnson, Interim City Secretary for the City of Watauga, hereby certify that this agenda was posted on the bulletin boards at City Hall, 7105 Whitley Road, Watauga, Texas, on Friday, October 22, 2021, before 6:00 p.m., in accordance with Chapter 551 of the Texas Government Code.


Terri Johnson, Interim City Secretary





AGENDA MEMORANDUM

DATE: October 14, 2021
TO: Honorable City Council Members
FROM: Arthur Miner, Mayor
THROUGH: Keith Hartman, Interim Chief of Police
SUBJECT: Announcement of Proclamation recognizing October 2021 as Domestic Violence Awareness Month

BACKGROUND/INFORMATION:

Mayor Miner will present this proclamation on Wednesday, October 27, 2021 in the Lobby of City Hall.

FINANCIAL IMPLICATIONS:

None

RECOMMENDATION/ACTION DESIRED:

No action required as the Mayor is simply going to announce that this proclamation will be presented on October 27th.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. Domestic Violence Awareness Month 2021 Draft

REVIEWED BY:

Caroline Kelley, City Attorney

Robert Parker, Interim City Manager

Terri Johnson, Interim City Secretary

Approved as to form for inclusion on Agenda

Approved - 10/15/2021

Approved - 10/18/2021

Final Approval - 10/18/2021



Proclamation

WHEREAS, Every October, Domestic Violence Awareness Month mobilizes people around the country to join in efforts to end domestic violence in their communities; and

WHEREAS, More than 10 million women and men are physically abused by an intimate partner in the United States each year; domestic violence encompasses a pattern of behaviors used to gain or maintain power and control over a victim, and in many cases, physical violence reinforces other forms of psychological and emotional abuse such as threats, intimidation, and isolation; severe intimate partner violence can include instances of physical assault, rape, and stalking that leave victims with injuries, post-traumatic stress disorder, and other lasting impacts; and

WHEREAS, While young women are most frequently the victims of intimate partner violence, women, men, and children of every age, race, background, and circumstance can fall victim to abuse at the hands of a family member; the damage caused by domestic violence extends beyond direct victims to include children who are witnesses to violence in their own homes, and studies have shown that children exposed to family violence are at higher risk for mental health conditions like anxiety and depression, for developing substance abuse disorders and certain diseases in adulthood, and for becoming either a victim or a perpetrator of abuse themselves; and

WHEREAS, Domestic Violence Awareness Month evolved from the "Day of Unity" first observed by the National Coalition Against Domestic Violence in October, 1981; the goal of the observance was to connect advocates across the nation who were working to break the cycle of domestic violence and abuse, and it soon expanded into an entire week of activities at the local, state, and national levels; the first Domestic Violence Awareness Month took place in October 1987, the same year that the first national toll-free hotline for victims of domestic violence was established; and

WHEREAS, During Domestic Violence Awareness Month, advocates, supporters, and survivors gather to raise public awareness of domestic violence, to celebrate the progress that has been made, and to call attention to the work that must be done to protect future victims of this devastating crime.

NOW, THEREFORE, I, Arthur L. Miner, Mayor of the City of Watauga, Texas do hereby recognize the month of October 2021 as

DOMESTIC VIOLENCE AWARENESS MONTH

and encourage Watauga citizens to learn more about how they can stand up against domestic violence in our community.

Proclaimed this the 27th day of October 2021.

Arthur L. Miner, Mayor



AGENDA MEMORANDUM

DATE: October 13, 2021
TO: Honorable City Council Members
FROM: Sandra Gibson, Director of Finance
THROUGH: Robert Parker, Interim City Manager
SUBJECT: Consider action to approve the Monthly Financial Report for the period ending September 30, 2021 (pre-audit).

BACKGROUND/INFORMATION:

The Monthly Financial Report for the period of September 30, 2021 is attached for Council's review and approval. This is a pre-audit report and does not reflect all revenues and expenditures that will be recorded during the year-end closing process that is currently underway. A complete and final report will be presented to Council by the external audit firm, Weaver and Tidwell at a later date.

FINANCIAL IMPLICATIONS:

N/A

RECOMMENDATION/ACTION DESIRED:

Staff recommends that City Council review and approve the preliminary Monthly Financial Report for the period ending September 30, 2021.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. Council Report - Preliminary September 2021 to Council October 25, 2021

REVIEWED BY:

Sandra Gibson, Director of Finance
Caroline Kelley, City Attorney
Robert Parker, Interim City Manager
Terri Johnson, Interim City Secretary

Approved - 10/18/2021
Approved - 10/19/2021
Approved - 10/20/2021
Final Approval - 10/20/2021

Approved as to form for inclusion on Agenda



Monthly Financial Report Fiscal 2020-2021

For the period ending September 30, 2021

Sales Tax

The total sales tax receipts from the State Comptroller received in the month of October 2021 (reflecting August 2021 sales receipts) decreased by 8.7% from the same time last year. This decrease is net of the loss of the quarter cent dedicated street maintenance sales tax that ended December 31, 2020. The sales tax distributed to the receiving funds in comparison to prior year is listed below:

SALES TAX %		FY2020	FY2021	% CHANGE
General Fund	1.00%	\$ 245,343	\$ 262,376	6.9%
Economic Development	0.25%	\$ 61,336	\$ 65,594	6.9%
Street Maintenance*	0.00%	\$ 61,336	\$ -	-100%
Crime Control	0.5%	\$ 121,202	\$ 118,441	-2.3%
TOTAL	1.75%	\$ 489,216	\$ 446,411	-8.7%

*Street Maintenance 1/4 cent abolished December 31, 2020

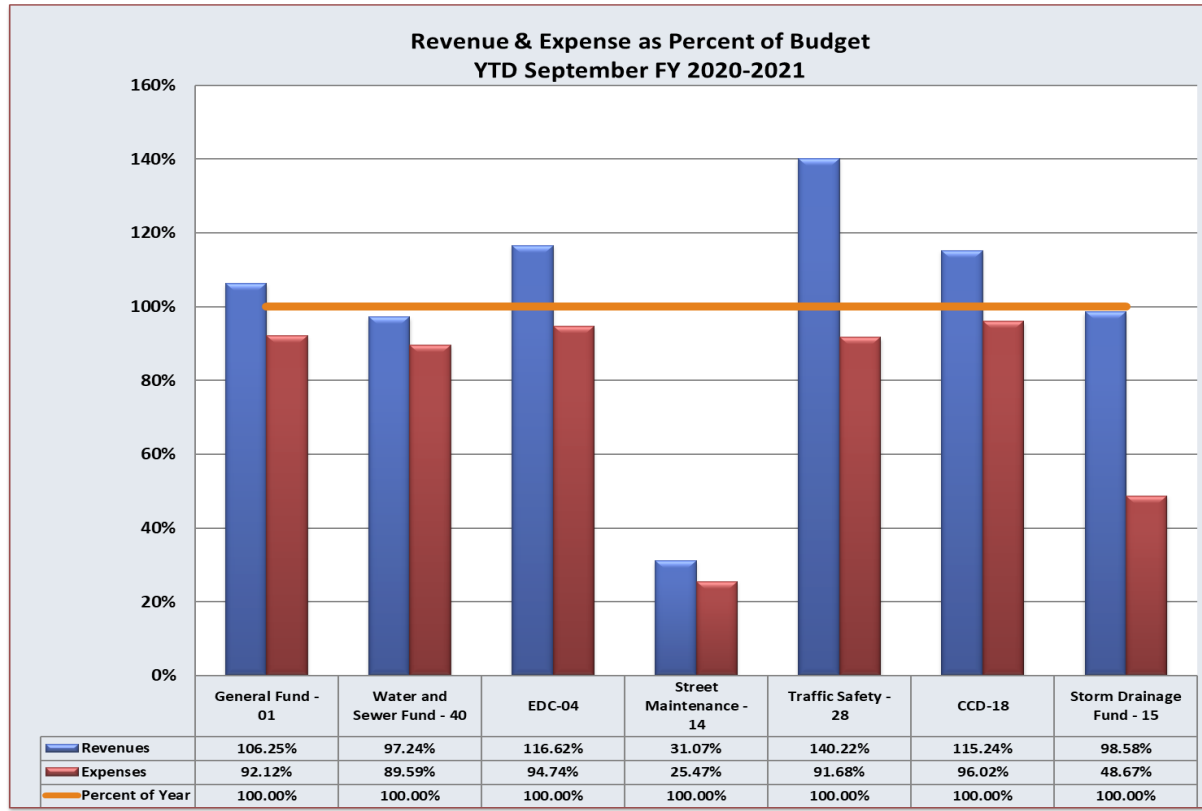
Year-to-date sales tax is trending 16.5% over prior year. The August sales tax receipts for Watauga (not including the Crime Control District) and surrounding cities are shown below:

SALES TAX RECEIPTS COMPARISONS AUGUST 2020 vs. AUGUST 2021 RECEIVED FROM COMPTROLLER - OCTOBER FISCAL YEAR 2020-2021						
Sales Tax Receipts for the Month:						
City	AUGUST 2021 Sales		AUGUST 2020 Sales		\$ Change	% Change
Grapevine	\$	3,896,161.48	\$	2,697,757.33	\$ 1,198,404.15	44.42%
Keller	\$	1,168,714.35	\$	976,954.96	\$ 191,759.39	19.63%
Saginaw	\$	564,169.40	\$	472,926.85	\$ 91,242.55	19.29%
Hurst	\$	1,370,082.57	\$	1,150,037.24	\$ 220,045.33	19.13%
Fort Worth	\$	15,521,986.63	\$	13,109,870.12	\$ 2,412,116.51	18.40%
Euless	\$	1,838,447.72	\$	1,555,585.62	\$ 282,862.10	18.18%
Southlake	\$	2,693,444.21	\$	2,327,684.99	\$ 365,759.22	15.71%
Richland Hills	\$	495,590.29	\$	429,517.46	\$ 66,072.83	15.38%
Roanoke	\$	1,637,521.60	\$	1,424,676.92	\$ 212,844.68	14.94%
Haltom City	\$	1,264,198.90	\$	1,100,885.55	\$ 163,313.35	14.83%
Bedford	\$	1,103,851.63	\$	972,536.75	\$ 131,314.88	13.50%
Colleyville	\$	541,744.01	\$	488,672.16	\$ 53,071.85	10.86%
N. Richland Hills	\$	1,408,976.78	\$	1,284,582.85	\$ 124,393.93	9.68%
Watauga	\$	327,970.21	\$	368,014.27	\$ (40,044.06)	-10.88%
Source: State Comptroller						
City Collections only - not Special Purpose Districts or Transit						

The City will receive the distribution for September 2021 sales tax receipts on November 15, 2021. Sales tax revenues have been estimated for the September reporting period.

Financial Highlights

The City is 100% through the fiscal year 2020-2021. This report is preliminary and pre-audit. It will be modified as the year-end process of recording all revenues and expenditures for the year continues. Accrual estimates have been made to reflect revenues and expenditures that are anticipated, but not yet received or invoiced. Revenue and expenses are reflected with budget amendments in the chart below and details of each fund's revenues and expenditures are attached.



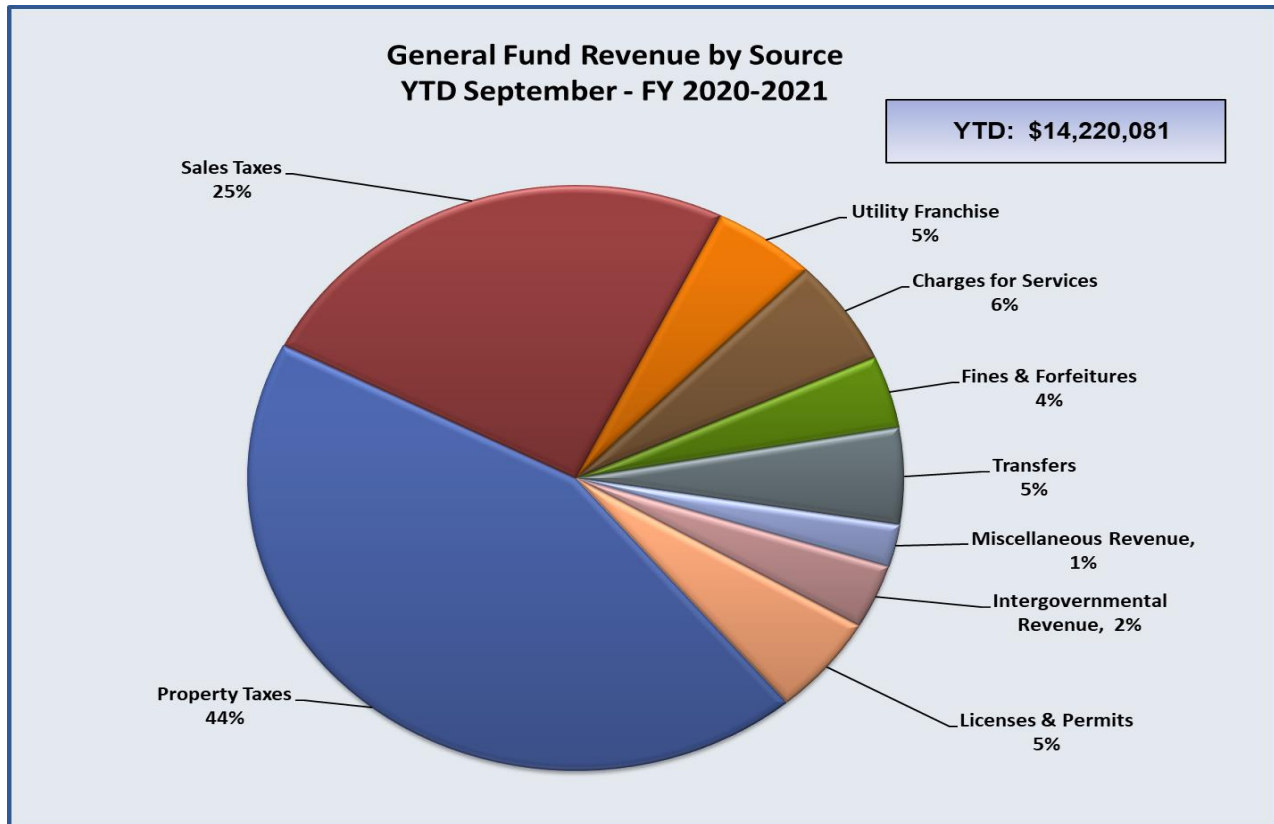
General Fund

Revenues – Annual revenues represent 106% of amended budget collected, or \$14,220,081.

Property Tax – At the end of the fiscal year, 2020-2021, the City has received 100% of budgeted property taxes and receipts are equivalent to 2020-2021 budgeted revenues. The majority of property tax revenues are received in December and January.

Utility Franchise Revenue - The majority of franchise receipts are received on a quarterly basis. The City has received \$725,337, or 84% in budgeted franchise fee revenues through September 2021. A decrease in comparison to the prior year's receipts is \$126,406 or 14.8% lower than last year with an anticipated decrease growing slightly. Fourth quarter receipts will be received in November.

Licenses and Permits - License and permit fees are at 112.5% of amended budget collected, an increase of \$276,140 over prior year.



Charges for Services - Charges for Services revenues are at 112% of amended budget collected. Charges for services include recreation fees, ambulance services, garbage collection fees and animal adoption fees. For the month of September, this revenue category is up \$23,419 or 40.6% in comparison to the period last year, although YTD comparisons remain marginally lower at 14.7% over prior year.

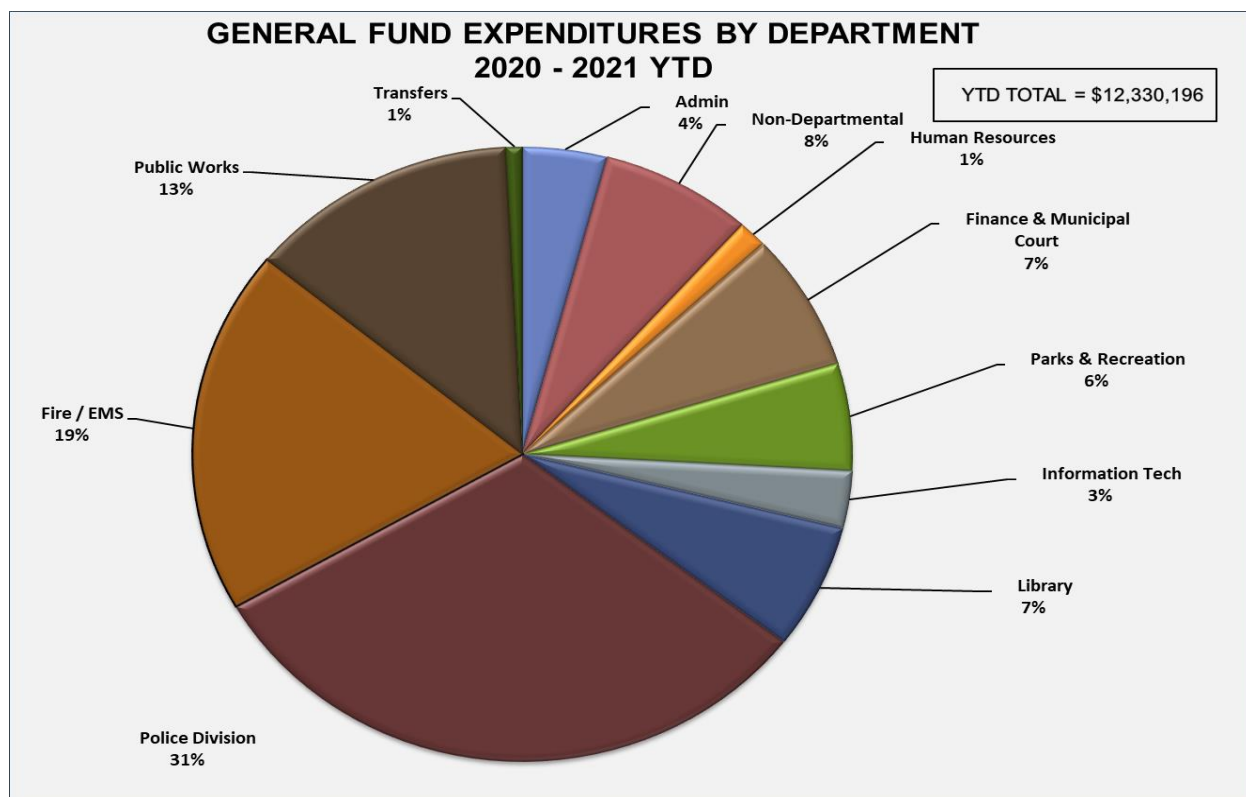
Fines and Forfeitures - Fines and Forfeitures are at 110.3% of amended budget which is \$8,990, or 1.6% higher than last year's collections.

Miscellaneous Revenue - Miscellaneous revenues include interest earnings, rental of recreational facilities, bingo, and other revenue. These receipts total \$333,118 which is 117% of amended budgeted revenues. Interest income at the end the year is lower than budget expectations due to the decline in interest yield in the City's investment and money market accounts.

Intergovernmental Revenue and Transfers - Intergovernmental Revenue include transfers from other funds for services the general fund provides and payments in lieu of taxes from the enterprise funds. Currently these revenues are on target with Intergovernmental at 100% of budget and Transfers at 98.8% of amended budget.

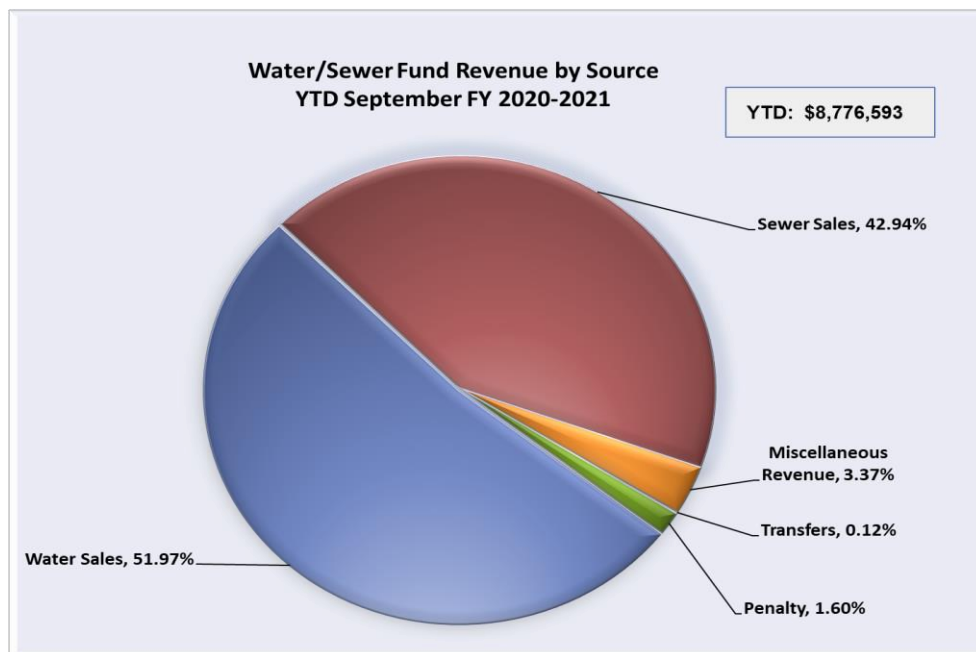
Expenses – General fund expenses are at 90.8% of amended budget expended and total \$12,330,196 for the year. Expenses are 0.5% lower than expenditures last year. This is due to the reduced budgeted expenditures in various categories for the 2020-2021 fiscal year as well as reimbursement of pandemic related expenses provided by the CARES Act grant funds. These grant expenditures are recorded in a separate fund

and have provided significant relief to the general fund this fiscal year. The CARES grant funding reimbursements were completed in December 2020.



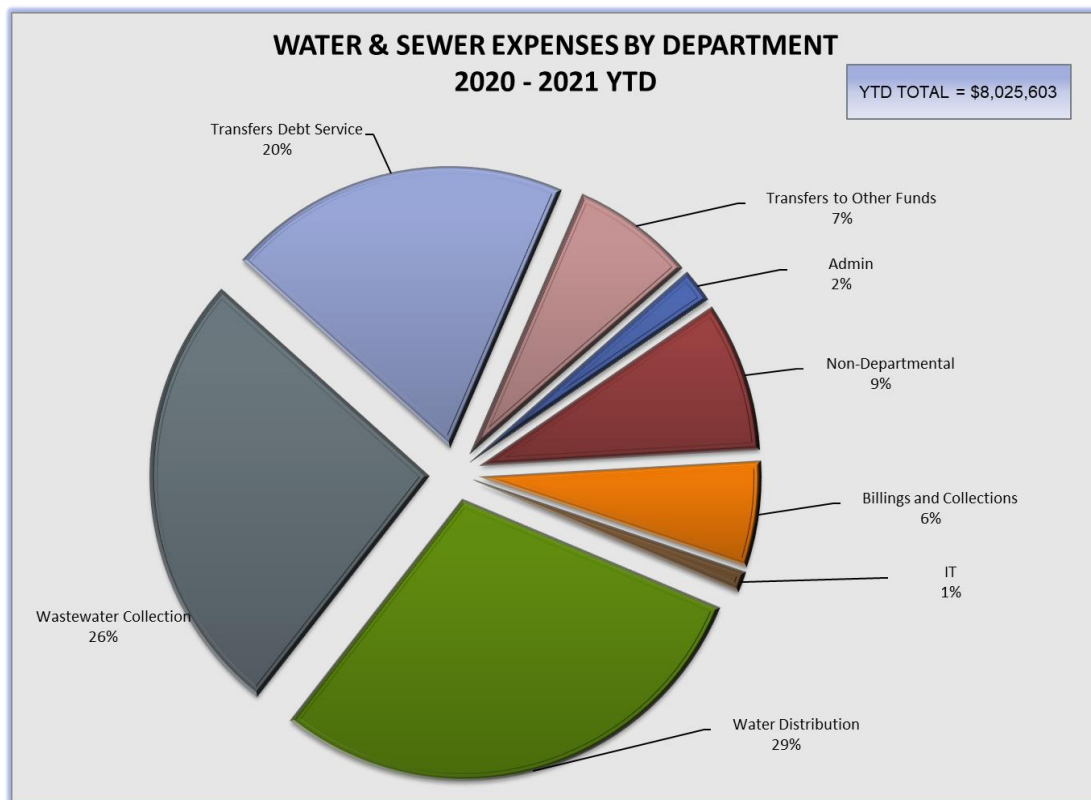
Water and Sewer Fund

The preliminary and pre-audit adjustment total water and sewer revenues are below budget and are currently at 97.2% of budgeted revenues through the end of the fiscal year. Water sales are at 96% of budgeted revenues and Sewer revenues are at 99.7% of budget. Water consumption varies due to seasonal fluctuations. Revenues are \$166,376 lower than prior year through September 2021.



Miscellaneous Sales and Penalties- Miscellaneous sales include penalty revenue, EPA revenue, service charges, returned check fees, and damaged/tampering fees. This category of revenue is at 122% of budget collected.

Expenses – Year-to-date preliminary and pre-audit expenses in the Water/Sewer fund are lower than budget expectations and are at 89.6%. Wastewater expenditures are down \$276,805, or 11.7% from last year due in part to lower wholesale wastewater costs from the City of Ft. Worth and less rainfall that contributes to inflow and infiltration expenses. The breakdown of expenses by department is shown below:



Storm Drain Fund – Revenues represent 98.6% of budget collected. Expenses are at 48.7% of budget in this fund through September 2021. Capital projects budgeted in FY2020-2021 include Whitley Road and other storm drain improvements, of which preliminary expenditures total \$891,501 through September 2021.

Special Revenue Funds - In the **Street Maintenance Fund**, sales tax revenues are 100% of amended budget collected and expenses are at 25.5% of budget. A budget adjustment was approved by Council in July to reflect the reduction of the ¼ cent sales tax for this fund effective January 1, 2021. Projects will still be funded using the fund balance reserves. The **Crime Control and Prevention District** has collected 115.2% of total revenues and is at 96% of budget expended. The **Economic Development Corporation Fund** has collected 116.6% of sales tax revenues and is at 94.7% of budget expended through September 2021. The **Traffic Safety Fund** will not collect any revenues due to the photographic enforcement program discontinuation by HB1631. This fiscal year the remaining fund balance is expected to be expended and traffic personnel will need to be budgeted in the general fund in future years. Through September, expenditures are \$320,738 or 91.7% of budget.

Fund Detail Report

CITY OF WATAUGA
BUDGET TO ACTUAL COMPARISON
FISCAL YEAR 2021
For the period ending: September 30, 2021 (4th FY Qtr.)
*** Preliminary & Pre-Audit ***

GENERAL FUND - 01

	ORIGINAL BUDGET	AMENDED BUDGET	9/30/2021 YTD ACTUAL	% USED	% AMD USED	% REMAINING	% AMD REMAINING	9/30/2020 YTD ACTUAL	\$ CHG 21 vs 20	% CHG 21 vs 20
REVENUE:										
TAXES										
AD VALOREM	6,108,000	6,108,000	6,132,972	100.41%	100.41%	-0.41%	-0.41%	6,003,697	129,275	2.15%
Delinquent	26,000	26,000	36,136	138.99%	138.99%	-38.99%	-38.99%	35,612	525	1.47%
Penalty & Interest	27,500	27,500	32,736	119.04%	119.04%	-19.04%	-19.04%	34,531	(1,795)	-5.20%
SALES TAX	2,920,000	3,225,000	3,523,137	120.66%	109.24%	-20.66%	-9.24%	3,024,650	498,486	16.48%
UTILITY FRANCHISE	862,000	862,000	725,337	84.15%	84.15%	15.85%	15.85%	851,797	(126,460)	-14.85%
LICENSES & PERMITS	531,000	691,000	777,164	146.36%	112.47%	-46.36%	-12.47%	501,024	276,140	55.12%
INTERGOVERNMENTAL REVENUE	502,600	502,600	503,500	100.18%	100.18%	-0.18%	-0.18%	503,500	0	0.00%
CHARGES FOR SERVICES	740,500	740,500	831,207	112.25%	112.25%	-12.25%	-12.25%	724,789	106,418	14.68%
FINES & FORFEITURES	515,900	515,900	568,994	110.29%	110.29%	-10.29%	-10.29%	560,003	8,990	1.61%
MISCELLANEOUS INCOME	384,900	284,900	333,118	86.55%	116.92%	13.45%	-16.92%	326,302	6,815	2.09%
OPERATING TRANSFERS IN	765,281	765,281	755,781	98.76%	98.76%	1.24%	1.24%	827,792	(72,011)	-8.70%
TOTAL REVENUE	\$13,383,681	\$13,748,681	\$14,220,081	106.25%	103.43%	-6.25%	-3.43%	\$13,393,697	\$826,383	6.17%
ADMINISTRATION	492,977	560,977	510,728	103.60%	91.04%	-3.60%	8.96%	420,137	90,591	21.56%
HUMAN RESOURCES	182,169	182,169	174,167	95.61%	95.61%	4.39%	4.39%	140,457	33,709	24.00%
BUILDINGS - PW	834,740	877,740	796,256	95.39%	90.72%	4.61%	9.28%	745,456	50,801	6.81%
FINANCE	500,247	500,247	481,321	96.22%	96.22%	3.78%	3.78%	410,799	70,522	17.17%
MUNICIPAL COURT - FIN	401,730	401,730	407,753	101.50%	101.50%	-1.50%	-1.50%	436,485	(28,732)	-6.58%
DEVELOPMENTAL SERVICES - PW	237,745	322,745	295,754	124.40%	91.64%	-24.40%	8.36%	221,591	74,163	33.47%
LIBRARY	882,480	882,480	810,127	91.80%	91.80%	8.20%	8.20%	762,199	47,927	6.29%
PARKS AND RECREATION	882,505	882,505	694,343	78.68%	78.68%	21.32%	21.32%	1,123,085	(428,742)	-38.18%
POLICE	4,054,124	4,054,124	3,858,859	95.18%	95.18%	4.82%	4.82%	3,851,242	7,617	0.20%
FIRE/EMS	2,644,602	2,644,602	2,364,245	89.40%	89.40%	10.60%	10.60%	2,172,467	191,778	8.83%
PUBLIC WORKS - STREETS	434,632	434,632	341,054	78.47%	78.47%	21.53%	21.53%	444,047	(102,994)	-23.19%
FLEET MANAGEMENT - PW	204,900	204,900	203,353	99.24%	99.24%	0.76%	0.76%	179,181	24,171	13.49%
NON-DEPARTMENTAL	1,129,810	1,129,810	921,555	81.57%	81.57%	18.43%	18.43%	1,143,479	(221,924)	-19.41%
INFORMATION TECHNOLOGY	402,909	402,909	370,683	92.00%	92.00%	8.00%	8.00%	326,736	43,947	13.45%
ECONOMIC DEVELOPMENT	-	-	-	0.00%	0.00%	0.00%	0.00%	-	0	0.00%
TRANSFERS TO OTHER FUNDS	100,000	100,000	100,000	100.00%	100.00%	0.00%	0.00%	12,500	87,500	700.00%
TOTAL EXPENDITURES	13,385,570	13,581,570	12,330,196	92.12%	90.79%	7.88%	9.21%	12,389,862	(\$59,666)	-0.48%
EXCESS REVENUE OVER (UNDER) EXPENDITURES	(\$1,889)	\$167,111	\$1,889,884					\$1,003,835	\$886,049	

CITY OF WATAUGA
BUDGET TO ACTUAL COMPARISON
FISCAL YEAR 2021
For the period ending: September 30, 2021 (4th FY Qtr.)
*** Preliminary & Pre-Audit ***

DEBT SERVICE FUND - 03

	CURRENT BUDGET	9/30/2021 YTD ACTUAL	% USED	% REMAINING	9/30/2020 YTD ACTUAL	\$ CHG 21 vs 20	% CHG 21 vs 20
REVENUE:							
TAXES							
AD VALOREM	2,720,000	2,750,574	101.12%	-1.12%	2,582,860	\$167,714	6.49%
Delinquent	12,000	15,546	129.55%	-29.55%	15,338	\$209	1.36%
Penalty & Interest	10,000	13,221	132.21%	-32.21%	13,720	(\$499)	-3.64%
INTEREST EARNINGS	5,000	1,262	25.23%	74.77%	11,652	(\$10,390)	-89.17%
OTHER FINANCING SOURCES	-	0	-	-	0	\$0	-
OPERATING TRANSFERS IN	157,503	157,503	100.00%	0.00%	100,178	\$57,325	57.22%
TOTAL REVENUE	\$2,904,503	\$2,938,106	101.16%	-1.16%	\$2,723,748	\$214,359	7.87%
 Contractual & Sundry	 2,957,206	 2,955,837	 99.95%	 0.05%	 2,618,283	 \$337,554	 0.00%
TOTAL EXPENDITURES	2,957,206	2,955,837	99.95%	0.05%	2,618,283	\$337,554	0.00%
 EXCESS REVENUE OVER (UNDER) EXPENDITURES	 (\$52,703)	 (\$17,730)			 \$105,465	 (\$123,195)	

CITY OF WATAUGA
BUDGET TO ACTUAL COMPARISON
FISCAL YEAR 2021
For the period ending: September 30, 2021 (4th FY Qtr.)
*** Preliminary & Pre-Audit ***

WATAUGA ECONOMIC DEVELOPMENT CORP - 04

	CURRENT BUDGET	9/30/2021 YTD ACTUAL	% USED	% REMAINING	9/30/2020 YTD ACTUAL	\$ CHG 21 vs 20	% CHG 21 vs 20
REVENUE:							
SALES TAX	705,000	868,916	123.25%	-23.25%	744,464	124,452	16.72%
INTEREST EARNINGS	5,000	845	16.89%	83.11%	5,301	(4,457)	-84.07%
INTEREST/ESCROW	-	-	-	-	-	0	-
CONTRIBUTIONS/OTHER	35,800	-	-	-	-	0	-
TOTAL REVENUE	\$745,800	\$869,761	116.62%	-16.62%	\$749,765	119,996	16.00%
PERSONNEL SERVICES	-	-	0.00%	0.00%	-	-	0.00%
NON-DEPARTMENTAL	-	-	0.00%	0.00%	-	-	0.00%
SUPPLIES	1,085	1,051	96.83%	3.17%	606	445	73.37%
MAINTENANCE	-	-	0.00%	0.00%	-	-	0.00%
CONTRACTUAL & SUNDRY	117,875	94,026	79.77%	20.23%	93,402	624	0.67%
TRANSFERS	379,784	379,784	100.00%	0.00%	294,470	85,314	28.97%
CAPITAL OUTLAY	2,500	-	0.00%	100.00%	-	-	0.00%
TOTAL EXPENDITURES	501,244	474,861	94.74%	5.26%	\$ 388,478	86,383	22.24%
EXCESS REVENUE OVER (UNDER) EXPENDITURES	\$244,556	\$394,900			\$361,287	\$33,613	

CITY OF WATAUGA
BUDGET TO ACTUAL COMPARISON
FISCAL YEAR 2021
For the period endi September 30, 2021 (4th FY Qtr.)
*** Preliminary & Pre-Audit ***

STREET MAINTENANCE FUND - 14

	ORIGINAL BUDGET	AMENDED BUDGET	9/30/2021 YTD ACTUAL	% USED	% AMD USED	% REMAINING	% AMD REMAINING	9/30/2020 YTD ACTUAL	\$ CHG 21 vs 20	% CHG 21 vs 20
REVENUE:										
SALES TAX	708,000	221,000	220,958	31.21%	99.98%	68.79%	0.02%	744,463	(523,505)	-70.3%
INTEREST EARNINGS	8,000	8,000	1,496	0.00%	0.00%	100.00%	100.00%	12,379	(10,882)	-87.9%
INTEREST/ESCROW	-	-	-	-	-	-	-	-	-	-
CONTRIBUTIONS/OTHER	-	-	-	-	-	-	-	-	-	-
TOTAL REVENUE	\$ 716,000	\$ 229,000	\$222,454	31.21%	99.98%	168.79%	100.02%	756,842	(\$534,388)	-70.61%
MAINTENANCE	100,000	100,000	31,261	31.26%	31.26%	68.74%	68.74%	73,211	(41,950)	0.0%
CONTRACTUAL & SUNDRY	8,000	8,000	2,665	33.31%	33.31%	66.69%	66.69%	1,395	1,270	0.0%
CAPITAL OUTLAY	800,000	800,000	197,371	24.67%	24.67%	75.33%	75.33%	344,866	-	0.0%
TOTAL EXPENDITURES	908,000	908,000	231,297	25.47%	25.47%	74.53%	74.53%	419,472	(\$188,175)	-44.9%
EXCESS REVENUE OVER (UNDER) EXPENDITURES	(\$192,000)	(\$679,000)	-\$8,843					\$337,370	(\$346,213)	

CITY OF WATAUGA
BUDGET TO ACTUAL COMPARISON
FISCAL YEAR 2021
For the period ending: September 30, 2021 (4th FY Qtr.)
*** Preliminary & Pre-Audit ***

STORM DRAIN FUND - 15

	CURRENT BUDGET	9/30/2021 YTD ACTUAL	% USED	% REMAINING	9/30/2020 YTD ACTUAL	\$ CHG 21 vs 20	% CHG 21 vs 20
REVENUE:							
USERS FEE	1,470,000	1,475,731	100.39%	-0.39%	1,475,089	641	0.04%
OTHER REVENUE	-	3,755	-	-	-	3,755	-
INTEREST INCOME	35,000	4,128	11.79%	88.21%	69,058	(64,930)	-94.02%
			-	-		-	-
TOTAL REVENUE	\$1,505,000	\$1,483,614	98.58%	1.42%	\$1,544,147	(\$60,533)	-3.92%
PERSONNEL	465,400	402,474	86.48%	13.52%	\$449,834	(47,360)	-10.53%
SUPPLIES	32,150	18,138	56.42%	43.58%	\$15,524	2,614	16.84%
MAINTENANCE	54,500	8,379	15.38%	84.62%	\$16,396	(8,016)	0.00%
CONTRACTUAL & SUNDRY	184,445	133,460	72.36%	27.64%	\$135,769	(2,310)	-1.70%
CAPITAL	2,328,697	891,501	38.28%	61.72%	\$382,179	509,322	0.00%
TRANSFERS TO OTHER FUNDS	73,500	73,500	100.00%	0.00%	\$73,500	-	0.00%
TOTAL EXPENDITURES	3,138,692	1,527,452	48.67%	51.33%	\$1,073,203	\$454,249	42.33%
EXCESS REVENUE OVER (UNDER) EXPENDITURES	(\$1,633,692)	(\$43,838)			\$470,944	(\$514,782)	

CITY OF WATAUGA
BUDGET TO ACTUAL COMPARISON
FISCAL YEAR 2021
For the period ending: September 30, 2021 (4th FY Qtr.)
*** Preliminary & Pre-Audit ***

CRIME CONTROL DISTRICT - 18

	ORIGINAL BUDGET	AMENDED BUDGET	9/30/2021 YTD ACTUAL	% USED	% AMD USED	% REMAINING	% AMD REMAINING	9/30/2020 YTD ACTUAL	\$ CHG 21 vs 20	% CHG 21 vs 20
REVENUE:										
SALES TAX	1,347,000	1,347,000	1,679,886	124.71%	124.71%	-24.71%	-24.71%	1,468,760	211,127	14.37%
INTEREST EARNING/OTHER	54,000	54,000	49,865	92.34%	92.34%	7.66%	7.66%	43,256	6,608	15.28%
TRANSFERS	100,000	100,000								
				-	-	-	-		-	-
TOTAL REVENUE	\$1,501,000	\$1,501,000	\$1,729,751	115.24%	115.24%	-15.24%	-15.24%	\$1,512,016	\$217,735	14.40%
PERSONNEL SERVICES	991,000	991,000	989,205	99.82%	99.82%	0.18%	0.18%	\$1,029,370	(40,165)	-3.90%
SUPPLIES	122,500	125,500	109,710	89.56%	87.42%	10.44%	12.58%	\$105,801	3,909	3.69%
MAINTENANCE	223,000	223,000	225,612	101.17%	101.17%	-1.17%	-1.17%	\$222,048	3,564	1.61%
CONTRACTUAL & SUNDRY	174,150	171,150	129,242	74.21%	75.51%	25.79%	24.49%	\$135,149	(5,907)	-4.37%
TRANSFERS	30,000	30,000	30,000	100.00%	100.00%	0.00%	0.00%	\$30,000	-	0.00%
CAPITAL OUTLAY	13,000	13,000	8,026	61.73%	61.73%	38.27%	38.27%	\$5,760	2,266	0.00%
TOTAL EXPENDITURES	1,553,650	1,553,650	1,491,795	96.02%	96.02%	3.98%	3.98%	\$1,528,128	(\$36,333)	-2.38%
EXCESS REVENUE OVER (UNDER) EXPENDITURES	(\$52,650)	(\$52,650)	\$237,956					\$ (16,112)	\$254,068	

CITY OF WATAUGA
BUDGET TO ACTUAL COMPARISON
FISCAL YEAR 2021
For the period ending: September 30, 2021 (4th FY Qtr.)
*** Preliminary & Pre-Audit ***

Traffic Safety - 28

	CURRENT BUDGET	9/30/2021 YTD ACTUAL	% USED	% REMAINING	9/30/2020 YTD ACTUAL	\$ CHG 21 vs 20	% CHG 21 vs 20
REVENUE:							
FINES & FORFEITURES	-	-	-	0.00%	-	-	0.00%
INTEREST	500	701	140.22%	-40.22%	2,626	(1,925)	-73.30%
		-	-	-			-
TOTAL REVENUE	500	701	140.22%	-40.22%	2,626	(1,925)	-73.30%
PERSONNEL SERVICES	341,650	316,737	92.71%	7.29%	288,715	28,022	9.71%
SUPPLIES	7,100	3,776	53.18%	46.82%	2,268	1,508	66.49%
CONTRACTUAL & SUNDRY	1,100	225	20.45%	79.55%	705	(480)	0.00%
CAPITAL OUTLAY	-	-	-	0.00%	-	-	0.00%
TOTAL EXPENDITURES	349,850	320,738	91.68%	8.32%	291,688	29,050	9.96%
EXCESS REVENUE OVER (UNDER) EXPENDITURES	(\$349,350)	(\$320,037)			(\$289,062)	(\$30,974)	

CITY OF WATAUGA
BUDGET TO ACTUAL COMPARISON
FISCAL YEAR 2021
For the period ending: September 30, 2021 (4th FY Qtr.)
*** Preliminary & Pre-Audit ***

WATER & SEWER - 40

	CURRENT BUDGET	9/30/2021 YTD ACTUAL	% USED	% REMAINING	9/30/2020 YTD ACTUAL	\$ CHG 21 vs 20	% CHG 21 vs 20
REVENUE:							
WATER SALES	4,745,000	4,561,309	96.13%	3.87%	4,779,606	(218,297)	-4.57%
SEWER SALES	3,780,000	3,768,250	99.69%	0.31%	3,749,323	18,927	0.50%
MISCELLANEOUS	236,000	288,049	122.05%	-22.05%	246,469	41,581	16.87%
PENALTY	205,000	140,849	68.71%	31.29%	128,484	12,365	9.62%
INTEREST	30,000	3,834	12.78%	87.22%	9,145	(5,311)	-58.07%
TRANSFERS	30,000	10,701	35.67%	64.33%	26,677	(15,976)	0.00%
TAP FEES	-	3,600	-	-	3,266	334	0.00%
SALE OF ASSETS	-	-	-	-	-	-	-
TOTAL REVENUE	\$9,026,000	\$8,776,593	97.24%	2.76%	\$8,942,969	(\$166,376)	-1.86%
ADMINISTRATIVE	153,750	153,087	99.57%	0.43%	154,327	(1,240)	-0.80%
NON-DEPARTMENTAL	706,830	688,741	97.44%	2.56%	704,865	(16,125)	-2.29%
BILLING & COLLECTIONS	524,860	486,066	92.61%	7.39%	517,607	(31,541)	-6.09%
MGT. INFO SYSTEMS	95,080	92,131	96.90%	3.10%	79,734	12,397	15.55%
WATER DISTRIBUTION	2,860,390	2,349,219	82.13%	17.87%	2,721,419	(372,200)	-13.68%
WASTEWATER COLLECTION	2,439,017	2,091,016	85.73%	14.27%	2,367,821	(276,805)	-11.69%
TRANSFERS	2,178,000	2,165,343	99.42%	0.58%	2,085,814	79,530	3.81%
TOTAL EXPENDITURES	8,957,927	8,025,603	89.59%	10.41%	8,631,586	(\$605,984)	-7.02%
EXCESS REVENUE OVER (UNDER) EXPENDITURES	\$68,073	\$750,990			\$311,383	\$439,607	

Quarterly Reports

Certificates of Obligation Expenditures Report

(4th Quarter)

Attached is an expenditure and project listing of 2016, 2017, 2018 and 2019 and 2020 and 2021 Certificates of Obligation proceeds through 9/30/2021.

- ❖ The **2016** Certificates of Obligation proceeds were received in September, 2016 in the amount of \$6.0 million. Expenditures to date include the engineering design and construction expenditures for Bursey Road, Phase II, the Whitley Road Phase One - Three engineering and construction, the community center parking lot and the Pavestone Wall Repair at Capp Smith Park. Multi-year projects that are continuing this year include Whitley Road Phase Three and Phase Four and the Splashpad drainage project (partial funding in 2016).
- ❖ The \$7.5 million **2017** Certificates of Obligation proceeds were received in June, 2017. These proceeds are used to fund water and wastewater infrastructure improvements as identified in the 5-year Capital Improvement Plan. These include Whitley Road Phase One - Three and Whitley Road Phase Four water and sewer projects, Starnes Road Water Main, and Meadowlark East and the Sanitary Sewer Evaluation.
- ❖ The \$7.0 million **2018** Certificates of Obligation proceeds were received in September, 2018. Various vehicles and equipment were funded by the proceeds that are completed or in progress (see attached listing for details). Projects include partial funding for the Splashpad Project (EDC funded), the Whites Branch Creek Trail, Branding Signs (EDC funded), Whitley Road Four, and various parks projects such as the lighting replacement at Capp Smith.
- ❖ The \$8.850 million **2019** Certificates of Obligation proceeds were received in September, 2019. These funds are reserved for water and wastewater projects, parks projects, and capital outlay to include vehicles and equipment for various departments. A listing of funded items is attached that included completed and in progress projects and equipment.
- ❖ The \$450,000 **2020** Tax Notes proceeds were received in February, 2020 for the purchase of an ambulance and the design costs of the Fire Station Restroom renovation project. The design work for the fire station has been completed and any remaining funds are allocated to the construction phase of this project.
- ❖ The \$3.0 million **2020** Certificates of Obligation proceeds were received in September, 2020 and placed in the construction Money Market account. These funds are reserved for the Whitley Road 4 street project, the food business site (funded by the Watauga Economic Development Corporation), the Fire Station renovation project, library roof project and parks building improvements, and various city vehicles and equipment.
- ❖ The \$4.7 million **2021** Certificates of Obligation proceeds were received in September, 2021 and placed in the construction Money Market account. These funds are reserved for street projects and equipment replacement needs as outlined in the 2022-2026 Capital Improvement Project and Capital Outlay Plan.

CERTIFICATES OF OBLIGATION FUNDS 2016
\$6,000,000 PROCEEDS
As of September 2021

07-562-86120

PROJECT	FINAL COST OR ESTIMATE	EXPENDED	REMAINING
COMPLETED:			
<i>Bursey Road Two (Willis Lane - Rufe Snow)</i>	<i>\$2,117,400.00</i>	<i>\$2,117,400.00</i>	
<i>Community Center Parking Lot Expansion</i>	<i>\$105,984.00</i>	<i>\$105,984.00</i>	
<i>Whitley Road One (Starnes - Oakhill)</i>	<i>\$707,658.03</i>	<i>\$707,658.03</i>	
<i>Pavestone Wall - Capp Smith Park</i>	<i>\$121,822.01</i>	<i>\$121,822.01</i>	
IN PROGRESS:			
Whitley Road Three (Chapman - Hightower)	\$1,992,290.00	\$1,587,956.32	\$404,333.68
Splashpad	\$311,000.00	\$302,260.54	\$8,739.46
Whitley Road Four (Hightower - Oakhill) - construction	\$643,500.00	\$0.00	\$643,500.00
PROJECTS TOTAL	\$5,999,654.04	\$4,943,080.90	\$1,056,573.14
TOTAL FUNDS REMAINING	\$345.96		

CERTIFICATES OF OBLIGATION FUNDS 2017
\$7,500,000 PROCEEDS
As of September 2021

45-020-86122

PROJECT	FINAL COST OR ESTIMATE	EXPENDED	REMAINING
COMPLETED:			
Whitley Road One (Starnes - Oakhill)	\$101,954.21	\$101,954.21	
Whitley Road Two (Watauga Rd - Chapman)	\$2,450,478.50	\$2,450,478.50	
Sanitary Sewer Evaluation 2019	\$224,687.80	\$224,687.80	
Starnes Rd Water Main (Indian Springs - Rufe Snow)	\$971,309.98	\$971,309.98	
IN PROGRESS:			
Whitley Road Three (Chapman - Hightower)	\$452,297.00	\$383,678.89	\$68,618.11
Whitley Road Four - Water Portion (Hightower to Oakhill)	\$1,533,000.00	\$139,239.22	\$1,393,760.78
Meadowlark Lane East (Water/Sewer)	\$1,706,387.00	\$1,512,141.25	\$194,245.75
PROJECTS TOTAL	\$7,440,114.49	\$5,783,489.85	\$1,656,624.64
TOTAL FUNDS REMAINING	\$59,885.51		

CERTIFICATES OF OBLIGATION FUNDS 2018
\$7,000,000 PROCEEDS
As of September 2021

VARIOUS

PROJECT	FINAL COST OR ESTIMATE	EXPENDED	REMAINING
COMPLETED			
Patrol Vehicles (5 units) & K-9 Vehicle	\$319,108.43	\$319,108.43	
Fire Marshal Vehicle	\$55,128.90	\$55,128.90	
Dedicated COVID Response Vehicle	\$10,948.58	\$10,948.58	
Public Works Fleet Shop Bay Doors	\$32,250.00	\$32,250.00	
Water Tower Fire Alarm Replacement	\$34,850.00	\$34,850.00	
Fire Engine	\$589,000.00	\$589,000.00	
Community Center Sign	\$80,812.30	\$80,812.30	
Public Works - Streets Division Ford F150 Truck	\$30,454.90	\$30,454.90	
Public Works - Building Maintenance Ford F150 Truck	\$31,841.00	\$31,841.00	
Foster Village Bridge & Sidewalk Improvements	\$48,042.00	\$48,042.00	
Needs Assessments - Library and Police	\$103,738.30	\$103,738.30	
Capp Smith Weir	\$27,150.00	\$27,150.00	\$0.00
Sidewalks	\$100,000.00	\$100,000.00	\$0.00
Splashpad	\$987,970.78	\$987,970.78	
Capp Smith Park Amenities	\$49,477.00	\$49,477.00	
IN PROGRESS:			
Lighting Replacement (Capp Smith Park)	\$700,000.00	\$513,217.63	\$186,782.37
Whites Branch Creek Trail @ Park Vista	\$283,347.00	\$33,347.00	\$250,000.00
Other Park Projects/City Wide Trail Systems/Park Vista	\$345,000.00	\$21,945.00	\$323,055.00
Branding Signs	\$250,000.00	\$139,600.29	\$110,399.71
Whitley Road Four (Hightower to Oakhill)	\$1,410,500.00	\$397,654.06	\$1,012,845.94
Bowie Street	\$419,948.00	\$369,332.75	\$50,615.25
Materials Bin - Parks Facility - (use somewhere else - splashpad seating)	\$30,000.00	\$0.00	\$30,000.00
Street Overlays/Sidewalks	\$850,000.00	\$41,716.84	\$808,283.16
Recreation Van - move forward?? \$77K last quote???	\$12,000.00	\$0.00	\$12,000.00

PROJECTS TOTAL	\$6,801,567.19	\$4,017,585.76	\$2,783,981.43
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TOTAL FUNDS REMAINING	\$198,432.81		
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CERTIFICATES OF OBLIGATION FUNDS 2019
\$8,850,000 PROCEEDS
As of September 2021

07-563-86220

45-563-86220

PROJECT	FINAL COST OR ESTIMATE	EXPENDED	REMAINING
COMPLETED			
Public Works - Manlift	\$22,111.98	\$22,111.98	
Parks Shade Structures - Hillview	\$16,577.00	\$16,577.00	
Public Works - Concrete Saw	\$30,797.50	\$30,797.50	
Information Technology - Cargo Van	\$31,475.00	\$31,475.00	
Parks Shade Structures - Virgil Anthony	\$26,977.00	\$26,977.00	
Flatbed (Dump Bed) Truck	\$44,426.74	\$44,426.74	
Police - Tahoes	\$121,989.71	\$121,989.71	
Police - ATV	\$19,932.52	\$19,932.52	
Police - ACO Unit	\$55,200.69	\$55,200.69	
Library - RFID	\$49,497.79	\$49,497.79	
Public Works Dump Truck	\$61,216.24	\$61,216.24	
2021 Silverado (replaces unit 158)	\$19,367.65	\$19,367.65	
Backhoe Loader	\$166,797.83	\$166,797.83	
IN PROGRESS:			
Recreation - Van - 12 Passenger with Chair Lift	\$33,632.35	\$0.00	\$33,632.35
Generator (Water Tower) - possible ARPA funding	\$150,000.00	\$0.00	\$150,000.00
Water / Wastewater Projects:	\$8,000,000.00	\$664,210.00	\$7,335,790.00
Group 1: Wastewater Rehabilitations (S2, S3, S4, S5, S9, S10 & MH)			
Group 2: Wastewater Rehabilitations (S6, S7 & S8)			
Group 3: Summertime Lane from Carousel Drive to Rufe Snow Drive			
Group 4: Water Rehabilitation (W1, W7, W8 & F18)			
Group 5: 2020 SSES (south of Chapman Road and east of HWY 377)			
PROJECTS TOTAL	\$8,850,000.00	\$1,330,577.65	\$7,519,422.35
TOTAL FUNDS REMAINING	\$0.00		



TAX NOTE 2020

07-085-85130

\$450,000 PROCEEDS

As of September 2021

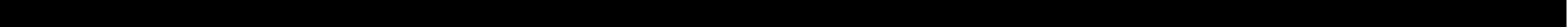
PROJECT	FINAL COST OR ESTIMATE	EXPENDED	REMAINING
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COMPLETED			
Ambulance	\$349,204.39	\$349,204.39	
Dedicated COVID Response Vehicle	\$795.61	\$795.61	

IN PROGRESS:			
Fire Station Design	\$60,000.00	\$57,000.00	\$3,000.00
Fire Station Renovation Construction	\$40,000.00	\$40,000.00	\$0.00

PROJECTS TOTAL	\$450,000.00	\$447,000.00	\$3,000.00
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TOTAL FUNDS REMAINING	\$0.00		
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CERTIFICATES OF OBLIGATION 2020

\$3,000,000 PROCEEDS

As of September 2021

PROJECT	FINAL COST OR ESTIMATE	EXPENDED	REMAINING
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COMPLETED			
Technology - Computers	\$216,000.00	\$216,000.00	
Library Roof Replacement	\$69,525.00	\$69,525.00	
PW - Streets Heavy Equipment Drum Roller	\$38,057.00	\$38,057.00	

IN PROGRESS:			
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Fire Station Renovation Construction	\$893,660.00	\$683,827.40	\$209,832.60
Whitley Road Four (Hightower to Oakhill)	\$983,000.00	\$0.00	\$983,000.00
Food Business Park - Capp Smith Park Location - need direction by WEDC	\$500,000.00	\$43,550.00	\$456,450.00
Police - ACO Truck	\$60,000.00	\$0.00	\$60,000.00
Parks - Pole Barn Equipment Storage	\$65,000.00	\$0.00	\$65,000.00
PROJECTS TOTAL	\$2,825,242.00	\$1,050,959.40	\$1,774,282.60
TOTAL FUNDS REMAINING	\$174,758.00		



QUARTERLY INVESTMENT REPORT

For the Quarter Ended

September 30, 2021

Prepared by

Valley View Consulting, L.L.C.

The investment portfolio of the City of Watauga is in compliance with the Public Funds Investment Act and the City of Watauga Investment Policy

City Manager

Director of Finance

Assistant Director of Finance

Disclaimer: These reports were compiled using information provided by the City of Watauga. No procedures were performed to test the accuracy or completeness of this information. The market values included in these reports were obtained by Valley View Consulting, L.L.C. from sources believed to be accurate and represent proprietary valuation. Due to market fluctuations these levels are not necessarily reflective of current liquidation values. Yield calculations are not determined using standard performance formulas, are not representative of total return yields and do not account for investment adviser fees.

Annual Comparison of Portfolio Performance

FYE Results by Investment Category:

Asset Type	September 30, 2020			September 30, 2021		
	Ave. Yield	Book Value	Market Value	Ave. Yield	Book Value	Market Value
DDA/MMA/NOW	0.35%	\$ 22,832,422	\$ 22,832,422	0.18%	\$ 28,259,424	\$ 28,259,424
Pools	0.18%	4,672,443	4,672,443	0.03%	8,350,732	8,350,732
CD/Security	1.66%	10,751,428	10,751,428	1.13%	2,541,210	2,541,210
Totals		\$ 38,256,293	\$ 38,256,293		\$ 39,151,366	\$ 39,151,366
Fourth Quarter-End Yield	0.70%			0.21%		

Average Quarter-End Yields (1):

	2020 Fiscal Year	2021 Fiscal Year
Watauga	1.26%	0.26%
Rolling Three Month Treasury	0.76%	0.06%
Rolling Six Month Treasury	0.99%	0.08%
TexPool	0.75%	0.04%
Fiscal YTD Interest Earnings	\$ 528,368 (Approximate)	\$ 114,335 (Approximate)

(1) Average Quarterly Yield calculated using quarter-end report average yield and adjusted book value.

Summary

Quarter End Results by Investment Category:

<u>Asset Type</u>	<u>June 30, 2021</u>		<u>September 30, 2021</u>		
	<u>Book Value</u>	<u>Market Value</u>	<u>Book Value</u>	<u>Market Value</u>	<u>Ave. Yield</u>
DDA/MMA/NOW	\$ 25,425,944	\$ 25,425,944	\$ 28,259,424	\$ 28,259,424	0.18%
Pools	8,782,006	8,782,006	8,350,732	8,350,732	0.03%
CD/Security	4,122,124	4,122,124	2,541,210	2,541,210	1.13%
Totals	\$ 38,330,074	\$ 38,330,074	\$ 39,151,366	\$ 39,151,366	0.21%

Current Quarter Portfolio Performance (1)

Average Quarterly Yield	0.21%
Rolling Three Month Treasury	0.05%
Rolling Six Month Treasury	0.05%
TexPool	0.03%

Fiscal Year-to-Date Portfolio Performance (2)

Average Quarter End Yield	0.26%
Rolling Three Month Treasury	0.06%
Rolling Six Month Treasury	0.08%
TexPool	0.04%

Interest Earnings (Approximate)

Quarterly Interest Earnings	\$ 19,338
Fiscal YTD Interest Earnings	\$ 114,335

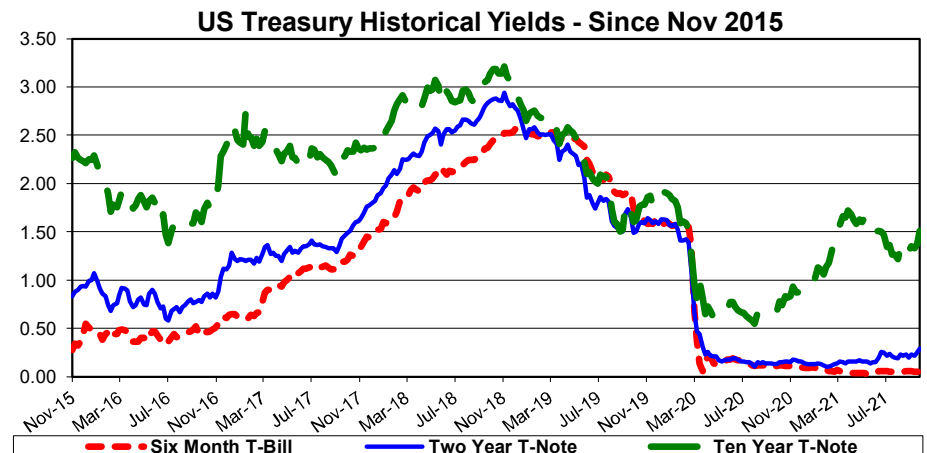
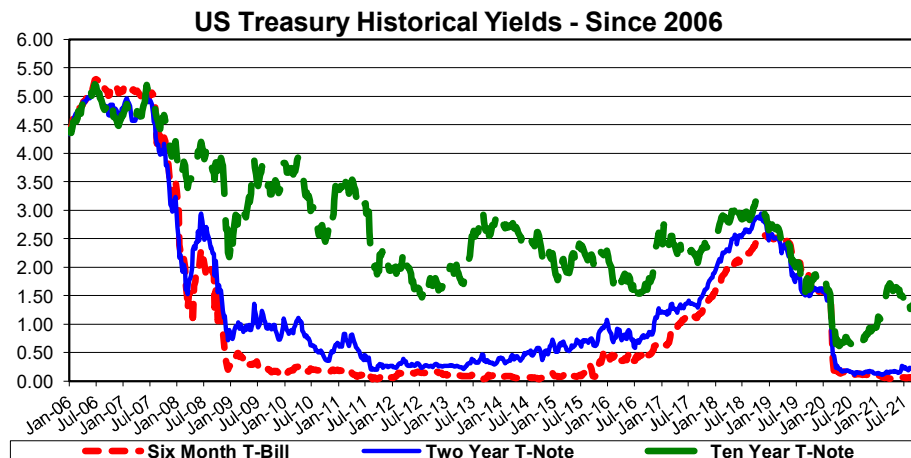
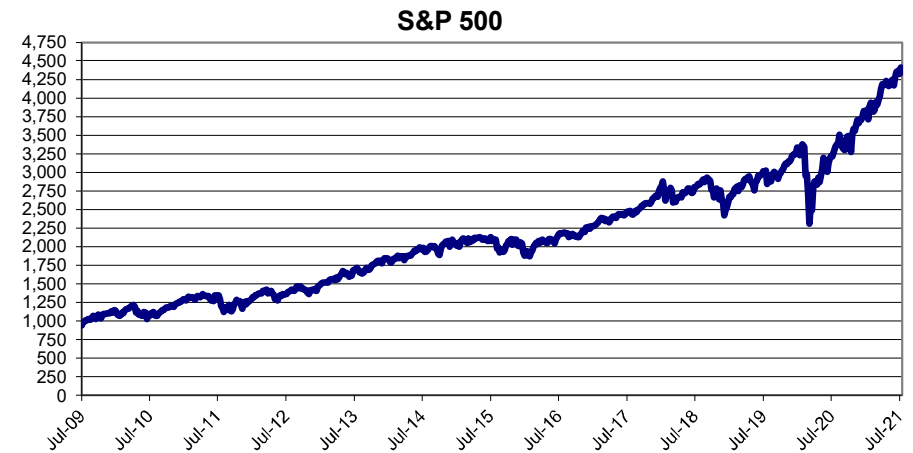
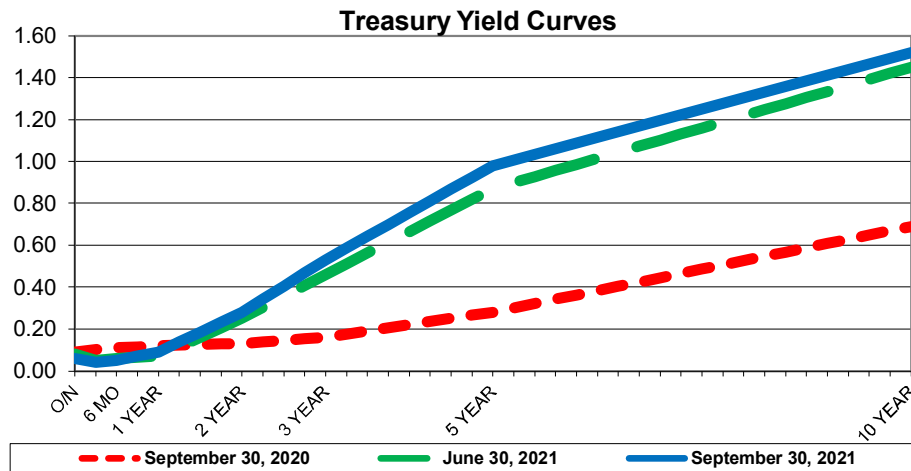
(1) **Current Quarter Average Yield** - based on adjusted book value, realized and unrealized gains/losses and investment advisory fees are not considered. The yield for the reporting month is used for bank, pool, and money market balances.

(2) **Fiscal Year-to-Date Average Yields** - calculated using quarter end report yields and adjusted book values and does not reflect a total return analysis or account for advisory fees.

Economic Overview

9/30/2021

The Federal Open Market Committee (FOMC) maintained the Fed Funds target range at 0.00% to 0.25% (Effective Fed Funds are trading <0.10%), and projects that reduced rates could remain into 2023. Monthly government security purchases may begin tapering as early as Nov 2021. Second Quarter GDP posted +6.7% (Final). Employment recovery/growth has moderated, but job openings remain high. August Non-Farm Payroll only added 194k net new jobs. Crude oil bounced up to +/- \$77 per barrel, with fuel shortages in England and other countries. The Stock Markets reached new highs, but have retrenched slightly. Housing, Industrial Production, Durable Goods, Consumer Spending, and other indicators remain positive but constrained. The Biden administration and Congress continue to negotiate infrastructure, fiscal and debt limit packages. Inflation remained over the FOMC 2+% target and may not be as temporary as initially projected. The Yield Curve rose slightly from two years to ten years.

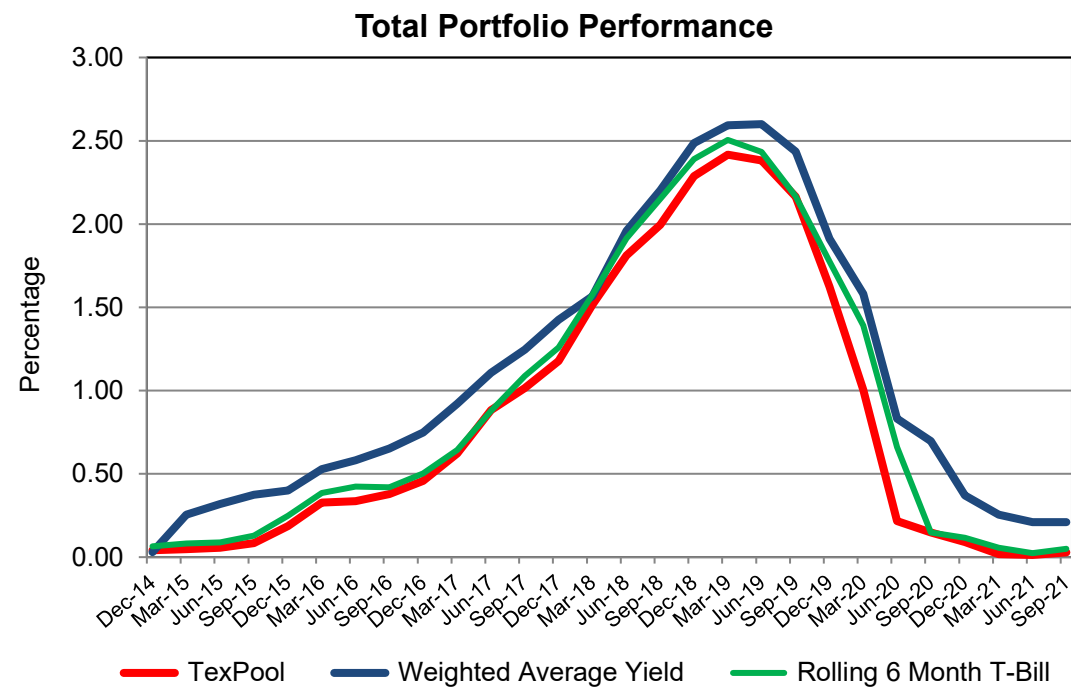
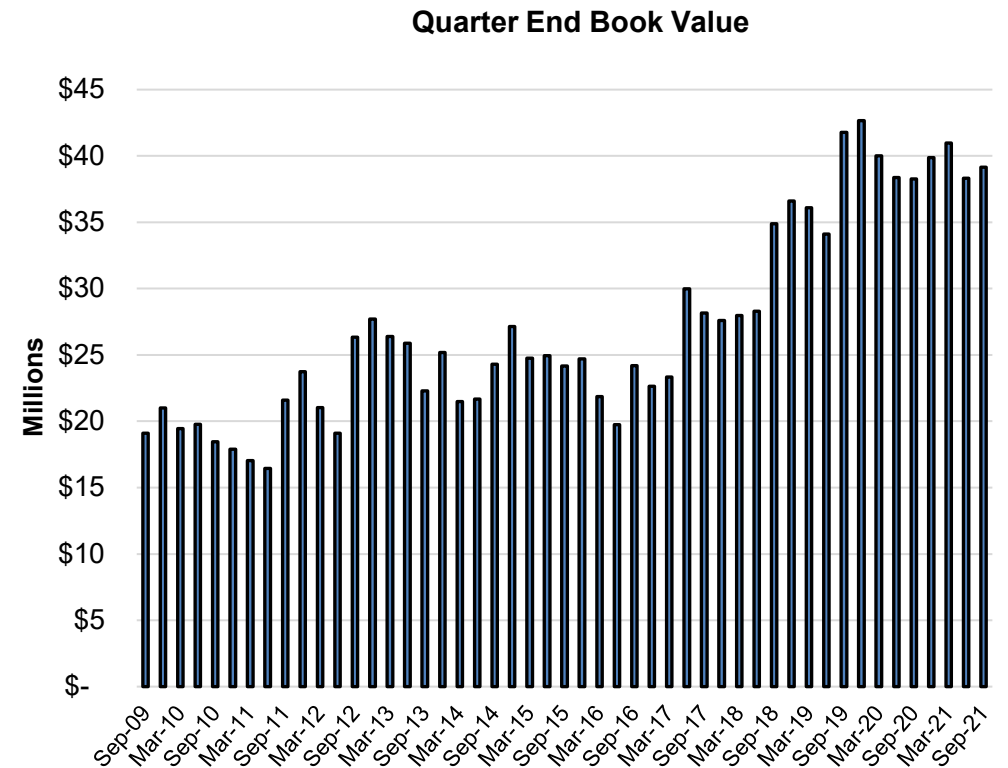
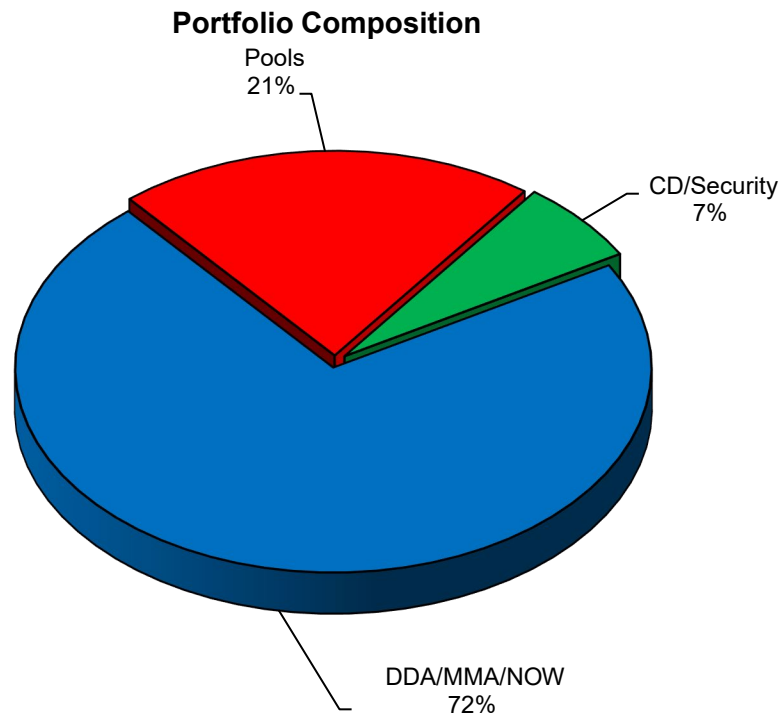


Investment Holdings
September 30, 2021

Description	Rating	Coupon/ Discount	Maturity Date	Settlement Date	Original Face\ Par Value	Book Value	Market Price	Market Value	Life (Days)	Yield
Southside Bank MMA		0.18%	10/01/21	09/30/21	\$ 28,259,424	\$ 28,259,424	1.00	\$ 28,259,424	1	0.18%
TexasDAILY	AAAm	0.02%	10/01/21	09/30/21	471,748	471,748	1.00	471,748	1	0.02%
LOGIC	AAAm	0.04%	10/01/21	09/30/21	309,113	309,113	1.00	309,113	1	0.04%
TexPool	AAAm	0.03%	10/01/21	09/30/21	6,525,426	6,525,426	1.00	6,525,426	1	0.03%
TexPool Prime	AAAm	0.06%	10/01/21	09/30/21	1,044,445	1,044,445	1.00	1,044,445	1	0.06%
BBVA CD		1.73%	10/24/21	10/24/19	1,000,000	1,030,683	100.00	1,030,683	24	1.75%
Prosperity Bank CD		0.70%	07/25/22	07/24/20	1,500,000	1,510,528	100.00	1,510,528	298	0.70%
					\$ 39,110,156	\$ 39,151,366		\$ 39,151,366	13	0.21%
									(1)	(2)

(1) **Weighted average life** - Pools, Money Market Funds, and Bank Deposits are assumed to have a one day maturity.

(2) **Weighted average yield to maturity** - The weighted average yield to maturity is based on Adjusted Book Value, adviser fees and realized and unrealized gains/losses are not considered. The pool and mutual fund yields are the average for the last month of the quarter. Bank deposit yields are estimated from the monthly allocated earnings.



Book & Market Value Comparison

Issuer/Description	Yield	Maturity Date	Book Value 06/30/21	Increases	Decreases	Book Value 09/30/21	Market Value 06/30/21	Change in Market Value	Market Value 09/30/21
Southside Bank MMA	0.18%	10/01/21	\$ 25,425,944	\$ 2,833,480	\$ —	\$ 28,259,424	\$ 25,425,944	\$ 2,833,480	\$ 28,259,424
TexasDAILY	0.02%	10/01/21	471,724	24	—	471,748	471,724	24	471,748
LOGIC	0.04%	10/01/21	309,080	33	—	309,113	309,080	33	309,113
TexPool	0.03%	10/01/21	6,956,923	—	(431,497)	6,525,426	6,956,923	(431,497)	6,525,426
TexPool Prime	0.06%	10/01/21	1,044,279	167	—	1,044,445	1,044,279	167	1,044,445
Prosperity Bank CD	0.60%	07/26/21	1,587,972	—	(1,587,972)	—	1,587,972	(1,587,972)	—
BBVA CD	1.75%	10/24/21	1,026,256	4,426	—	1,030,683	1,026,256	4,426	1,030,683
Prosperity Bank CD	0.70%	07/25/22	1,507,896	2,632	—	1,510,528	1,507,896	2,632	1,510,528
TOTAL / AVERAGE	0.21%		\$ 38,330,074	\$ 2,840,761	\$ (2,019,469)	\$ 39,151,366	\$ 38,330,074	\$ 821,292	\$ 39,151,366

**Allocation
September 30, 2021
Book & Market Value**

	Total	Consolidated Cash	Construction	Crime Control District
Southside Bank MMA	\$ 28,259,424	\$ 8,506,864	\$ 19,752,560	\$ –
TexasDAILY	471,748	471,748	–	–
LOGIC	309,113	309,113	–	–
TexPool	6,525,426	6,501,805	–	23,621
TexPool Prime	1,044,445	1,044,445	–	–
10/24/21–BBVA CD	1,030,683	–	1,030,683	–
07/25/22–Prosperity Bank CD	1,510,528	–	1,510,528	–
Totals	\$ 39,151,366	\$ 16,833,975	\$ 22,293,770	\$ 23,621

**Allocation
June 30, 2021
Book & Market Value**

	Total	Consolidated Cash	Construction	Crime Control District
Southside Bank MMA	\$ 25,425,944	\$ 8,014,221	\$ 17,411,723	\$ –
Texas Term Daily	471,724	471,724	–	–
LOGIC	309,080	309,080	–	–
TexPool	6,956,923	6,933,303	–	23,620
TexPool Prime	1,044,279	1,044,279	–	–
07/26/21–Prosperity Bank CD	1,587,972	1,587,972	–	–
10/24/21–BBVA CD	1,026,256	–	1,026,256	–
07/25/22–Prosperity Bank CD	1,507,896	–	1,507,896	–
Totals	\$ 38,330,074	\$ 18,360,579	\$ 19,945,875	\$ 23,620



AGENDA MEMORANDUM

DATE: October 13, 2021

TO: Honorable City Council Members

FROM: Sandra Gibson, Director of Finance

THROUGH: Robert Parker, Interim City Manager

SUBJECT: Consider action to approve the Quarterly Investment Report for the period ending September 30, 2021

BACKGROUND/INFORMATION:

The Quarterly Investment Report for the period ending September 30, 2021 is attached for Council review and approval.

The City is required to comply with Chapter 2256 of the Government Code, otherwise known as the Public Funds Investment Act. Provisions of that act require at a minimum quarterly reporting. The accompanying Quarterly Investment Report lists, in summary form and in detail, the investment position of the City of Watauga's investment portfolios as of September 30, 2021. The overall strategy of running the City's investment portfolios is governed by the City's Investment Policy and overseen by the City's investment committee. All investments are governed by state law and the City's Investment Policy which dictates the following investment objectives, in order of priority:

Safety of Principal
Liquidity
Return on Investments

As of September 30, 2021, the City held money market accounts and investments with a combined book value of \$39,151,366. The City fund portfolio consists of operating funds, construction funds, and debt service funds. Construction funds account for 57% of the investment portfolio and are dedicated to funding various capital improvement projects throughout the City. The City received \$4.7 million from the 2021 Certificates of Obligation proceeds in September, 2021. The City's portfolio has averaged a yield of 0.21% for the fourth quarter of Fiscal Year 2020-2021 and investment earnings for the quarter were \$19,338. The Federal Open Market Committee (FOMC) maintained the Fed Funds target range at 0.00% to 0.25% and projected that reduced rates could remain into 2023 or longer. The City Portfolio distribution is 7% in Certificates of Deposit, 72% in money market accounts, and 21% in pooled investment accounts.



AGENDA MEMORANDUM

The investment committee reviewed the Quarterly Investment Report. The Committee finds the report to be in compliance with the Public Funds Investment Act and recommends that the City Council receive and accept the report, as presented.

FINANCIAL IMPLICATIONS:

N/A

RECOMMENDATION/ACTION DESIRED:

Staff recommends approval of the Quarterly Investment Report for the period ending September 30, 2021.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. QUARTERLY REPORT FOR THE PERIOD ENDING SEPTEMBER 30, 2021

REVIEWED BY:

Sandra Gibson, Director of Finance
Caroline Kelley, City Attorney
Robert Parker, Interim City Manager
Deby Woodard, Assistant Director of Finance
Terri Johnson, Interim City Secretary
Approved as to form for inclusion on Agenda

Approved - 10/18/2021
Approved - 10/18/2021
Approved - 10/18/2021
Approved - 10/20/2021
Final Approval - 10/20/2021



QUARTERLY INVESTMENT REPORT

For the Quarter Ended

September 30, 2021

Prepared by

Valley View Consulting, L.L.C.

The investment portfolio of the City of Watauga is in compliance with the Public Funds Investment Act and the City of Watauga Investment Policy

City Manager

Sandra Gibson

Digitally signed by Sandra Gibson
DN: cn=Sandra Gibson, o=Director of Finance,
ou=Finance, email=sgibson@cowtx.org, c=US
Date: 2021.10.18 12:40:58 -0500

Director of Finance

Daby Woodard

Assistant Director of Finance

Disclaimer: These reports were compiled using information provided by the City of Watauga. No procedures were performed to test the accuracy or completeness of this information. The market values included in these reports were obtained by Valley View Consulting, L.L.C. from sources believed to be accurate and represent proprietary valuation. Due to market fluctuations these levels are not necessarily reflective of current liquidation values. Yield calculations are not determined using standard performance formulas, are not representative of total return yields and do not account for investment adviser fees.

Annual Comparison of Portfolio Performance

FYE Results by Investment Category:

	September 30, 2020			September 30, 2021		
Asset Type	Ave. Yield	Book Value	Market Value	Ave. Yield	Book Value	Market Value
DDA/MMA/NOW	0.35%	\$ 22,832,422	\$ 22,832,422	0.18%	\$ 28,259,424	\$ 28,259,424
Pools	0.18%	4,672,443	4,672,443	0.03%	8,350,732	8,350,732
CD/Security	1.66%	10,751,428	10,751,428	1.13%	2,541,210	2,541,210
Totals		\$ 38,256,293	\$ 38,256,293		\$ 39,151,366	\$ 39,151,366
Fourth Quarter-End Yield	0.70%			0.21%		

Average Quarter-End Yields (1):

	2020 Fiscal Year	2021 Fiscal Year
Watauga	1.26%	0.26%
Rolling Three Month Treasury	0.76%	0.06%
Rolling Six Month Treasury	0.99%	0.08%
TexPool	0.75%	0.04%
Fiscal YTD Interest Earnings	\$ 528,368 (Approximate)	\$ 114,335 (Approximate)

(1) Average Quarterly Yield calculated using quarter-end report average yield and adjusted book value.

Summary

Quarter End Results by Investment Category:

<u>Asset Type</u>	<u>June 30, 2021</u>		<u>September 30, 2021</u>		
	<u>Book Value</u>	<u>Market Value</u>	<u>Book Value</u>	<u>Market Value</u>	<u>Ave. Yield</u>
DDA/MMA/NOW	\$ 25,425,944	\$ 25,425,944	\$ 28,259,424	\$ 28,259,424	0.18%
Pools	8,782,006	8,782,006	8,350,732	8,350,732	0.03%
CD/Security	4,122,124	4,122,124	2,541,210	2,541,210	1.13%
Totals	\$ 38,330,074	\$ 38,330,074	\$ 39,151,366	\$ 39,151,366	0.21%

Current Quarter Portfolio Performance (1)

Average Quarterly Yield	0.21%
Rolling Three Month Treasury	0.05%
Rolling Six Month Treasury	0.05%
TexPool	0.03%

Fiscal Year-to-Date Portfolio Performance (2)

Average Quarter End Yield	0.26%
Rolling Three Month Treasury	0.06%
Rolling Six Month Treasury	0.08%
TexPool	0.04%

Interest Earnings (Approximate)

Quarterly Interest Earnings	\$ 19,338
Fiscal YTD Interest Earnings	\$ 114,335

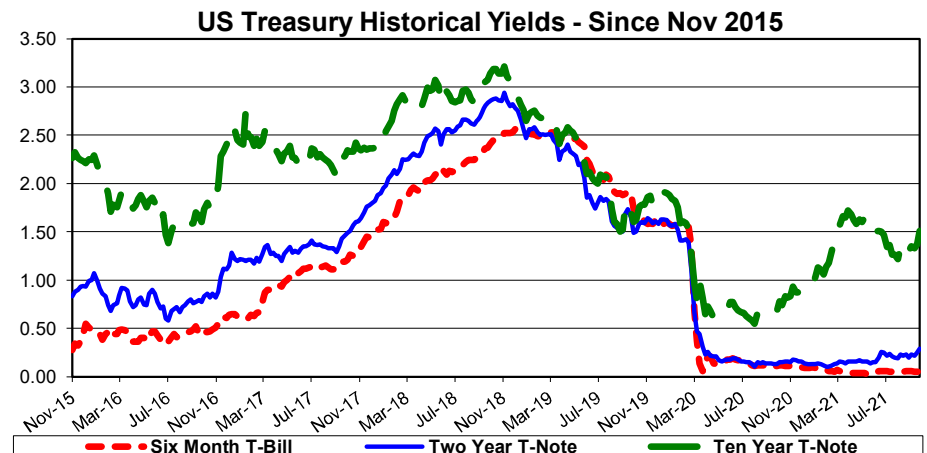
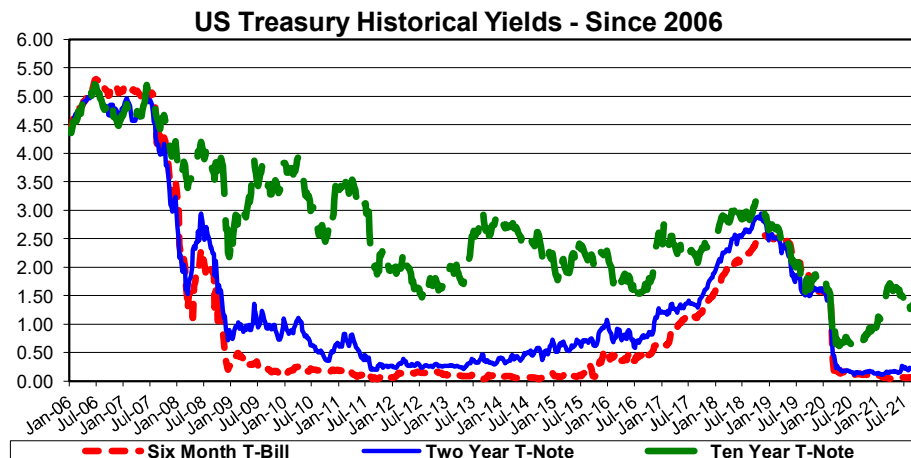
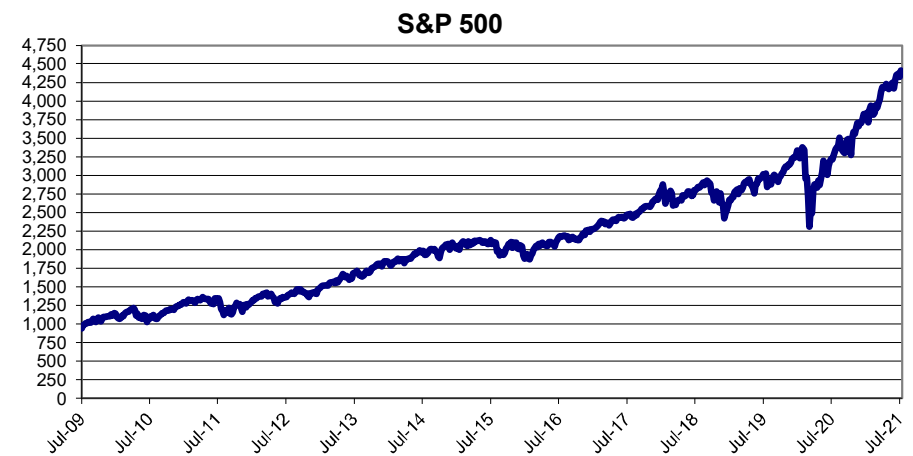
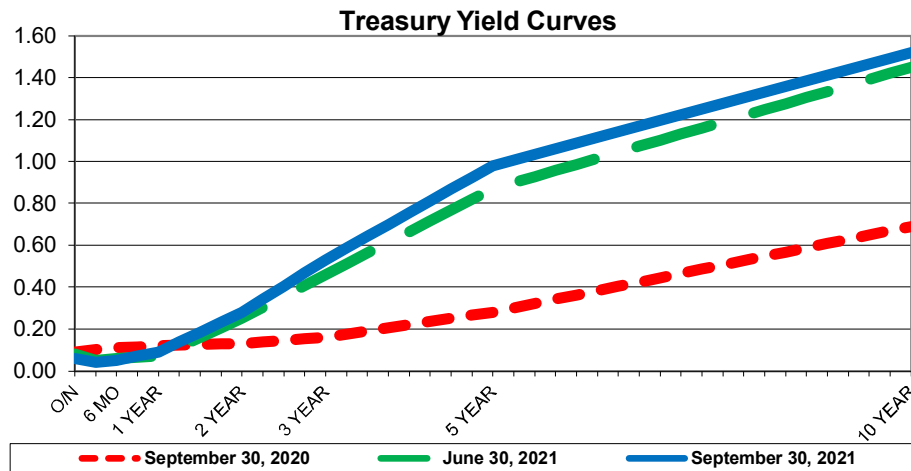
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(2) **Fiscal Year-to-Date Average Yields** - calculated using quarter end report yields and adjusted book values and does not reflect a total return analysis or account for advisory fees.

Economic Overview

9/30/2021

The Federal Open Market Committee (FOMC) maintained the Fed Funds target range at 0.00% to 0.25% (Effective Fed Funds are trading <0.10%), and projects that reduced rates could remain into 2023. Monthly government security purchases may begin tapering as early as Nov 2021. Second Quarter GDP posted +6.7% (Final). Employment recovery/growth has moderated, but job openings remain high. August Non-Farm Payroll only added 194k net new jobs. Crude oil bounced up to +/- \$77 per barrel, with fuel shortages in England and other countries. The Stock Markets reached new highs, but have retrenched slightly. Housing, Industrial Production, Durable Goods, Consumer Spending, and other indicators remain positive but constrained. The Biden administration and Congress continue to negotiate infrastructure, fiscal and debt limit packages. Inflation remained over the FOMC 2+% target and may not be as temporary as initially projected. The Yield Curve rose slightly from two years to ten years.

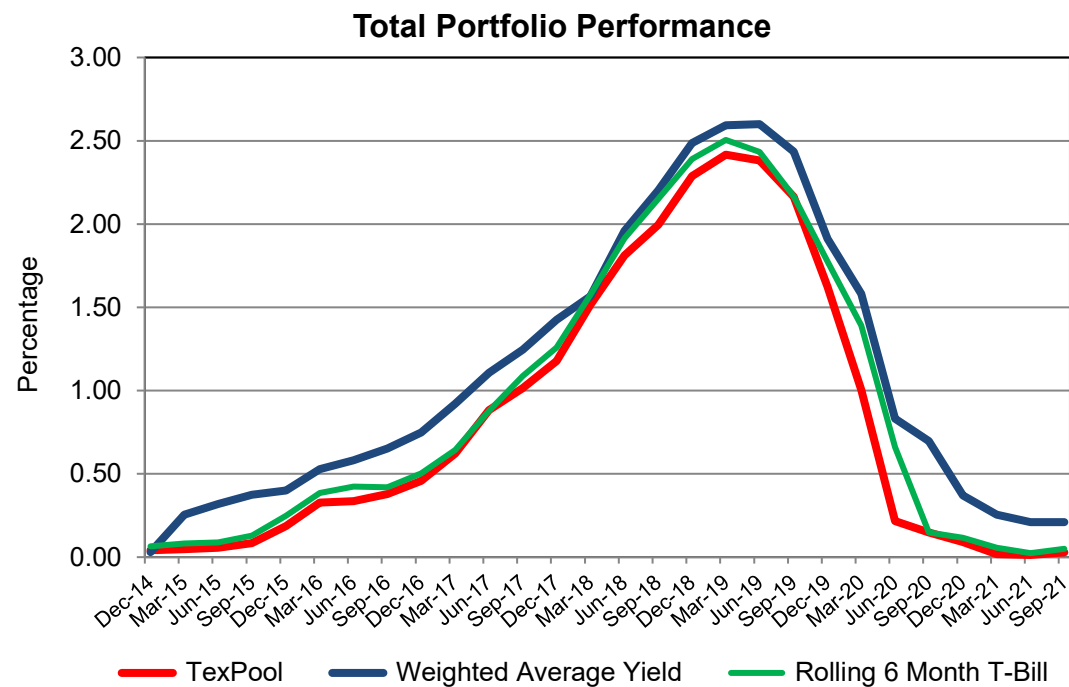
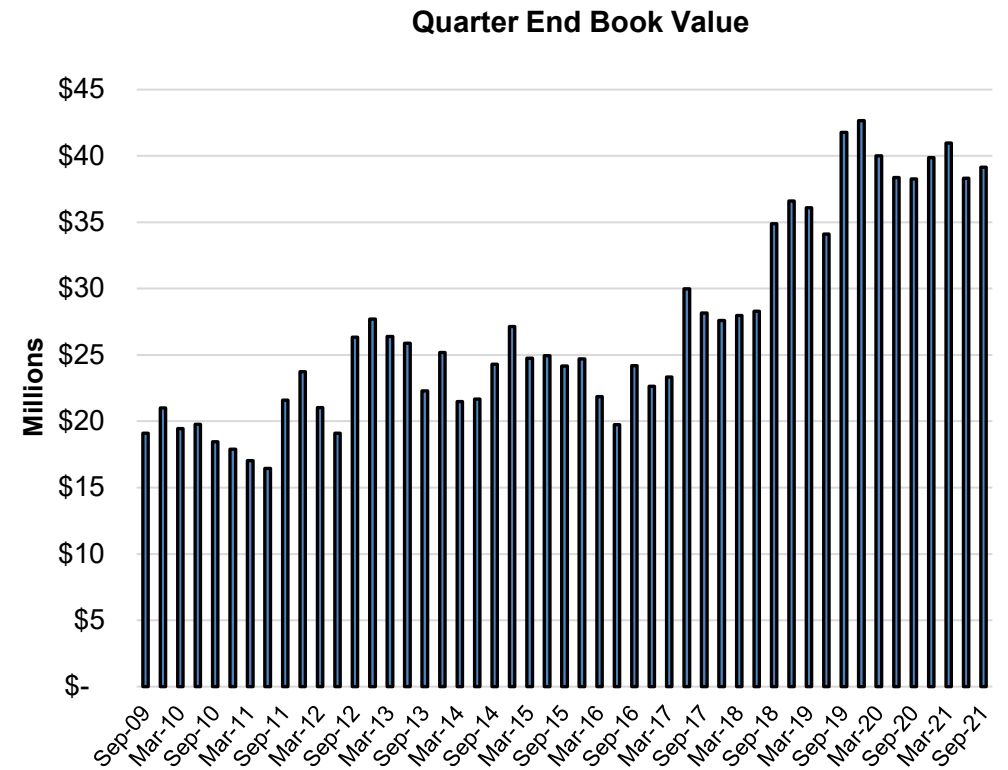
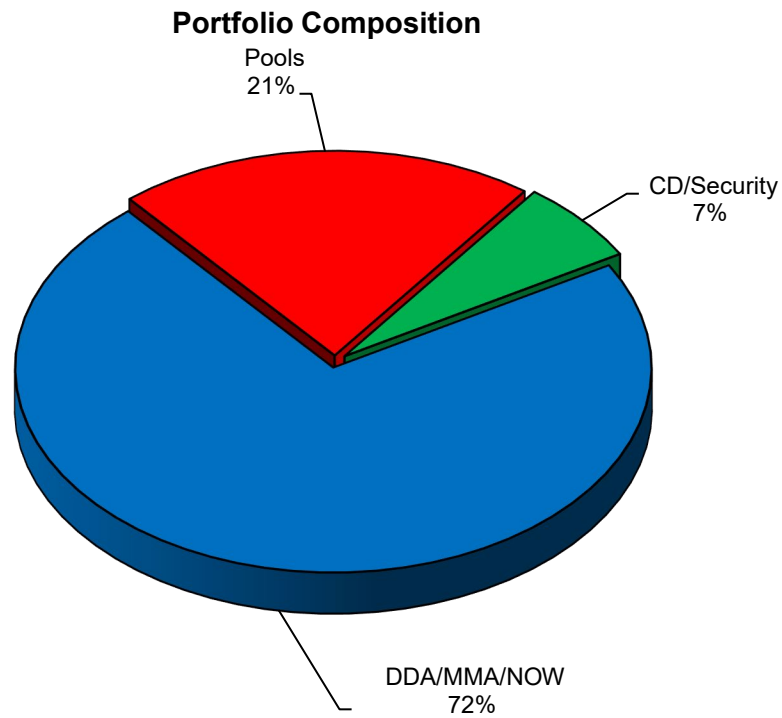


Investment Holdings
September 30, 2021

Description	Rating	Coupon/ Discount	Maturity Date	Settlement Date	Original Face\ Par Value	Book Value	Market Price	Market Value	Life (Days)	Yield
Southside Bank MMA		0.18%	10/01/21	09/30/21	\$ 28,259,424	\$ 28,259,424	1.00	\$ 28,259,424	1	0.18%
TexasDAILY	AAAm	0.02%	10/01/21	09/30/21	471,748	471,748	1.00	471,748	1	0.02%
LOGIC	AAAm	0.04%	10/01/21	09/30/21	309,113	309,113	1.00	309,113	1	0.04%
TexPool	AAAm	0.03%	10/01/21	09/30/21	6,525,426	6,525,426	1.00	6,525,426	1	0.03%
TexPool Prime	AAAm	0.06%	10/01/21	09/30/21	1,044,445	1,044,445	1.00	1,044,445	1	0.06%
BBVA CD		1.73%	10/24/21	10/24/19	1,000,000	1,030,683	100.00	1,030,683	24	1.75%
Prosperity Bank CD		0.70%	07/25/22	07/24/20	1,500,000	1,510,528	100.00	1,510,528	298	0.70%
					\$ 39,110,156	\$ 39,151,366		\$ 39,151,366	13	0.21%
									(1)	(2)

(1) **Weighted average life** - Pools, Money Market Funds, and Bank Deposits are assumed to have a one day maturity.

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Book & Market Value Comparison

Issuer/Description	Yield	Maturity Date	Book Value 06/30/21	Increases	Decreases	Book Value 09/30/21	Market Value 06/30/21	Change in Market Value	Market Value 09/30/21
Southside Bank MMA	0.18%	10/01/21	\$ 25,425,944	\$ 2,833,480	\$ —	\$ 28,259,424	\$ 25,425,944	\$ 2,833,480	\$ 28,259,424
TexasDAILY	0.02%	10/01/21	471,724	24	—	471,748	471,724	24	471,748
LOGIC	0.04%	10/01/21	309,080	33	—	309,113	309,080	33	309,113
TexPool	0.03%	10/01/21	6,956,923	—	(431,497)	6,525,426	6,956,923	(431,497)	6,525,426
TexPool Prime	0.06%	10/01/21	1,044,279	167	—	1,044,445	1,044,279	167	1,044,445
Prosperity Bank CD	0.60%	07/26/21	1,587,972	—	(1,587,972)	—	1,587,972	(1,587,972)	—
BBVA CD	1.75%	10/24/21	1,026,256	4,426	—	1,030,683	1,026,256	4,426	1,030,683
Prosperity Bank CD	0.70%	07/25/22	1,507,896	2,632	—	1,510,528	1,507,896	2,632	1,510,528
TOTAL / AVERAGE	0.21%		\$ 38,330,074	\$ 2,840,761	\$ (2,019,469)	\$ 39,151,366	\$ 38,330,074	\$ 821,292	\$ 39,151,366

**Allocation
September 30, 2021
Book & Market Value**

	Total	Consolidated Cash	Construction	Crime Control District
Southside Bank MMA	\$ 28,259,424	\$ 8,506,864	\$ 19,752,560	\$ –
TexasDAILY	471,748	471,748	–	–
LOGIC	309,113	309,113	–	–
TexPool	6,525,426	6,501,805	–	23,621
TexPool Prime	1,044,445	1,044,445	–	–
10/24/21–BBVA CD	1,030,683	–	1,030,683	–
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Totals	\$ 39,151,366	\$ 16,833,975	\$ 22,293,770	\$ 23,621

**Allocation
June 30, 2021
Book & Market Value**

	Total	Consolidated Cash	Construction	Crime Control District
Southside Bank MMA	\$ 25,425,944	\$ 8,014,221	\$ 17,411,723	\$ –
Texas Term Daily	471,724	471,724	–	–
LOGIC	309,080	309,080	–	–
TexPool	6,956,923	6,933,303	–	23,620
TexPool Prime	1,044,279	1,044,279	–	–
07/26/21–Prosperity Bank CD	1,587,972	1,587,972	–	–
10/24/21–BBVA CD	1,026,256	–	1,026,256	–
07/25/22–Prosperity Bank CD	1,507,896	–	1,507,896	–
Totals	\$ 38,330,074	\$ 18,360,579	\$ 19,945,875	\$ 23,620



AGENDA MEMORANDUM

DATE: October 14, 2021

TO: Honorable City Council Members

FROM: Marcia Reyna, Human Resources and Civil Service Director

THROUGH: Robert Parker, Interim City Manager

SUBJECT: Consider action to adopt a resolution to amend the Fiscal Year 2021-22 Classification Plan for general government employees; providing for repeal; providing for severability; providing an effective date

BACKGROUND/INFORMATION:

The FY2022-2026 Personnel Improvement Plan (PIP) included a Grant Coordinator position scheduled to be funded in FY2022-2023. City Administration has re-evaluated the need for this position and requests approval this current fiscal year. City staff is currently preparing a proposed budget for the expenditures of the American Rescue Plan of 2021 (ARPA) grant that will include a portion of this position's funding. The remaining funding will be covered by the Police Department salary savings or through a future budget amendment transfer of savings from other general fund departments. It is proposed that this position title be changed to Grant and Recognition Program Manager. This will be a hybrid position, working for the Police Department and Finance Department. Police Department duties will include managing the Texas Police Chief Association (TPCA) Recognition Program and assisting with training and employment background checks. Finance Department duties will include managing the ARPA grant and future grants.

FINANCIAL IMPLICATIONS:

FY 2021-22 budget with proposed funding through the American Rescue Plan Act of 2021 (ARPA) and through the General Fund Police Department budget. A budget amendment will be needed at a future date after the ARPA budget is reviewed and approved by City Council.

RECOMMENDATION/ACTION DESIRED:

It is respectfully requested that City Council approve resolution 2021-53 amending the Classification Plan for General Government Employees.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. FY 2021-22 Classification Plan Resolution - 10-25-2021
2. Exhibit A - 2021-22 Classification Plan - General Government Rev 10-25-2021
3. Background: Exhibit A - 2021-22 Classification Plan - General Government Rev 10-25-2021



AGENDA MEMORANDUM

REVIEWED BY:

Marcia Reyna, Human Resources and Civil Service Director Approved - 10/18/2021

Sandra Gibson, Director of Finance Approved - 10/18/2021

Caroline Kelley, City Attorney Approved - 10/18/2021

Robert Parker, Interim City Manager Approved - 10/18/2021

Terri Johnson, Interim City Secretary Final Approval - 10/18/2021

Approved as to form for inclusion on Agenda

**CITY OF WATAUGA, TEXAS
RESOLUTION NO. 2021 -053**

**A RESOLUTION BY THE CITY COUNCIL OF THE CITY
OF WATAUGA, TEXAS APPROVING THE
CLASSIFICATION PLAN FOR GENERAL GOVERNMENT
EMPLOYEES EFFECTIVE OCTOBER 25, 2021;
PROVIDING FOR REPEAL; PROVIDING FOR
SEVERABILITY; AND PROVIDING AN EFFECTIVE
DATE.**

WHEREAS, Article III, Section 3.07(m) of the Home Rule Charter of the City of Watauga, Texas (hereinafter “the City”) provides that the City Council fix the salaries and compensation of the city officers and employees, and establish qualifications, rules and standards of and for all employees of the City; and

WHEREAS, Policy 6.06, Position Classification and Evaluation Policy, of the Watauga Personnel, Administration and Financial Policies and Procedures Manual provides that the Classification Plan shall be approved by the City Council, as amended; and

WHEREAS, the Classification Plan provides for the position title, job code, grade and salary ranges for all employees (full-time, part-time, seasonal) for general government and civil service; and

WHEREAS, the FY2022-2026 Personnel Improvement Plan (PIP) included a Grant Coordinator position scheduled to be funded in FY2022-2023, and City Administration has re-evaluated the need for this position and requests approval this current fiscal year; and

WHEREAS, City Administration proposes that this position title be changed to Grant and Recognition Program Manager, a hybrid position working for the Police Department and Finance Department and including the duties of managing the Texas Police Chief Association (TPCA) Recognition Program and assisting with training and employment background checks for the

Police Department and managing the American Rescue Plan of 2021 (ARPA) grant and future grants for the Finance Department; and

WHEREAS, City Council desires to amend the Classification Plan to provide for the Grant and Recognition Program Manager.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WATAUGA, TEXAS AS FOLLOWS:

I.

The City Council of the City of Watauga hereby finds that the statements set forth in the recitals of this Resolution are true and correct and hereby incorporates such recitals as a part of this Resolution.

II.

The Fiscal Year 2021-22 Classification Plan as set forth in Exhibit "A" attached hereto and incorporated by reference, is hereby adopted.

III.

This Resolution shall be and is hereby cumulative of all other Resolutions of the City of Watauga, Texas, and this Resolution shall not operate to repeal or affect any such other Resolutions except insofar as the provisions thereof might be inconsistent or in conflict with the provisions of this Resolution, in which event, such conflicting provisions, if any, in such other Resolutions are hereby repealed.

IV.

If any section, sub-section, sentence, clause, or phrase of this Resolution shall for any reason be held to be invalid, such decision shall not affect the validity of the remaining portions of the Resolution.

V.

This Resolution shall become effective and shall be in full force and effect from and after the date of passage and adoption by the City Council of the City of Watauga, Texas, and upon application of law and in accordance with Section 3.13 of the Charter of the City of Watauga, Texas.

PASSED AND ADOPTED by the City Council of the City of Watauga, Texas this the 25th day of October, 2021.

APPROVED:

ARTHUR L. MINER, Mayor

ATTEST:

TERRI JOHNSON, Interim City Secretary

APPROVED AS TO FORM AND LEGALITY:

CAROLINE KELLEY, City Attorney
RUSSELL RODRIGUEZ HYDE BULLOCK, LLP



CITY OF WATAUGA, TEXAS
CLASSIFICATION PLAN FISCAL YEAR 2021-22
GENERAL GOVERNMENT EMPLOYEES (Full Time, Part Time and Seasonal)

Job Code	Position Title	FLSA	Salary Range	Pay Basis	Minimum	Midpoint	Maximum
ADM 00-101	City Manager	E	45	Annual Monthly Hourly	\$129,042 \$10,753.49 \$62.04	\$161,302 \$13,441.86 \$77.55	\$193,563 \$16,130.23 \$93.06
ADM 00-112	Deputy City Manager/Fire Chief	E	42	Annual Monthly Hourly	\$111,471 \$9,289.25 \$53.59	\$139,339 \$11,611.58 \$66.99	\$167,207 \$13,933.92 \$80.39
PD 05-101	Chief of Police	E	39	Annual	\$96,293	\$120,366	\$144,439
PW 13-101	Director of Public Works	E		Monthly	\$8,024.42	\$10,030.52	\$12,036.62
FIN 01-101	Director of Finance	E		Hourly	\$46.29	\$57.87	\$69.44
IT 02-101	Director of Technology and Communications	E	36	Annual	\$83,182	\$103,977	\$124,772
HR 00-101	Director of Human Resources and Civil Service	E		Monthly	\$6,931.79	\$8,664.74	\$10,397.69
PCS 04-101	Director of Parks and Community Services	E		Hourly	\$39.99	\$49.99	\$59.99
PD 05-124	Assistant Chief of Police	E	35	Annual	\$79,220	\$99,026	\$118,831
FD 06-108	Assistant Fire Chief	E		Monthly	\$6,601.67	\$8,252.17	\$9,902.58
PW 13-118	Assistant Public Works Director/Building Official	E		Hourly	\$38.09	\$47.61	\$57.13
ADM 00-103	City Secretary	E	33	Annual	\$71,855	\$89,819	\$107,783
LIB 03-101	Director of Library Services	E		Monthly Hourly	\$5,987.94 \$34.55	\$7,484.93 \$43.18	\$8,981.91 \$51.82
FIN 01-102	Assistant Director of Finance	E	32	Annual	\$68,434	\$85,542	\$102,650
IT 02-104	Information Technology Manager	E		Monthly Hourly	\$5,702.80 \$32.90	\$7,128.50 \$41.13	\$8,554.20 \$49.35
PW 13-111	Building Official	E	30	Annual	\$62,071	\$77,589	\$93,107
FBM 08-101	Fleet and Facilities Superintendent	E		Monthly	\$5,172.61	\$6,465.76	\$7,758.92
PW 07-101	Streets and Drainage Superintendent	E		Hourly	\$29.84	\$37.30	\$44.76
PW 13-102	Utilities Superintendent	E					
LIB 03-104	Assistant Library Director	E	27	Annual	\$53,620	\$67,024	\$80,429
IT 02-102	Systems Administrator	E		Monthly	\$4,468.30	\$5,585.37	\$6,702.44
PCS 09-101	Parks Superintendent	NE		Hourly	\$25.78	\$32.22	\$38.67
FIN 01-106	Municipal Court Administrator	E	26	Annual	\$51,066	\$63,833	\$76,599
FIN 11-101	Utility Billing Administrator	E		Monthly Hourly	\$4,255.52 \$24.55	\$5,319.40 \$30.69	\$6,383.28 \$36.83
FIN 01-112	Financial Services Analyst II	E	25	Annual	\$48,635	\$60,793	\$72,952
FBM 08-102	Fleet Supervisor	NE		Monthly	\$4,052.88	\$5,066.09	\$6,079.31
PW 10-101	Storm Drain Supervisor	NE		Hourly	\$23.38	\$29.23	\$35.07
PW 07-102	Streets Supervisor	NE					
PW 13-103	Utilities Supervisor	NE					
PD 05-117	Animal Services Supervisor	E	23	Annual	\$44,113	\$55,141	\$66,169
PD 05-110	Police Records Supervisor	E		Monthly	\$3,676.08	\$4,595.10	\$5,514.12
HR 00-102	Human Resources Generalist	E		Hourly	\$21.21	\$26.51	\$31.81
PD 05-129	Grant and Recognition Program Manager	E					



CLASSIFICATION PLAN FISCAL YEAR 2021-22
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Job Code	Position Title	FLSA	Salary Range	Pay Basis	Minimum	Midpoint	Maximum
ADM 00-113	Media Specialist	NE					
IT 02-103	IT Support Specialist	NE					
FIN 01-113	Financial Services Analyst I	E					
ADM 00-110	Deputy City Secretary	NE					
LIB 03-118	Senior Librarian - Adult Services	E					
LIB 03-117	Senior Librarian - Youth Services	E					
FIN 01-114	Financial Services Technican II	NE	22	Annual	\$42,012	\$52,515	\$63,018
PW 07-110	Construction Inspector	NE		Monthly	\$3,501.03	\$4,376.28	\$5,251.54
PW 07-105	Combination Building Inspector	NE		Hourly	\$20.20	\$25.25	\$30.30
LIB 03-102	Librarian - Adult Services	E					
LIB 03-105	Librarian - Youth Services	E					
FBM 08-105	Mechanic II	NE	21	Annual	\$40,012	\$50,015	\$60,018
PCS 04-103	Recreation Programmer	NE		Monthly	\$3,334.31	\$4,167.89	\$5,001.47
PD 05-125	Senior Code Enforcement Officer	NE		Hourly	\$19.24	\$24.05	\$28.85
FIN 01-115	Financial Services Technican I	NE					
PD 05-127	Reserve Police Officer - Part Time	NE	20	Annual	\$38,106	\$47,633	\$57,160
PW 13-116	Planning & Zoning Coordinator	E		Monthly	\$3,175.53	\$3,969.42	\$4,763.30
				Hourly	\$18.32	\$22.90	\$27.48
PW 07-104	Equipment Operator (Public Works)	NE	19	Annual	\$36,292	\$45,365	\$54,438
PW 10-103	Equipment Operator (Street Sweeper)	NE		Monthly	\$3,024.32	\$3,780.40	\$4,536.48
PW 10-102	Equipment Operator (Storm Drainage Utility)	NE		Hourly	\$17.45	\$21.81	\$26.17
PW 13-112	Equipment Operator (Jet Vac)	NE					
PW 13-105	Equipment Operator (Utilities)	NE					
PW 13-117	Equipment Operator (Utilities)/Water Conservation Coordinator	NE					
FIN 11-110	Senior Deputy Court Clerk	NE					
PW 13-110	Water Quality Technician	NE					
PD 05-126	Code Enforcement Officer	NE	18	Annual	\$34,564	\$43,205	\$51,845
FBM 08-106	Mechanic I	NE		Monthly	\$2,880.30	\$3,600.38	\$4,320.45
PW 07-111	Signs and Signals Technician	NE		Hourly	\$16.62	\$20.77	\$24.93
FIN 11-103	Utility Billing Representative	NE	17	Annual	\$32,918	\$41,147	\$49,377
LIB 03-119	Technical Services Supervisor	NE		Monthly	\$2,743.15	\$3,428.93	\$4,114.72
PD 05-112	Administrative Assistant (Police)	NE		Hourly	\$15.83	\$19.78	\$23.74
PD 05-116	Administrative Assistant (Animal Services)	NE					
FIN 00-116	Administrative Assistant (Financial Services)	NE					
PD 05-118	Animal Control Officer	NE					
FBM 08-108	Building Maintenance Technician II	NE					
LIB 03-106	Circulation Supervisor	NE					
FIN 01-108	Deputy Court Clerk	NE					
PW 07-109	Permit Technician	NE					
PCS 09-105	Chemical Applicator/Irrigation Technician	NE	16	Annual	\$31,350	\$39,188	\$47,025
PD 05-121	Property Room Technician	NE		Monthly	\$2,612.52	\$3,265.65	\$3,918.78
				Hourly	\$15.07	\$18.84	\$22.61
FBM 08-103	Building Maintenance Technician I	NE	15	Annual	\$29,857	\$37,322	\$44,786
PCS 09-102	Parks Maintenance Worker II	NE		Monthly	\$2,488.11	\$3,110.14	\$3,732.17
PW 10-104	Storm Drain Maintenance Worker II	NE		Hourly	\$14.35	\$17.94	\$21.53



CLASSIFICATION PLAN FISCAL YEAR 2021-22
GENERAL GOVERNMENT EMPLOYEES (Full Time, Part Time and Seasonal)

Job Code	Position Title	FLSA	Salary Range	Pay Basis	Minimum	Midpoint	Maximum
FBM 08-107	Fleet Services Technician	NE					
FBM 08-109	Janitorial Service Technician II	NE					
PW 07-107	Streets Maintenance Worker II	NE					
PW 13-106	Utilities Maintenance Worker II (Water)	NE					
PW 13-108	Utilities Maintenance Worker II (Sewer)	NE					
FIN 11-105	Water Service Field Representative	NE					
ADM 00-111	Records Clerk	NE					
PD 05-114	Police Records Clerk	NE					
PCS 09-103	Parks Maintenance Worker I	NE	13	Annual	\$27,082	\$33,852	\$40,622
PW 10-105	Storm Drain Maintenance Worker I	NE		Monthly	\$2,256.79	\$2,820.99	\$3,385.19
PW 07-108	Streets Maintenance Worker I	NE		Hourly	\$13.02	\$16.27	\$19.53
PW 13-107	Utilities Maintenance Worker I (Water)	NE					
PW 13-109	Utilities Maintenance Worker I (Sewer)	NE					
LIB 03-111	Library Assistant (Circulation)	NE	12	Annual	\$25,792	\$32,240	\$38,688
LIB 03-114	Library Assistant (Youth Services) - Part Time	NE		Monthly	\$2,149.33	\$2,686.66	\$3,223.99
FIN 11-109	Court Assistant	NE		Hourly	\$12.40	\$15.50	\$18.60
LIB 03-107	Library Assistant (Circulation) - Part Time	NE					
LIB 03-110	Library Assistant (Technical Services) - Part Time	NE					
LIB 03-108	Library Assistant (Reference) - Part Time	NE					
LIB 03-116	Summer Library Assistant - Part Time	NE					
FBM 08-104	Janitorial Service Technician	NE	11	Annual	\$24,564	\$30,705	\$36,846
				Monthly	\$2,046.98	\$2,558.72	\$3,070.47
				Hourly	\$11.81	\$14.76	\$17.71
PD 05-119	Kennel Technician - Part Time	NE	10	Annual	\$23,394	\$29,243	\$35,091
FIN 01-111	Summer Finance Intern - Part Time	NE		Monthly	\$1,949.50	\$2,436.92	\$2,924.25
PW 10-106	Summer Storm Drain Maintenance Worker	NE		Hourly	\$11.25	\$14.06	\$16.87
PCS 09-106	Summer Parks Maintenance Worker	NE					
LIB 03-112	Library Aide - Part Time	NE	9	Annual	\$22,280	\$27,850	\$33,420
LIB 03-113	Library Aide (Technical Services) - Part Time	NE		Monthly	\$1,856.67	\$2,320.83	\$2,785.00
PCS 04-106	Recreation Attendant - Part Time	NE		Hourly	\$10.71	\$13.39	\$16.07
LIB 03-115	Summer Library Aide - Part Time	NE					



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PW 07-107	Streets Maintenance Worker II	NE					
PW 13-106	Utilities Maintenance Worker II (Water)	NE					
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ADM 00-111	Records Clerk	NE					
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LIB 03-107	Library Assistant (Circulation) - Part Time	NE					
LIB 03-110	Library Assistant (Technical Services) - Part Time	NE					
LIB 03-108	Library Assistant (Reference) - Part Time	NE					
LIB 03-116	Summer Library Assistant - Part Time	NE					
FBM 08-104	Janitorial Service Technician	NE	11	Annual	\$24,564	\$30,705	\$36,846
				Monthly	\$2,046.98	\$2,558.72	\$3,070.47
				Hourly	\$11.81	\$14.76	\$17.71
PD 05-119	Kennel Technician - Part Time	NE	10	Annual	\$23,394	\$29,243	\$35,091
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PW 10-106	Summer Storm Drain Maintenance Worker	NE		Hourly	\$11.25	\$14.06	\$16.87
PCS 09-106	Summer Parks Maintenance Worker	NE					
LIB 03-112	Library Aide - Part Time	NE	9	Annual	\$22,280	\$27,850	\$33,420
LIB 03-113	Library Aide (Technical Services) - Part Time	NE		Monthly	\$1,856.67	\$2,320.83	\$2,785.00
PCS 04-106	Recreation Attendant - Part Time	NE		Hourly	\$10.71	\$13.39	\$16.07
LIB 03-115	Summer Library Aide - Part Time	NE					



AGENDA MEMORANDUM

DATE: October 13, 2021

TO: Honorable City Council Members

FROM: Sandra Gibson, Director of Finance

THROUGH: Robert Parker, Interim City Manager

SUBJECT: Consider action to adopt a resolution by the City Council of the City of Watauga, Texas amending Policy 13.02, Purchasing Card Policy, of the Personnel, Administration and Financial Policies and Procedures Manual; providing for repeal; providing for severability; and providing an effective date

BACKGROUND/INFORMATION:

The City wishes to update the Purchasing Card Policy to add credit card issuance to the City Council for travel and to update the on-line credit card platform procedures. It is desirable to issue a credit card to City Council for travel in order to circumvent various problems City Council members have experienced with hotel credit card authorization forms. The Council issued card will be limited to hotel, travel and parking and will be managed through the City Secretary's office. The policy is also updated to include the procedures for the credit card on-line platform to manage receipts, accounting records and provide for on-time payments to the City's credit card vendor.

FINANCIAL IMPLICATIONS:

N/A

RECOMMENDATION/ACTION DESIRED:

Staff recommends approval of the resolution amending Policy 13.02 Purchasing Card Policy

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. Resolution Policy 12.03 Purchasing Card
2. Attachment A 13.02 Purchasing Card Policy revised 10-25-2021
3. Background: 13.02 Purchasing Card Policy DRAFT revisions

REVIEWED BY:

Sandra Gibson, Director of Finance
Caroline Kelley, City Attorney

Approved - 10/18/2021
Approved - 10/18/2021



AGENDA MEMORANDUM

Robert Parker, Interim City Manager
Terri Johnson, Interim City Secretary
Approved as to form for inclusion on Agenda

Approved - 10/18/2021
Final Approval - 10/18/2021

**CITY OF WATAUGA, TEXAS
RESOLUTION NO. 2021-052**

**A RESOLUTION BY THE CITY COUNCIL OF THE CITY
OF WATAUGA, TEXAS AMENDING POLICY 13.02,
PURCHASING CARD POLICY, OF THE PERSONNEL,
ADMINISTRATION AND FINANCIAL POLICIES AND
PROCEDURES MANUAL; PROVIDING FOR REPEAL;
PROVIDING FOR SEVERABILITY; AND PROVIDING AN
EFFECTIVE DATE.**

WHEREAS, Article III, Section 3.04 of the Home Rule Charter of the City of Watauga, Texas (hereinafter “the City”) provides that the mayor and councilmembers shall be entitled to actual and necessary expenses incurred in the performance of their specific official duties of the office; and

WHEREAS, Article III, Section 3.07(c) of the Home Rule Charter of the City provides that the city council is specifically granted the power to manage and control the finances of the City; and

WHEREAS, the City Council wishes to revise current Policy 13.02, Purchasing Card Policy, to add City Council purchasing cards for travel expenses, to update procedures to include the on-line purchasing card platform and to provide rules related to the use of generic credit cards.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF WATAUGA, TEXAS AS FOLLOWS:

I.

The City Council of the City of Watauga hereby finds that the statements set forth in the recitals of this Resolution are true and correct and hereby incorporates such recitals as a part of this Resolution.

II.

The City's Personnel, Administration and Financial Policies and Procedures Manual is hereby amended by deleting Policy 13.02 and substituting therefore a new Policy 13.02 as set forth in Exhibit "A" attached hereto and incorporated by reference.

III.

This Resolution shall be and is hereby cumulative of all other Resolutions of the City of Watauga, Texas, and this Resolution shall not operate to repeal or affect any such other Resolutions except insofar as the provisions thereof might be inconsistent or in conflict with the provisions of this Resolution, in which event, such conflicting provisions, if any, in such other Resolutions are hereby repealed.

IV.

If any section, sub-section, sentence, clause, or phrase of this Resolution shall for any reason be held to be invalid, such decision shall not affect the validity of the remaining portions of the Resolution.

V.

This Resolution shall become effective and shall be in full force and effect from and after the date of passage and adoption by the City Council of the City of Watauga, Texas, and upon application of law and in accordance with Section 3.13 of the Charter of the City of Watauga, Texas.

PASSED AND ADOPTED by the City Council of the City of Watauga, Texas this the 25th day of October, 2021.

APPROVED:

ARTHUR L. MINER, Mayor

ATTEST:

TERRI JOHNSON, Interim City Secretary

APPROVED AS TO FORM AND LEGALITY:

CAROLINE KELLEY, City Attorney
RUSSELL RODRIGUEZ HYDE BULLOCK, LLP



CITY OF WATAUGA – PERSONNEL, ADMINISTRATION AND FINANCIAL POLICIES AND PROCEDURES MANUAL

POLICY TITLE	Purchasing Card Policy
INITIAL EFFECTIVE DATE	June 25, 2018
LAST REVISION DATE	Replaces <i>Section 23.13</i> of the Personnel, Administration and Financial Policies and Procedures Manual approved on February 24, 2014.
POLICY NUMBER	13.02

OBJECTIVE This policy sets forth measures to effectively manage purchasing card usage by City employees and City Council members.

SCOPE This policy applies to all employees and City Council members with issued purchasing cards.

POLICY

A. Purchasing Card Policy

Employees - Purchasing's primary function is to make purchases of goods and services in the most cost effective manner. The purpose of the Purchasing Card program is to provide authorized City employees ("cardholders") with an efficient and controllable method of making designated and authorized small dollar purchases. The card will be issued in the employee's name and the City of Watauga clearly marked on the card. Cards will be issued only to eligible employees and is to be used only for official authorized city purchases. The success of the Purchasing Card program and its continuing use depends on your cooperation and participation.

Purchases will be limited to pre-authorized small dollar purchases under \$3,000 and for travel-related expenses. The card is to be used only for official city purchases. Use of the purchasing card for large purchases or capitalized equipment is not allowed. In the event an item is awarded to another vendor, a cardholder is not allowed to use the purchasing card to circumvent the awarded vendor. Check with finance if in doubt of an awarded product prior to purchase.

City Council – Purchases will be limited to travel related expenses. The card is to be used only for official city purchases. Per diem and mileage will still be handled by check request. Council credit cards will be signed out and managed through the City Secretary's office.

B. Cardholder responsibilities:

1. Cardholder must use the Purchasing card for legitimate business purposes only.
2. Cardholder must maintain the Purchasing card in a secure location at all times.
3. Cardholder must not allow other individuals to use their Purchasing card.
4. Cardholder must adhere to the purchase limits, restrictions, Purchasing card policy, and all Procurement state and local laws and regulations.

5. Cardholder must review all merchant receipts and ensure it is without sales tax and resolve problems immediately. The City of Watauga is exempt from sales tax.
6. Cardholder must obtain all receipts, authorizations, and budget coding for all transactions and submit required information via the SmartData platform for reconciliation by the 10th of each month.
7. Cardholder must assist Finance in resolving disputes or billing errors.
8. Cardholder must not accept cash in lieu of a credit to the Purchasing card.
9. Cardholder agrees not to split a purchase to circumvent the limitations of the Purchasing card, Purchasing policies, or state law provisions.
10. Cardholder agrees not to use another cardholder's card to circumvent the purchase limit assigned to either cardholder or the limitations of the Purchasing card.
11. Cardholder must immediately report a lost or stolen card to Finance.
12. Cardholder must return the Purchasing card to Finance upon transferring departments within the City or upon termination with the City of Watauga.
13. Cardholder must report any erroneous transactions to Finance immediately.
14. Cardholder must upload all required information regarding purchases into the Smart Data platform by the 10th of each month.

C. Finance is responsible for the Purchasing Card program. Responsibilities of Finance include:

1. Finance is the main contact between the card issuer and the City of Watauga.
2. Finance will submit completed applications to the card issuer and take initial receipt of the Purchasing card.
3. Finance will provide training to cardholders as requested.
4. Finance will receive, review and reconcile the Purchasing card statement.
5. Finance will review usage of the Purchasing card data.
6. Finance will ensure that lost or stolen cards have been closed by the card issuer.

D. Requirements for Receiving a Purchasing Card

Before receiving a Purchasing card, employee or Council member is required to sign the City of Watauga Purchasing Card Agreement. By signing the agreement, employee or Council member indicates that he/she understands the intent of the program and will comply with all guidelines of this program as well as all other City of Watauga Policies, state laws and regulations relating to the expenditures of funds.

E. Purchasing Card Maintenance and Closure

All contact with the card issuer for set up, maintenance and closure will be handled by Finance.

Finance is required to close an account if a cardholder: (a) moves to a new position in which a Purchasing card is not required, (b) terminates employment, or (c) for any of the following reasons which will also subject the cardholder to disciplinary action in accordance with the City of Watauga Policies and/or state laws and regulations:

1. Purchasing card is used for personal or unauthorized purposes.
2. Purchasing card is used to purchase alcoholic beverages or any substance, material, or service which violates policy, law or regulation pertaining to the City of Watauga.
3. Cardholder allows the card to be used by another individual.

4. Purchasing card is used for a purchase to circumvent awarded vendors, limitations of the Purchasing card, or state procurement laws.
5. Cardholder uses another cardholder's card to circumvent the purchase limit assigned to either cardholder or the limitations of the Purchasing card.
6. Cardholder fails to provide the required receipts and documentation.
7. Cardholder fails to provide, when requested, information about any specific purchase.
8. Cardholder does not adhere to all Purchasing card policies, procedures and state laws and regulations.

F. Purchasing Card Use

The card works just like a personal credit card, except all charges are paid in full by the City of Watauga. It is to be used only for the purchase of pre-authorized small dollar purchases and for travel-related expenses.

The City of Watauga requires that certain types of merchants be blocked from Purchasing card use. Among these are entertainment, beer and wine stores, gambling establishments, and cash transactions. Transactions are blocked at the point-of-sale level.

All purchases made on the Purchasing card are for City business only. The card is not a personal line of credit.

The card may not be used to pay spouse/family expenses incurred while traveling except those that normally cannot be separated for payment such as hotel room. Only City business expenses are allowable and personal expenses should be paid separately by the cardholder.

All unauthorized purchases must be resolved in an appropriate method so that the City does not bear the cost. Resolutions will be handled in the following methods:

1. Cardholder will return the unauthorized item to the merchant for credit on the card account and submit the credit receipt as part of the statement cycle remittance.
2. If the item cannot be returned, the cardholder will be required to submit payment for the full amount of the purchase to the City. If payment is not received, the amount of the purchase will be deducted from the cardholder's paycheck.
3. In addition, an unauthorized purchase may subject the cardholder to disciplinary action and/or revocation of card privileges.

G. Account Number Security and Storage

Cardholders should always treat the City of Watauga Purchasing card with at least the same level of care as one does their own personal credit cards. The card should be maintained in a secure location and the card account number should be carefully guarded. The only person entitled to use the card is the person whose name appears on the face of the card. The card may not be lent to another person for any reason.

In the event a generic department card is issued one main employee delegate is responsible for the safekeeping of the card and the appropriate check out process is maintained accordingly. The department delegate is responsible for all charges that occur on the card.

The City Secretary's Office and City Council will be issued one generic card for use and check out by various employees or members.

H. Cardholder Liability

The Purchasing card is a corporate charge card and will not affect personal credit. It is each cardholder's responsibility to ensure the card is used within the guidelines of this program. Failure to comply with program guidelines may result in permanent revocation of the card, notification of the situation to management, and disciplinary action in accordance with City Policy relating to disciplinary action and termination.

I. Lost, Stolen or Misplaced Purchasing Cards

Report lost or stolen cards immediately to Finance.

J. Erroneous Declines

There may be certain situations when a merchant receives a decline message when processing Purchasing card transactions. If the cardholder feels this decline is in error, contact Finance for assistance. If the purchase is being made outside of normal business hours, the cardholder must find an alternate payment method.

K. Credits

Merchants must issue a credit to the card account for any item or service they have agreed to refund. **Under no circumstances should a cardholder accept cash in lieu of a credit to the card account.**

L. Disputes and Billing Errors

In the case of an error, first contact the merchant and try to reach an agreement. Most disputes can be resolved in this manner. If cardholder is unable to reach an agreement contact Finance on any disputes and billing errors for assistance.

M. Sales Tax

The City of Watauga is exempt from most forms of sales tax. Even though the card will state that we are tax exempt, it is the responsibility of the cardholder to remind all merchants of our tax-exempt status. All cardholders must carry with them a tax-exempt certificate verifying our status in the event a merchant requires such verification. These certificates are available from Finance or the City Information file. If tax is included, the cardholder will be responsible for ensuring the merchant is reimbursing the tax amount. If the cardholder does not show a good faith effort to avoid paying sales tax, the cardholder will then be responsible for reimbursing the City for the tax.

An exception to this rule is sales tax at eating establishments, hotels, airlines, and other travel related merchants, when traveling, as these charges are difficult to have removed.

N. Audit Assistance

Periodic audits will be performed to assure compliance with the guidelines of the Purchasing card program, City policies, and state laws and regulations.

O. Documentation

Supporting documentation in the form of a credit card receipt and credit card charge receipt form must accompany each transaction. The receipt must display the date of purchase, merchant name, itemized descriptions, cost and tax-exempt status. If a receipt is lost, the cardholder must attempt to obtain a copy of the receipt from the merchant. Cardholders who repeatedly lose receipts will be subject to card revocation.

As a public entity, the City is expected to be able to demonstrate to the public that it has spent their tax dollars wisely. All participants in the Purchasing card program are responsible for insuring purchases made with the card will withstand the scrutiny of the press, public and audits.

Therefore, the cardholder must make sure he/she has adequate documentation, including a clear explanation of exactly what the purchase is for.



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5. Cardholder must review all merchant receipts and ensure it is without sales tax and resolve problems immediately. The City of Watauga is exempt from sales tax.
6. Cardholder must obtain all receipts, authorizations, and budget coding for all transactions and turn into the Purchasing Office submit required information via the SmartData platform for reconciliation as requested by the 10th of each month.
7. Cardholder must assist Purchasing Finance in resolving disputes or billing errors.
8. Cardholder must not accept cash in lieu of a credit to the Purchasing card.
9. Cardholder agrees not to split a purchase to circumvent the limitations of the Purchasing card, Purchasing policies, or state law provisions.
10. Cardholder agrees not to use another cardholder's card to circumvent the purchase limit assigned to either cardholder or the limitations of the Purchasing card.
11. Cardholder must immediately report a lost or stolen card to the Purchasing Office Finance.
12. Cardholder must return the Purchasing card to the Purchasing Office Finance upon transferring departments within the City or upon termination with the City of Watauga.
13. Cardholder must report any erroneous transactions to the Purchasing Office Finance immediately.
14. Cardholder must complete the Credit Card Charge Receipt Form and attach charge receipt to form for each transaction. Completed forms must be submitted to the Purchasing Office when requested upload all required information regarding purchases into the Smart Date platform by the 10th of each month..

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1. Purchasing Office Finance is the main contact between the card issuer and the City of Watauga.
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4. Purchasing Office will handle disputed charges/discrepancies.
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13.02 Purchasing Card Policy

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The City Secretary's Office and City Council will be issued one generic card for use and check out by various employees or members.

All other documentation concerning the Purchasing card will be maintained by the Purchasing Office.

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An exception to this rule is sales tax at eating establishments, hotels, [airlines](#) [airlines](#), and other travel related merchants, when traveling, as these charges are difficult to have removed.

N. Audit Assistance

Periodic audits will be performed to assure compliance with the guidelines of the Purchasing card program, [and City policies](#), [and state laws and regulations](#).

O. Documentation

Supporting documentation in the form of a credit card receipt and credit card charge receipt form must accompany each transaction. The receipt must display the date of purchase, merchant name, itemized descriptions, cost and tax exempt status. If a receipt is lost, the cardholder must attempt to obtain a copy of the receipt from the merchant. Cardholders who repeatedly lose receipts will be subject to card revocation.

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Therefore, the cardholder must make sure he/she has adequate documentation, including a clear explanation of exactly what the purchase is for.



AGENDA MEMORANDUM

DATE: October 15, 2021

TO: Honorable City Council Members

FROM: Paul Hackleman, Director of Public Works

THROUGH: Robert Parker, Interim City Manager

SUBJECT: Consider action on a declaration of two (2) Ford trucks as surplus property and to authorize disposal of the surplus property

BACKGROUND/INFORMATION:

The Surplus Asset Disposal Policy No. 13.05 of the Personnel, Administrative and Financial Policies and Procedures Manual allows for the Director of Public Works to recommend real property for the City Council to review and declare as surplus.

To that end, there is one (1) 2011 Ford F-250 Truck being surplussed in the Parks and Community Services Department creating the opportunity to sell or trade in existing truck. At this time, the existing Parks truck is planned to be traded-in on a new Ford F-350 Truck. Also, there is one (1) 2008 Ford F-250 Truck being surplussed in the Police Department since the transfer of the bed to the new truck was completed on October 20, 2021.

Once the property has been declared surplus by City Council, surplus equipment may be disposed of by one of the following methods:

1. Sold competitively by public auction or by accepting sealed bids;
2. Traded in for new equipment; or
3. If the item has no value except for salvage, the City Manager or his designee, may authorize such items to be sold as scrap.

Sections 51.015 and 51.034 of the Texas Local Government Code requires the City Council to approve the disposal of personal property.

City employees/City Council Members and their immediate families may not purchase any surplus city property either by sealed bid, at an auction, or resale from a trade-in. Texas Local Government Code Chapter 252 requires Council approval of expenditures in excess of \$50,000.



AGENDA MEMORANDUM

Local Government Codes allow government entities the ability to utilize contracts for products and services that meet all State and Local purchasing laws and requirements.

FINANCIAL IMPLICATIONS:

Revenue from sale of property shall be restored to the appropriate originating funds. Property traded shall reduce the expense of new property purchased.

RECOMMENDATION/ACTION DESIRED:

City staff respectfully recommends City Council declare the real property as attached to this agenda item as surplus property.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. 2021-22 Surplus - Parks and Animal Trucks

REVIEWED BY:

Paul Hackleman, Director of Public Works

Caroline Kelley, City Attorney

Robert Parker, Interim City Manager

Terri Johnson, Interim City Secretary

Approved as to form for inclusion on Agenda

Approved - 10/19/2021

Approved - 10/19/2021

Approved - 10/20/2021

Final Approval - 10/20/2021

LOT#	BRAND	MODEL	DESCRIPTION	CONDITION
Parks	Ford	F250	2011 Ford F250 Pickup Truck, White, Standard Cab, Long Bed (VIN#1FTBF2A60BED01850) Unit# 620	GOOD
POLICE	Ford	f250	2008 Ford F250 Cab & Chassis, White, (VIN#1FTNF20548ED95455) Unit# 104	FAIR

LOCATION
FLEET
FLEET



AGENDA MEMORANDUM

DATE: October 15, 2021

TO: Honorable City Council Members

FROM: Paul Hackleman, Director of Public Works

THROUGH: Robert Parker, Interim City Manager

SUBJECT: Consider action to approve the purchase of four (4) Ford Trucks from Sam Pack's Ford through the BuyBoard cooperative purchasing program

BACKGROUND/INFORMATION:

The Fiscal Year 2021-22 approved Budget provides funding for the four (4) Ford Trucks as listed below:

1. F-150 Hybrid Truck - Public Works - 2021 Certificate of Obligation (CO)
2. F-350 Truck - Parks and Recreation - 2021 CO
3. F-150 Truck - Code Enforcement - Police Department - 2021 CO
4. F-350 Truck - Public Works - Storm Water Equipment Replacement Fund

Texas Local Government Code Chapter 252 requires Council approval of expenditures in excess of \$50,000.

The Fleet and Building Maintenance Division of the Public Works Department obtained quotes for four (4) Ford Trucks from Sam Pack's Five Star Ford utilizing the Buyboard Contract #601-19 in the amount of \$168,562.40.

The City is a member of the Buyboard cooperative which allows us to utilize contracts offered through the cooperative per Local Government Code Section 271.102 and Texas Government Code 791. The codes were designed to allow government entities the ability to utilize contracts for products and services that meet all State and Local purchasing laws and requirements.

FINANCIAL IMPLICATIONS:

These purchases are funded in Fiscal Year 2021-22 Approved Budget

RECOMMENDATION/ACTION DESIRED:

Staff respectfully recommends the City Council approve the purchase of four (4) Ford Trucks from Sam Pack's Five Star Ford



AGENDA MEMORANDUM

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. Quote - F350 - Public Works Storm - Sam Packs
2. Quote - F150 - PD- Code - Sam Packs
3. Quote - F150 Hybrid - Public Works - Sam Packs
4. Quote - F350 - Parks - Sam Packs
5. Sam Pack's Purchasing Rider
6. SAM PACK 1295 FORM

REVIEWED BY:

Paul Hackleman, Director of Public Works
Caroline Kelley, City Attorney
Deby Woodard, Assistant Director of Finance
Robert Parker, Interim City Manager
Terri Johnson, Interim City Secretary
Approved as to form for inclusion on Agenda

Approved - 10/19/2021
Approved - 10/19/2021
Approved - 10/20/2021
Approved - 10/20/2021
Final Approval - 10/20/2021

CUSTOMIZED PRODUCT PRICING SUMMARY BASED ON CONTRACT

Cars and Light Trucks

Team Members - Kevin Moore - Jessica Wooten - Jorge Guerra - Jose Deanda - Alan Rosner

Contract Name: BuyBoard 601-19

End User: **CITY OF WATAUGA** Sam Pack's Rep: **KEVIN MOORE**
Contact: **CLINT HARMON** Date: **9.17.21**
Contact TN/Email _____ Phone # _____

Product Description: **2022 FORD F350 CREW CAB 2WDR**

Interior and
Exterior Color
Code

WHITE

A. Bid Line # **128 F3E ENDING W3G** Base Price: **\$ 20,479.00**

B. Published Options (Itemize Each Below)

Code	Description	Bid Price	Code	Description	Bid Price
	Automatic Transmission	Included			
	Air Conditioning	Included			
	POWER GROUP	\$ 1,025.00		ELOCKING REAR END	\$ 475.00
	CRUISE	\$ 375.00		6.2L GAS ENGINE	INCLUDED
	SYNC SYSTEM	Included		HD SERVICE SUSPENSION	\$ 175.00
	UPFITTER SWITCHES	Included			
18b	PLAT FORM BOARDS	\$ 445.00			
	REAR VIEW CAMERA PREP	\$ 415.00			
W3G	CREW CAB OPTION DUAL REAR	\$ 6,476.00			

Total of B. - Published Options **\$ 9,386.00**

C. Dealer Published Options

Code	Description	Bid Price	Code	Description	Bid Price

Total of C. - Dealer Published Options **\$ -**

D. Off Menu Options

Code	Description	Bid Price	Code	Description	Bid Price
	KNAPHEIDE DUMP BODY WITH DROP SIDES SAME AS LAST UNIT	\$13,758.00			
	HITCH	INCLUDED			

Off Menu Options limited to 25% of Published Price Current % **46.07%** Total of D. - Off Menu Options **\$13,758.00**

Delivery Charges	33 Miles @ \$2.75/mile	\$ 90.75
Floorplan Expense	30 Days	\$ 197.20
Lot Insurance Expense	30 Days	\$ 197.20
Manufacturer Destination and Delivery		\$ 1,695.00
	Total Each	\$ 45,803.15
Quantity Ordered 1 X F =		\$ 45,803.15
Administrative Fee		\$ 400.00
Trade In Allowance - Non-Equipment debits and credits		\$ -
TOTAL PURCHASE PRICE INCLUDING ADMIN FEE		\$46,203.15

GOVERNMENTAL CONTRACT AND PURCHASING RIDER
FOR CONTRACTS WITH THE CITY OF WATAUGA, TEXAS

By submitting a response to a solicitation or bid, or by entering into a contract for goods or services and/or by accepting a purchase order, the contractor, consultant or vendor, identified below, agrees that the below terms and conditions shall govern all agreements with the City unless otherwise agreed to by a **specifically executed provision** within the contract or purchase order, provided same is permissible by law. Absent a specifically executed provision, the below terms are **BINDING** and **SUPERSEDE** any and all other terms and/or conditions whether oral or written.

Application. This GOVERNMENTAL CONTRACT AND PURCHASING RIDER FOR CONTRACTS WITH THE CITY OF WATAUGA, TEXAS ("Governmental Rider") applies to, is part of, and takes precedence over any conflicting provision in or attachment to the Response to Solicitation or Bid, Contract or Purchase Order, as applicable, ("Contract") (attached hereto) of Sam Pack's Ford, ("Vendor"). The Contract involved in this Governmental Rider is described as follows:

Vehicle Purchases

Payment Provisions. The City's payments under the Contract, including the time of payment and the payment of interest on overdue amounts, are subject to Chapter 2251, Texas Government Code. The City reserves the right to modify any amount due to Vendor presented by invoice to the City if necessary to conform the amount to the terms of the contract.

Multiyear Contracts. If the City's City Council does not appropriate funds to make any payment for a fiscal year after the City's fiscal year in which the contract becomes effective and there are no proceeds available for payment from the sale of bonds or other debt instruments, then the Contract automatically terminates at the beginning of the first day of the successive fiscal year. (Section 5, Article XI, Texas Constitution). It is understood and agreed the City shall have the right to terminate the Contract at the end of any City fiscal year if the governing body of the City does not appropriate funds sufficient to continue the contract, as determined by the City's budget for the fiscal year in question. The City may execute such termination by giving Vendor a written notice of termination at the end of its then current fiscal year.

Local Preference. The City Council supports the local preference option for purchasing. In accordance with Chapter 271.9051 of the State of Texas Local Government Code, the City Council may choose to award a competitive bid to a bidder whose principal place of business is in the City limits, provided that this bid is within 5% of the lowest bid price received, provided such action is not prohibited by law. The City determines that any such local bidder offers the City the best combination of contract price and additional economic development opportunities.

No Ex-Parte Communications during Competitive Bidding Period. To insure the proper and fair evaluation of a response, the City prohibits ex parte communication initiated by the proposed Vendor to a City official or employee evaluating or considering the responses prior to the time a formal decision has been made. Questions and other communication from vendors will be

permissible until 5:00 pm on the day specified as the deadline for questions. Any communication between the proposed Vendor and the City after the deadline for questions will be initiated by the appropriate City official or employee in order to obtain information or clarification needed to develop a proper and accurate evaluation of the response. Ex parte communication may be grounds for disqualifying the offending Vendor from consideration or award of the solicitation then in evaluation, or any future solicitation.

Abandonment or Default. A Vendor who abandons or defaults the work on the contract and causes the City to purchase goods, materials or services elsewhere may be charged for any increased cost of goods, materials and/or services related thereto; may be considered disqualified in any re-advertisement of the service; and may not be considered in future bids for the same type of work for a period of three years for the same scope of work, goods or services.

Disclosure of Litigation. Each prospective Vendor shall include in its proposal a complete disclosure of any civil or criminal litigation or investigation pending which involves the Vendor or which has occurred in the past in which the Vendor has been judged guilty or liable by a competent court regardless of whether the Court Order or Judgment is final or on appeal.

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Compliance with other laws and certification of eligibility to contract. Any offer to contract with the City shall be considered an executed certification that the Vendor will comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, (as amended during the contracting period) and any orders and decrees of any court, administrative bodies or tribunals in any matter affecting the performance of the Contract, including without limitation, immigration laws, workers' compensation laws, minimum and maximum salary and wage statutes and regulations, and licensing laws and regulations.

Compliance with all Codes, Permitting and Licensing Requirements. The successful Vendor shall comply with all national, state and local laws and regulations as well as those of any other authorities that have jurisdiction pertaining to equipment and materials used and their application. None of the terms or provisions of the specification shall be construed as waiving any rules, regulations or requirements of these authorities. The successful Vendor shall be responsible for obtaining all necessary permits, certificates and/or licenses to fulfill contractual obligations.

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Indemnity and Independent Vendor Status of Vendor. Vendor shall indemnify, save harmless and defend the City, its officers, agents, and employees from and against any and all suits, actions, legal proceedings, claims, demands, damages, costs, expenses, attorney's fees and any and all other costs or fees (whether grounded in Constitutional law, Tort, Contract, or Property Law, or raised pursuant to local, state or federal statutory provision), arising out of the performance of the Contract and/or arising out of a willful or negligent act or omission of the Vendor its officers, agents, and employees. It is understood and agreed that the Vendor and any employee or sub-contractor of Vendor shall not be considered an employee of the City. The Vendor shall not be within protection or coverage of the City's workers' compensation insurance, health insurance, liability insurance or any other insurance that the City from time to time may have in force and effect. City specifically reserves the right to reject any and all Vendor's employees, representatives or sub-contractors and/or their employees for any cause, should the presence of any such person on City property or their interaction with City employees be found not in the best interest of the City or is found to interfere with the effective and efficient operation of the City's workplace.

Liens. Vendor agrees to and shall indemnify and save harmless the City against any and all liens and encumbrances for all labor, goods and services which may be provided under the Contract. At the City's request the Vendor shall provide and shall cause all subcontractors to provide a proper release of all liens, or satisfactory evidence of freedom from liens shall be delivered to the City.

Confidentiality. Any provision in the Contract that attempts to prevent the City's disclosure of information that is subject to public disclosure under federal or Texas law is invalid. (Chapter 552, Texas Government Code).

Tax Exemption. The City is not liable to Vendor for any federal, state, or local taxes for which the City is not liable by law, including state and local sales and use taxes (Section 151.309 and Title 3, Texas Tax Code) and federal excise tax (Subtitle D of the Internal Revenue Code). Accordingly, those taxes may not be added to any item. Texas limited sales tax exemption certificates will be furnished upon request. Vendors shall not charge for said taxes. If billed, the City will remit payment less sales tax.

Contractual Limitations Period. Any provision of the Contract that establishes a limitations period that does not run against the City by law or that is shorter than two years is void. (Sections 16.061 and 16.070, Texas Civil Practice and Remedies Code)

Sovereign Immunity. Any provision of the Contract that seeks to waive the City's immunity from suit and/or immunity from liability is void unless agreed to by specific acknowledgement of the provision within the contract.

Governing Law and Venue. Texas law governs this Contract and any lawsuit on this Contract must be filed in a court that has jurisdiction in Tarrant County, Texas.

Right to trial by Jury. Any provision of the Contract that seeks to waive an aggrieved Party's right to trial by jury is void unless agreed to by specific acknowledgement of the provision within the contract.

Certificate of Interested Parties (TEC Form 1295). For contracts that require City Council approval or that is for services that would require a person to register as a lobbyist under Chapter 305 of the Government Code, the City may not accept or enter into a contract until it has received from the Vendor a completed and signed Texas Ethics Commission (TEC) Form 1295 complete with a certificate number assigned by the (TEC), pursuant to Texas Government Code § 2252.908 and the rules promulgated thereunder by the TEC. The Vendor understands that failure to provide said form complete with a certificate number assigned by the TEC may prohibit the City from entering the Contract.

Pursuant to the rules prescribed by the TEC, the TEC Form 1295 must be completed online through the TEC's website, assigned a certificate number, printed, signed and provided to the City. The TEC Form 1295 may accompany the bid or may be submitted separately but must be provided to the City prior to the award of the contract. Neither the City nor its consultants have the ability to verify the information included in a TEC Form 1295, and neither have an obligation nor undertake responsibility for advising any potential Vendor with respect to the proper completion of the TEC Form 1295.

Anti-Boycott Israel Verification. In accordance with Chapter 2270, Texas Government Code, the City may not enter into a contract with a company, excluding a sole proprietorship, with 10 or more full-time employees for goods or services valued at \$100,000 or more unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract.

The signatory executing the Contract on behalf of Vendor verifies that Vendor and its parent company, wholly-owned subsidiaries, majority-owned subsidiaries and other affiliates, if any, do not boycott Israel and, to the extent the Contract is a contract for goods or services, will not boycott Israel during the term of the Contract. The foregoing verification is made solely to comply with Section 2270.002, Texas Government Code, and to the extent such Section does not contravene applicable Federal law. As used in the foregoing verification, "boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes. The signatory understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the signatory and exists to make a profit. This section does not apply to a Vendor which is a sole proprietorship and/or which has less than 10 full-time employees. This section does not apply to a contract valued at less than \$100,000,

Iran, Sudan, and Foreign Terrorist Organizations. The signatory executing the Contract on behalf of Vendor represents that neither Vendor nor any of its parent company, wholly-owned subsidiaries, majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or

Section 2270.0201, Texas Government Code, and posted on any of the following pages of such officer's internet website:

<https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf>,
<https://comptroller.texas.gov/purchasing/docs/iran-list.pdf>, or
<https://comptroller.texas.gov/purchasing/docs/fto-list.pdf>.

The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, and to the extent such Section does not contravene applicable Federal law and excludes the entity and each of its parent company, wholly-owned subsidiaries, majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. The signatory understands "affiliate" to mean any entity that controls, is controlled by, or is under common control with the signatory and exists to make a profit.

CITY OF WATAUGA, TEXAS

By: _____
Robert Parker, Interim City Manager

Date: _____

Sam Pack's Five Star Ford
Vendor

By: _____

Name: Jorge Guerra

Title: Fleet Manager

Date: 10/15/2021

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

SAM PACK'S FIVE STAR FORD
CARROLLTON, TX United States

Certificate Number:
2021-813491

Date Filed:
10/15/2021

Date Acknowledged:
10-20-2021

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

CITY OF WATAUGA

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

601-19
vehicles

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary

5 Check only if there is NO Interested Party.



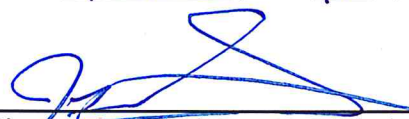
6 UNSWORN DECLARATION

My name is Jorge Guerra, and my date of birth is NA.

My address is 1635 I3SE (street), Carrollton (city), TX (state), 75006 (zip code), Dallas (country).

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Dallas County, State of Texas, on the 15th day of October, 20 21.
(month) (year)



Signature of authorized agent of contracting business entity
(Declarant)



AGENDA MEMORANDUM

DATE: October 15, 2021

TO: Honorable City Council Members

FROM: Paul Hackleman, Director of Public Works

THROUGH: Robert Parker, Interim City Manager

SUBJECT: Consider action to approve the purchase of one Sewer Jetter Trailer from Lonestar Municipal Equipment through the BuyBoard cooperative purchasing program

BACKGROUND/INFORMATION:

The Fiscal Year 2021-22 approved Budget provides funding for one Jetter Trailer for the Public Works Department within the Utility Division.

Texas Local Government Code Chapter 252 requires Council approval of expenditures in excess of \$50,000.

The Fleet and Building Maintenance Division of the Public Works Department obtained a quote for one Jetter Trailer from Lonestar Municipal Equipment utilizing the BuyBoard Contract #601-19 in the amount of \$79,613.39.

The City is a member of the Buyboard cooperative which allows us to utilize contracts offered through the cooperative per Local Government Code Section 271.102 and Texas Government Code 791. The codes were designed to allow government entities the ability to utilize contracts for products and services that meet all State and Local purchasing laws and requirements.

FINANCIAL IMPLICATIONS:

This purchase is funded by the Water/Sewer Funds in Fiscal Year 2021-22

RECOMMENDATION/ACTION DESIRED:

Staff respectfully recommends the City Council approve the purchase of one Jetter Trailer from Lonestar Municipal Equipment

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. Quote - Sewer Jet Trailer Lone Star Municipal Demo - Watauga 20330 Rev 2
2. Lone Star Municipal - PURCHASING RIDER
3. LONE STAR MUNICIPAL EQUIPMENT 1295 FORM



AGENDA MEMORANDUM

REVIEWED BY:

Paul Hackleman, Director of Public Works
Caroline Kelley, City Attorney
Deby Woodard, Assistant Director of Finance
Robert Parker, Interim City Manager
Terri Johnson, Interim City Secretary
Approved as to form for inclusion on Agenda

Approved - 10/19/2021
Approved - 10/19/2021
Approved - 10/20/2021
Approved - 10/20/2021
Final Approval - 10/20/2021

Per BuyBoard Contract #601-19



PREPARED BY

Lonestar Municipal Equipment

PREPARED FOR

City of Watauga

QUOTE

GapVax®

QUOTE ID

20330 Rev 2

DATE

12/17/2020

PRICING FROM

12/16/2020

2020 JETTER TRAILER

QUOTE ID: 20330 Rev 2

OPTION DESCRIPTION		NOTES	QTY
WATER TANK OPTIONS			
	700 GALLON HIGH DENSITY POLYETHYLENE TANK		STANDARD
STD	WATER FILL ASSEMBLY		STANDARD
STD	MAIN TANK WATER SIGHT GUAGE		STANDARD
STD	25' FILL HOSE		STANDARD
BT2	STRAINER FOR HYDRANT FILL		1
WATER PUMP OPTIONS			
DT7004020	G74020 - 40 GPM / 2,000 PSI		STANDARD
STD	WASHDOWN SYSTEM WITH GUN AND 25 FT HOSE		STANDARD
DT1	AIR-OUT SYSTEM		1
DT5	MULTIFLOW VALVE		1
DT7	PULSATION SYSTEM		1
ENGINE OPTIONS			
N1C	GAS ENGINE WITH CLUTCH		STANDARD
STD	KILL SWITCH		STANDARD
STD	15 GALLON FUEL TANK		STANDARD
STD	ELECTRIC THROTTLE		STANDARD
STD	ENGINE SHROUD		STANDARD
STD	BELT GUARD		STANDARD
	UPGRADE TO DIESEL ENGINE	REQUIRES ENGINEERING APPROVAL	1
NT2	ENGINE ENCLOSURE W/ LOCKING DOOR		1
NT3	HYDRAULIC PRESSURE GAUGE		1
NT4	FUEL GAUGE ON PANEL		1
HOSE REEL OPTIONS			
FT1A	600 FT CAPACITY 3/4" 3000 PSI JET HOSE REEL, MAN LEVEL WIND		STANDARD
FT1C	LATERAL HOSE REEL - REMOVABLE - 150' X 1/2" HOSE		1
FT3	HYDRAULIC POWERED REEL SWING		1
HOSE REEL ACCESSORIES			
FT6	MANUAL FOOTAGE COUNTER 3/4"		1
FT10	15' 3/4" LEADER HOSE		1
FT4A2000	600 FT 3/4" JETTER HOSE		1
GT1	LOW WATER WARNING LIGHT		1

	LIGHTING OPTIONS	
HT1	ARROWSTICK W CONTROL BOX & MOUNTING BRACKET LED	1
HT3	STROBE LIGHT QTY 1 W/LIMB GUARD LED	1
HT6	CONTROL PANEL LIGHT	1
HT7	WORK LIGHT TOP OF TANK LED	2
HT11	UPGRADE TRAILER TAIL/MARKER LIGHT TO LED	1
	STORAGE OPTIONS	
IT2	STORAGE BASKETS IN TRAILER FRAME	1
IT3	LOCKABLE TOOLBOX ON TONGUE	1
	TRAILER OPTIONS	
STD	6" FRAME	STANDARD
STD	DOT LIGHT PACKAGE	STANDARD
STD	STEEL FENDERS	STANDARD
STD	POWDER COATED TOUGH	STANDARD
TT3	DUAL 7,000 LB GVWR AXLES REQUIRES G7	STANDARD
	PAINT OPTIONS (CHOOSE ONE)	
KT1	PAINT BLACK	1
	MANUALS	
STD	OPERATOR'S MANUAL	STANDARD
STD	ENGINE MANUAL	STANDARD
	CUSTOM OPTIONS AND ACCESSORIES	
I17B	NOZZLE RACK - SIX (6) NOZZLES, 3/4"	1
	SOLD THROUGH LONESTAR MUNICIPAL EQUIPMENT	1
	3/4" GENERAL NOZZLE - LME SUPPLIED	1
	3/4" ARROW W/DP - LME SUPPLIED	1
	3/4" STANDARD - LME SUPPLIED	1



PRICING SUMMARY

LIST PRICE OF BASE UNIT WITH OPTIONS	\$	79,613.39
TRADE IN		
ESTIMATED DELIVERY:		
ESTIMATED SUBTOTAL:	\$	79,613.39
SALES TAX		
TOTAL	\$	79,613.39

ALL PRICES ARE IN US DOLLARS

DUE TO EXTREME MARKET VOLATILITY AND PENDING U.S. GOVERNMENT SECTION 232 TRADE CASES ALL PRICES AND AVAILABILITY ARE SUBJECT TO CHANGE WITHOUT NOTICE, ALL QUOTES TO BE CONFIRMED AT TIME OF ORDER

*** UNLESS DELIVERY PRICE IS LISTED ABOVE, PRICE IS FOB FACTORY *** TERMS - NET, 15% DOWN ***

SIGNATURE

DATE

Please return a signed copy to mhughes@gapvax.com

QUOTE ID

20330 Rev 2

DATE

12/17/2020

PRICING FROM

12/16/2020

GapVax Incorporated

Terms and Conditions of Sale

1. **ORDERS.** All orders are subject to acceptance by an officer of GapVax Inc. Orders for products not regularly carried in stock or requiring special engineering or manufacture are in every case subject to approval by an officer of GapVax.
2. **PERFORMANCE.** GapVax Inc. shall not be liable for failure to complete the contract in accordance with its terms if failure is due to wars, strikes, fires, floods, accidents, delays in transportation or other causes beyond its reasonable control.
3. **EXPERIMENTAL WORK.** Work performed at customer's request such as sketches, drawings, design, testing, fabrication and materials shall be charged at current rates.
4. **SKETCHES, ENGINEERING DRAWINGS, MODELS** and all preparatory work created or furnished by GapVax Inc. shall remain its exclusive property; and no use of same shall be made, nor may ideas obtained therefrom be used, except with the consent of and on terms acceptable to GapVax Inc.
5. **CANCELLATION.** Orders regularly entered cannot be canceled except upon terms that will compensate GapVax Inc. for any loss or damage sustained.
6. **SHIPMENT.** All proposals are based on continuous and uninterrupted delivery of the order upon completion, unless specifications distinctly state otherwise. In the event that agreement is reached for GapVax Inc. to store completed items, they will be immediately invoiced to the customer and become due and payable. Storage shall be at the risk of the customer and GapVax Inc. shall be liable only for ordinary care of the property.
7. **CUSTOMER'S PROPERTY.** GapVax Inc. shall charge the customer at current rates, for handling and storing customer's property (e.g. truck chassis) held for more than thirty (30) days after notification of availability for shipment. All customer's property, or third party's property, that is stored by GapVax Inc. is at the customer's or other party's risk. GapVax is not liable for any loss or damage thereto caused by fire, water, corrosion, theft, negligence, or any cause beyond its reasonable control.
8. **PRICES.** All orders are subject to current prices in effect at the time of order acknowledgment.
9. **F.O.B. POINT.** Unless otherwise stated, all prices listed are F.O.B. point of manufacture.
10. **TAXES.** Unless specifically stated, prices listed do not include Federal, State, City or other excise occupation, sales, use or similar taxes which are extra and are to be added at rates in effect at time of shipment. If federal Excise Taxes are included or listed on the reverse side of this paper, they are stated at the rates and regulations in effect at the time this order is written, and are subject to revision in accordance with rates and regulations in effect at time of shipment.
11. **PRODUCT IMPROVEMENT.** GapVax Inc. reserves the right to change manufacturing specifications and procedures without incurring any responsibility for modifying previously shipped products.
12. **MOUNTING PRICES.** Mounting prices assumes normal factory installation on a truck chassis suitable for the unit purchased. Relocation of batteries, gas tanks, mufflers, air tanks, etc. will be an additional charge, billed at the standard factory labor rate.
13. **WARRANTY.** GapVax Inc. warrants its products to be free from defects in material and workmanship, subject to the limitations and conditions set forth in its current published warranty but makes no warranty of merchantability or fitness for any particular purpose. GapVax Inc. does not assume liability for any loss of product, time or any direct, indirect, or consequential damage, losses or delay or any nature whatsoever. No warranty, express or implied, is made or authorized to be made and no obligation is assumed or authorized to be assumed with respect to products of GapVax Inc. other than that set forth in the current, published warranty. It is to be understood that the acceptance this order is expressly conditioned upon your acceptance of GapVax Inc. standard written warranty for the products sold hereunder GapVax Inc. hereby disclaims any responsibility or liability for any consequential losses delays or downtime resulting from orders hereunder the use of its products. GapVax does not and will not warranty any tank coating or tank lining.
14. This agreement shall be construed according to the laws of the State of Pennsylvania. Our failure at anytime to exercise any right we may have under the agreement shall not constitute a waiver thereof nor prejudice our right to enforce same thereafter.
15. This order, including the above terms and conditions contains the complete and final agreement between the parties hereto and no other agreement in any way modifying any of said terms and conditions will be binding on us unless in writing and agreed to by authorized representative of this company.

GOVERNMENTAL CONTRACT AND PURCHASING RIDER
FOR CONTRACTS WITH THE CITY OF WATAUGA, TEXAS

By submitting a response to a solicitation or bid, or by entering into a contract for goods or services and/or by accepting a purchase order, the contractor, consultant or vendor, identified below, agrees that the below terms and conditions shall govern all agreements with the City unless otherwise agreed to by a **specifically executed provision** within the contract or purchase order, provided same is permissible by law. Absent a specifically executed provision, the below terms are BINDING and SUPERSEDE any and all other terms and/or conditions whether oral or written.

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Jetter Trailer

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Compliance with all Codes, Permitting and Licensing Requirements. The successful Vendor shall comply with all national, state and local laws and regulations as well as those of any other authorities that have jurisdiction pertaining to equipment and materials used and their application. None of the terms or provisions of the specification shall be construed as waiving any rules, regulations or requirements of these authorities. The successful Vendor shall be responsible for obtaining all necessary permits, certificates and/or licenses to fulfill contractual obligations.

Liability and Indemnity of City. Any provision of the Contract is void and unenforceable if it: (1) limits or releases either party from liability that would exist by law in the absence of the provision; (2) creates liability for either party that would not exist by law in the absence of the provision; or (3) waives or limits either party's rights, defenses, remedies, or immunities that would exist by law in the absence of the provision. (Section 5, Article XI, Texas Constitution)

Indemnity and Independent Vendor Status of Vendor. Vendor shall indemnify, save harmless and defend the City, its officers, agents, and employees from and against any and all suits, actions, legal proceedings, claims, demands, damages, costs, expenses, attorney's fees and any and all other costs or fees (whether grounded in Constitutional law, Tort, Contract, or Property Law, or raised pursuant to local, state or federal statutory provision), arising out of the performance of the Contract and/or arising out of a willful or negligent act or omission of the Vendor its officers, agents, and employees. It is understood and agreed that the Vendor and any employee or sub-contractor of Vendor shall not be considered an employee of the City. The Vendor shall not be within protection or coverage of the City's workers' compensation insurance, health insurance, liability insurance or any other insurance that the City from time to time may have in force and effect. City specifically reserves the right to reject any and all Vendor's employees, representatives or sub-contractors and/or their employees for any cause, should the presence of any such person on City property or their interaction with City employees be found not in the best interest of the City or is found to interfere with the effective and efficient operation of the City's workplace.

Liens. Vendor agrees to and shall indemnify and save harmless the City against any and all liens and encumbrances for all labor, goods and services which may be provided under the Contract. At the City's request the Vendor shall provide and shall cause all subcontractors to provide a proper release of all liens, or satisfactory evidence of freedom from liens shall be delivered to the City.

Confidentiality. Any provision in the Contract that attempts to prevent the City's disclosure of information that is subject to public disclosure under federal or Texas law is invalid. (Chapter 552, Texas Government Code).

Tax Exemption. The City is not liable to Vendor for any federal, state, or local taxes for which the City is not liable by law, including state and local sales and use taxes (Section 151.309 and Title 3, Texas Tax Code) and federal excise tax (Subtitle D of the Internal Revenue Code). Accordingly, those taxes may not be added to any item. Texas limited sales tax exemption certificates will be furnished upon request. Vendors shall not charge for said taxes. If billed, the City will remit payment less sales tax.

Contractual Limitations Period. Any provision of the Contract that establishes a limitations period that does not run against the City by law or that is shorter than two years is void. (Sections 16.061 and 16.070, Texas Civil Practice and Remedies Code)

Sovereign Immunity. Any provision of the Contract that seeks to waive the City's immunity from suit and/or immunity from liability is void unless agreed to by specific acknowledgement of the provision within the contract.

Governing Law and Venue. Texas law governs this Contract and any lawsuit on this Contract must be filed in a court that has jurisdiction in Tarrant County, Texas.

Right to trial by Jury. Any provision of the Contract that seeks to waive an aggrieved Party's right to trial by jury is void unless agreed to by specific acknowledgement of the provision within the contract.

Certificate of Interested Parties (TEC Form 1295). For contracts that require City Council approval or that is for services that would require a person to register as a lobbyist under Chapter 305 of the Government Code, the City may not accept or enter into a contract until it has received from the Vendor a completed and signed Texas Ethics Commission (TEC) Form 1295 complete with a certificate number assigned by the (TEC), pursuant to Texas Government Code § 2252.908 and the rules promulgated thereunder by the TEC. The Vendor understands that failure to provide said form complete with a certificate number assigned by the TEC may prohibit the City from entering the Contract.

Pursuant to the rules prescribed by the TEC, the TEC Form 1295 must be completed online through the TEC's website, assigned a certificate number, printed, signed and provided to the City. The TEC Form 1295 may accompany the bid or may be submitted separately but must be provided to the City prior to the award of the contract. Neither the City nor its consultants have the ability to verify the information included in a TEC Form 1295, and neither have an obligation nor undertake responsibility for advising any potential Vendor with respect to the proper completion of the TEC Form 1295.

Anti-Boycott Israel Verification. In accordance with Chapter 2270, Texas Government Code, the City may not enter into a contract with a company, excluding a sole proprietorship, with 10 or more full-time employees for goods or services valued at \$100,000 or more unless the contract contains a written verification from the company that it: (1) does not boycott Israel; and (2) will not boycott Israel during the term of the contract.

The signatory executing the Contract on behalf of Vendor verifies that Vendor and its parent company, wholly-owned subsidiaries, majority-owned subsidiaries and other affiliates, if any, do not boycott Israel and, to the extent the Contract is a contract for goods or services, will not boycott Israel during the term of the Contract. The foregoing verification is made solely to comply with Section 2270.002, Texas Government Code, and to the extent such Section does not contravene applicable Federal law. As used in the foregoing verification, "boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes. The signatory understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the signatory and exists to make a profit. This section does not apply to a Vendor which is a sole proprietorship and/or which has less than 10 full-time employees. This section does not apply to a contract valued at less than \$100,000,

Iran, Sudan, and Foreign Terrorist Organizations. The signatory executing the Contract on behalf of Vendor represents that neither Vendor nor any of its parent company, wholly-owned subsidiaries, majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or

Section 2270.0201, Texas Government Code, and posted on any of the following pages of such officer's internet website:

<https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf>,
<https://comptroller.texas.gov/purchasing/docs/iran-list.pdf>, or
<https://comptroller.texas.gov/purchasing/docs/fto-list.pdf>.

The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, and to the extent such Section does not contravene applicable Federal law and excludes the entity and each of its parent company, wholly-owned subsidiaries, majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. The signatory understands "affiliate" to mean any entity that controls, is controlled by, or is under common control with the signatory and exists to make a profit.

CITY OF WATAUGA, TEXAS

By: _____
Robert Parker, Interim City Manager

Date: _____

Lonestar Municipal Equipment, LLC
Vendor

By: Paul E. Folker, Jr.

Name: Paul E. Folker, Jr.

Title: President

Date: 10/15/2021

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Lonestar Municipal Equipment, LLC
Weatherford, TX United States

Certificate Number:
2021-813536

Date Filed:
10/15/2021

Date Acknowledged:
10 - 20 - 2021

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Watauga, TX

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

593-19
GapVax G7 Trailer Jetter

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary
	Folker, Paul	Weatherford, TX United States	X	

5 Check only if there is NO Interested Party.

☐

6 UNSWORN DECLARATION

My name is Paul E. Folker, Jr., and my date of birth is 12/28/1968.

My address is 1105 Friendship Road, Weatherford, TX, 76085, USA.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Parker County, State of Texas, on the 15th day of October, 2021.
(month) (year)

Paul E. Folker, Jr.
Signature of authorized agent of contracting business entity
(Declarant)



AGENDA MEMORANDUM

DATE: October 12, 2021

TO: Honorable City Council Members

FROM: Sandra Gibson, Director of Finance

SUBJECT: Presentation by SAMCO Capital Markets, the City's Financial Advisor, regarding a refunding opportunity for interest rate savings on current outstanding debt and authorizing the City's Financial Advisor, Bond Counsel and staff to proceed if certain savings targets are reached and other matters related thereto

BACKGROUND/INFORMATION:

The City has a refunding opportunity for the City's Certificates of Obligation, Series 2012 (100% utility supported). These CO's are callable on February 1, 2022, and based on current interest rates and projections, approximately \$350,000 in savings could be generated over the 10 years remaining on debt service payments.

A presentation by Samco Capital Markets, the City's Financial Advisor, will provide information on this opportunity.

FINANCIAL IMPLICATIONS:

Potential savings of approximately \$350,000

RECOMMENDATION/ACTION DESIRED:

Provide direction to Interim City Manager on whether to proceed with the 2012 Certificates of Obligation refunding opportunity as presented.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

None

REVIEWED BY:

Sandra Gibson, Director of Finance
Caroline Kelley, City Attorney
Robert Parker, Interim City Manager
Terri Johnson, Interim City Secretary

Approved - 10/13/2021
Approved - 10/15/2021
Approved - 10/18/2021
Final Approval - 10/18/2021

Approved as to form for inclusion on Agenda



AGENDA MEMORANDUM

DATE: October 12, 2021

TO: Honorable City Council Members

FROM: Bradley Fraley, Chief Information Officer

THROUGH: Robert Parker, Interim City Manager

SUBJECT: Discuss and consider action on the purchase of network switch replacements through cooperative purchasing via DIR State Contract and National IPA Contract

BACKGROUND/INFORMATION:

In order to maintain the daily operations, productivity and security of the City, it has become necessary to refresh the City's network switching infrastructure. The current network switches are 9+ years in age. Parts availability outside of warranty is extremely limited, particularly in the post-COVID-19 era, which means that a hardware failure could result in significant downtime for a connected location(s). Existing switches are discontinued by the manufacturer and the software/firmware which operates them is obsolete and is no longer receiving updates, thus exposing the City to potential security risks and non-compliance issues with security protocols such as CJIS. The current switching infrastructure lacks redundancy. Bandwidth and power capabilities for the existing switches is also an issue as the City continues to add network attached devices such as cameras, telephones and access points which require additional PoE (Power over Ethernet) budget.

In recognition of these factors, during the 21-22 budgeting process, switch replacements were included in the Capital Outlay Plan which was previously presented to the Council. The replacements being provided for Council consideration include Aruba 6400 CX and Aruba 6300 CX switches with an Aruba 6400 series core switch being proposed for both City Hall and the Police Station. The replacements include additional switches for the Water Tower, Recreation Center, Library, Fire Station and Animal Services Center, as well as fiber connectivity between facilities with an enhanced bandwidth throughput of 25Gb versus the 10Gb currently in place. The proposal includes redundant 10Gb switches for server connections for the City Hall core which enhances the current throughput from 1Gb to 10Gb and also includes a 10Gb module in the Police Department core to connect Police servers at 10Gb versus 1Gb. Interconnecting between stacked switches utilizes a 50Gb connection versus the current 1Gb connection. Each switch includes additional PoE budgets equal to 60W per port for powering devices such as cameras, telephones and access points. The proposed replacements also includes new



AGENDA MEMORANDUM

backup Power Supplies to maintain operability due to loss of power in either core location (City Hall/Police).

The proposed replacements also include an overhaul of our existing private/public Wi-Fi, which offers compatibility with Wi-Fi 6 standards and 1.49Gbps real-world speed, which is a benefit to both staff and the public. The solution includes two external APs for Police. All Aruba devices include 5Yr NBDE warranty coverage and the necessary software and licenses for cloud management. The solution offers expandability and provides for future proofing of the City's network infrastructure for the next 10 years.

Aruba has indicated that there will be a 10-15% markup on all items proposed if purchased after November 1. I.T. therefore recommends approval at this time to minimize costs.

FINANCIAL IMPLICATIONS:

All items within budget and are part of the Fiscal 21-22 Capital Outlay Plan presented to the Council.

RECOMMENDATION/ACTION DESIRED:

Approval of the purchase of network switch replacements from CDW Government in the amount of \$178,398.20 from DIR State Contract DIR-TSO-4160 and National IPA Contract 2018011-01.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. HPE Aruba Quote
2. Aruba 6400 Datasheet
3. Aruba 6300 Datasheet
4. Aruba AP500 Datasheet
5. HPE Foundation Care Exchange

REVIEWED BY:

Deby Woodard, Assistant Director of Finance
Sandra Gibson, Director of Finance
Caroline Kelley, City Attorney
Robert Parker, Interim City Manager
Terri Johnson, Interim City Secretary
Approved as to form for inclusion on Agenda

Approved - 10/20/2021
Approved - 10/20/2021
Approved - 10/20/2021
Approved - 10/20/2021
Final Approval - 10/20/2021

QUOTE CONFIRMATION



DEAR BRAD FRALEY,

Thank you for considering CDW•G LLC for your computing needs. The details of your quote are below.
[Click here](#) to convert your quote to an order.

QUOTE #	QUOTE DATE	QUOTE REFERENCE	CUSTOMER #	GRAND TOTAL
MKTX070	10/14/2021	ARUBA REFRESH - UPDATED	6100289	\$178,398.20

QUOTE DETAILS				
ITEM	QTY	CDW#	UNIT PRICE	EXT. PRICE
HPE Foundation Care Next Business Day Exchange Service - extended service a Mfg. Part#: HL5S3E Electronic distribution - NO MEDIA Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)	2	6344315	\$707.50	\$1,415.00
HPE Foundation Care Next Business Day Exchange Service - extended service a Mfg. Part#: HL6T1E Contract: National IPA Technology Solutions (2018011-01)	4	6590114	\$502.50	\$2,010.00
HPE Foundation Care Next Business Day Exchange Service - extended service a Mfg. Part#: HP9W8E Electronic distribution - NO MEDIA Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)	24	5927294	\$18.50	\$444.00
HPE Foundation Care Next Business Day Exchange Service - extended service a Mfg. Part#: HR5B6E Electronic distribution - NO MEDIA Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)	5	5975314	\$595.00	\$2,975.00
HPE Foundation Care Next Business Day Exchange Service - extended service a Mfg. Part#: HR7H8E Electronic distribution - NO MEDIA Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)	2	6274636	\$1,665.00	\$3,330.00
HPE Foundation Care Next Business Day Exchange Service - extended service a Mfg. Part#: HU4T6E Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)	2	6415582	\$39.10	\$78.20
HPE Foundation Care Next Business Day Exchange Service - extended service a Mfg. Part#: HY2S2E Electronic distribution - NO MEDIA Contract: National IPA Technology Solutions (2018011-01)	1	6683503	\$120.00	\$120.00
HPE Aruba Cat5e - SFP (mini-GBIC) transceiver module - GigE Mfg. Part#: J8177D UNSPSC: 43201553 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)	4	4905550	\$105.00	\$420.00

QUOTE DETAILS (CONT.)				
<u>HPE Aruba X414 Universal 4-post - rack mounting kit - 1U</u>	2	6259967	\$77.75	\$155.50
Mfg. Part#: J9583B Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba X371 - power supply - hot-plug / redundant - 250 Watt</u>	4	4360869	\$200.00	\$800.00
Mfg. Part#: JL085A#ABA UNSPSC: 39121004 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba X372 - Power Supply - Hot-Plug / Redundant - 680 W</u>	18	4360870	\$275.00	\$4,950.00
Mfg. Part#: JL086A#ABA UNSPSC: 39121004 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba - SFP28 transceiver module - 25 Gigabit LAN</u>	4	5760390	\$375.00	\$1,500.00
Mfg. Part#: JL484A UNSPSC: 43201553 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba - SFP28 transceiver module - 25 Gigabit LAN</u>	10	5487459	\$1,635.00	\$16,350.00
Mfg. Part#: JL486A UNSPSC: 43201553 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba Direct Attach Cable - 25GBase direct attach cable - 2 ft</u>	4	5854315	\$86.50	\$346.00
Mfg. Part#: JL487A Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba Cat6A - SFP+ transceiver module - 10 Gige</u>	8	5183552	\$575.00	\$4,600.00
Mfg. Part#: JL563A UNSPSC: 43201553 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba 6300M - switch - 24 ports - managed - rack-mountable</u>	2	6312427	\$6,250.00	\$12,500.00
Mfg. Part#: JL658A Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba 6300M 48-Port 1GbE Class 4 PoE and 4-Port SFP56 Switch</u>	5	5817451	\$4,250.00	\$21,250.00
Mfg. Part#: JL661A UNSPSC: 43222612 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba 6300M 24-Port 1GbE Class 4 PoE and 4-Port SFP56 Switch</u>	4	5817452	\$2,600.00	\$10,400.00
Mfg. Part#: JL662A UNSPSC: 43222612 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba network device fan tray</u>	6	5817461	\$181.50	\$1,089.00
Mfg. Part#: JL669A Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
<u>HPE Aruba 6100 12G Class4 PoE 2G/2SFP+ 139W Switch - switch - 16 ports - ma</u>	1	6404572	\$581.00	\$581.00
Mfg. Part#: JL679A#ABA Contract: National IPA Technology Solutions (2018011-01)				
<u>Aruba Outdoor Pole/Wall Long Mount Kit - Network Device</u>	2	4360932	\$58.25	\$116.50
Mfg. Part#: JW052A				

QUOTE DETAILS (CONT.)				
UNSPSC: 31162313 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba AP-MNT-MP10-B Campus Type B - Mounting Bracket	2	5364140	\$74.50	\$149.00
Mfg. Part#: Q9G69A UNSPSC: 31162313 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba AP-MNT-MP10-D Campus Mounting Bracket	2	5364142	\$94.50	\$189.00
Mfg. Part#: Q9G71A UNSPSC: 31162313 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba Central Foundation - subscription license (5 years) - 1 access po	26	6532001	\$185.00	\$4,810.00
Mfg. Part#: Q9Y60AAE Electronic distribution - NO MEDIA Contract: National IPA Technology Solutions (2018011-01)				
HPE Aruba Central Foundation - subscription license (5 years) - 1 switch (1	1	6605406	\$307.50	\$307.50
Mfg. Part#: Q9Y70AAE Electronic distribution - NO MEDIA Contract: National IPA Technology Solutions (2018011-01)				
HPE Aruba Central Foundation - subscription license (5 years) - 1 switch (4	11	6519748	\$850.00	\$9,350.00
Mfg. Part#: Q9Y80AAE Electronic distribution - NO MEDIA Contract: National IPA Technology Solutions (2018011-01)				
HPE Aruba 50GBase direct attach cable - 2 ft	2	5861759	\$125.00	\$250.00
Mfg. Part#: R0M46A Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba 6405 5-Port Ethernet Switch	2	5812095	\$4,925.00	\$9,850.00
Mfg. Part#: R0X26A Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba 6400 Management Module - network management device	2	5841921	\$3,300.00	\$6,600.00
Mfg. Part#: R0X31A Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba - with C16 Inlet Adapter - power supply - hot-plug - 1800 Watt	8	6008745	\$910.00	\$7,280.00
Mfg. Part#: R0X35A#B2E Contract: National IPA Technology Solutions (2018011-01)				
HPE Aruba 4-post Rack Mount Kit - rack mounting kit	2	5841923	\$362.50	\$725.00
Mfg. Part#: R0X37A Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba 6400 - expansion module - Gigabit Ethernet (PoE) x 48 + Gigabit E	5	6006935	\$3,650.00	\$18,250.00
Mfg. Part#: R0X39B Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba 6400 - expansion module - Gigabit Ethernet (PoE) x 48 + Gigabit E	1	6048891	\$4,000.00	\$4,000.00
Mfg. Part#: R0X40B Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba 6400 - expansion module	2	5841932	\$4,750.00	\$9,500.00

QUOTE DETAILS (CONT.)				
Mfg. Part#: R0X42A Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba AP-505 (US) - Campus - Wireless Access Point	24	5795028	\$265.00	\$6,360.00
Mfg. Part#: R2H29A Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba AP-MNT-B Campus AP Type B Mount Bracket Kit	2	5617107	\$12.00	\$24.00
Mfg. Part#: R3J16A UNSPSC: 31162313 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba AP-MNT-D Campus Access Point Type D Mount Bracket Kit	2	5617110	\$12.75	\$25.50
Mfg. Part#: R3J18A UNSPSC: 31162313 Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba AP-565 (US) - wireless access point	2	6272530	\$495.00	\$990.00
Mfg. Part#: R4W44A Contract: Texas HPE DIR TSO 4160 (DIR-TSO-4160)				
HPE Aruba Central On-Premises Foundation - subscription license-to-use (5 y	2	6652492	\$1,700.00	\$3,400.00
Mfg. Part#: R8L82AAE Electronic distribution - NO MEDIA Contract: National IPA Technology Solutions (2018011-01)				
APC Smart-UPS SRT 5000VA Sinewave 3U Rackmount 208V	2	3565776	\$4,550.00	\$9,100.00
Mfg. Part#: SRT5KRMXLT UNSPSC: 26111701 Contract: National IPA Technology Solutions (2018011-01)				
APC Extended Warranty Service Pack - technical support - 3 years	2	1381234	\$535.00	\$1,070.00
Mfg. Part#: WBEXTWAR3YR-SP-05 UNSPSC: 81112307 Contract: National IPA Technology Solutions (2018011-01)				
APC 230 V 10 Outlet 12' Cord Power Distribution Unit	2	1895454	\$242.50	\$485.00
Mfg. Part#: AP9571A UNSPSC: 39121017 Contract: National IPA Technology Solutions (2018011-01)				
Tripp Lite Heavy Duty Computer Power Extension Cord 15A 14AWG C14 to C15 6'	8	2591585	\$16.00	\$128.00
Mfg. Part#: P018-006 UNSPSC: 26121636 Contract: National IPA Technology Solutions (2018011-01)				
APC NetShelter Open Frame 2 Post Rack 45U Threaded Holes Black	1	241691	\$125.00	\$125.00
Mfg. Part#: AR201 UNSPSC: 24102001 Contract: National IPA Technology Solutions (2018011-01)				

PURCHASER BILLING INFO	SUBTOTAL	\$178,398.20
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Billing Address: CITY OF WATAUGA ACCOUNTS PAYABLE 7105 WHITLEY RD WATAUGA, TX 76148-2024 Phone: (817) 514-5800 Payment Terms: Net 30 Days-Govt State/Local	SHIPPING	\$0.00
	SALES TAX	\$0.00
	GRAND TOTAL	\$178,398.20
DELIVER TO	Please remit payments to: CDW Government 75 Remittance Drive Suite 1515 Chicago, IL 60675-1515	
Shipping Address: CITY OF WATAUGA BRAD FRALEY 7105 WHITLEY RD WATAUGA, TX 76148-2024 Phone: (817) 514-5800 Shipping Method: Expeditors Deferred 3-5 Days		

Need Assistance? CDW•G LLC SALES CONTACT INFORMATION			
	Alex Pas	(877) 837-2705	alexpas@cdwg.com

This quote is subject to CDW's Terms and Conditions of Sales and Service Projects at <http://www.cdwg.com/content/terms-conditions/product-sales.aspx>
For more information, contact a CDW account manager

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DATA SHEET

ARUBA CX 6400 SWITCH SERIES

PRODUCT OVERVIEW

The Aruba CX 6400 Switch Series is a modern, flexible and intelligent family of modular switches ideal for access, aggregation and core in enterprise campus and data center deployments. Created for game-changing operational efficiency with built-in security and resiliency, the 6400 switches provide the foundation for high-performance networks supporting IoT, mobile and cloud applications.

Built from the ground up with a combination of cutting-edge hardware, software and analytics and automation tools, the 6400 switches are part of the Aruba CX switching portfolio, designed for today's enterprise campus, branch and data center networks. By combining a modern, fully programmable OS with the Aruba Network Analytics Engine, the 6400 switches provide industry leading monitoring and troubleshooting capabilities across the network.

A powerful Aruba Gen7 ASIC architecture delivers performance and robust feature support with flexible programmability for tomorrow's applications. The Aruba Virtual Switching Extension (VSX) allows for high availability, and also enables non-disruptive fast upgrades and simplified management. This flexible series offers powerful connectivity options in a 5 or 10 slot compact chassis with non-blocking 2.8Tb fabric per slot and high density IEEE 802.3bt high power PoE. HPE Smart Rate multi-gigabit Ethernet paves the way for high speed access points and IoT devices by delivering fast connectivity and high power PoE using existing cabling. Line rate interfaces include 1GbE, 10GbE, 25GbE, 40GbE, and 100GbE ports¹ (50GbE transceiver capability will be enabled in future software release).

Aruba Dynamic Segmentation extends Aruba's foundational wireless role-based policy capability to Aruba wired switches. What this means is that the same security, user experience and simplified IT management can be enjoyed throughout the network. Regardless of how users and IoT devices connect, consistent policies are enforced across wired and wireless networks, keeping traffic secure and separate.

¹ 50GbE transceiver capability enabled in future software release



KEY BENEFITS

- Powerful modular Layer 3 switches with BGP, EVPN, VXLAN, VRF, and OSPF with robust security and QoS
- High performance switching with up to 28 Tbps with 11.4 Bpps
- High availability with industry-leading VSX redundancy and redundant power supplies and fans
- Full density HPE Smart Rate (1/2.5/5GbE) multi-gigabit, 60W PoE and SFP+ modules
- High speed, non-blocking 1GbE, 10GbE, 25GbE, 40GbE, and 100GbE ports¹ (50GbE transceiver capability will be enabled in future software release)
- Intelligent monitoring, visibility, and remediation with Aruba Network Analytics Engine
- Manage via single pane of glass with Aruba Central across wired, wireless, and WAN
- Aruba NetEdit support for automated configuration and verification
- Aruba Dynamic Segmentation enables secure and simple access for users and IoT devices

PRODUCT DIFFERENTIATORS

AOS-CX - a modern operating system

The Aruba CX 6400 Switch Series is based on AOS-CX, a modern, database-driven operating system that automates and simplifies many critical and complex network tasks. A built-in time series database enables customers and developers to utilize software scripts for historical



troubleshooting, as well as analysis of past trends. This helps predict and avoid future problems due to scale, security, and performance bottlenecks. Our AOS-CX software also includes Aruba Network Analytics Engine (NAE) and support for Aruba NetEdit. Because AOS-CX is built on a modular Linux architecture with a stateful database, our operating system provides the following unique capabilities:

- Easy access to all network state information allows unique visibility and analytics
- REST APIs and Python scripting for fine-grained programmability of network tasks
- A micro-services architecture that enables full integration with other workflow systems and services
- Continual state synchronization that provides superior fault tolerance and high availability
- Continuous telemetry data with WebSocket subscriptions for event driven automation
- All software processes communicate with the database rather than each other, ensuring near real-time state and resiliency and allowing individual software modules to be independently upgraded for higher availability

Aruba Central - unified single pane of glass management

Flexible cloud-based or on-premises management for unified network operations of wired, WLAN, SD-WAN, and public cloud infrastructure. Designed to simplify day zero through day two operations with streamlined workflows. Switch management capabilities include configuration, onboarding, monitoring, troubleshooting, and reporting.

Aruba Network Analytics Engine - advanced monitoring and diagnostics

For enhanced visibility and troubleshooting, Aruba's Network Analytics Engine (NAE) automatically monitors and analyzes events that can impact network health. Advanced telemetry and automation provide the ability to easily identify and troubleshoot network, system, application and security related issues easily, through the use of python agents and REST APIs.

The Time Series Database (TSDB) stores configuration and operational state data, making it available to quickly resolve network issues. The data may also be used to analyze trends, identify anomalies and predict future capacity requirements.

Aruba NetEdit – automated switch configuration and management

The entire Aruba CX portfolio empowers IT teams to orchestrate multiple switch configuration changes for

smooth end-to-end service rollouts. Aruba NetEdit introduces automation that allows for rapid network-wide changes, and ensures policy conformance post network updates. Intelligent capabilities include search, edit, validation (including conformance checking), deployment and audit features. Capabilities include:

- Centralized configuration with validation for consistency and compliance
- Time savings via simultaneous viewing and editing of multiple configurations
- Customized validation tests for corporate compliance and network change analysis
- Automated large-scale configuration deployment without programming
- Network health and topology visibility via Aruba NAE integration

Note: A separate software license is required to use Aruba NetEdit.

Aruba CX Mobile App – true deployment convenience

An easy to use mobile app simplifies connecting and managing Aruba CX 6400 switches for any size project. Switch information can also be imported into Aruba NetEdit for simplified configuration management and to continuously validate the conformance of configurations anywhere in the network. The Aruba CX Mobile App is available for [download](#).

Aruba ASICs - programmable innovation

Based on over 30 years of continuous investment, Aruba's ASICs create the basis for innovative and agile software feature advancements, unparalleled performance and deep visibility. These programmable ASICs are purpose-built to allow for a tighter integration of switch hardware and software within campus and data center architectures to optimize performance and capacity. Virtual Output Queuing (VOQ) isolates congestion, prevents Head of Line Blocking (HOLB) and allows full line rate on outgoing (egress) ports. Flexible ASIC resources enable Aruba's NAE solution to inspect all data, which allows for industry-leading analytics capabilities. The Aruba CX 6400 is based on the Aruba Gen7 ASIC architecture.

Aruba Dynamic Segmentation - campus and branch fabric

The Aruba Dynamic Segmentation solution enables seamless mobility, consistent policy enforcement, and automated configurations for wired and wireless clients across networks of all sizes. And it extends these benefits to applications hosted on the data center and the public cloud.



This innovation begins with colorless ports and role-based micro-segmentation technologies. Colorless ports allows wired clients to connect to any switch port, with the configuration automated using Radius-Based Access Control. This eliminates the need for manual on-boarding of clients, including IoT devices, onto the network.

Role-based micro-segmentation delivers benefits of reduced subnet and VLAN sprawl, simplified policy definition, and scales policy enforcement by introducing the concept of client User Roles. These roles are independent of network constructs such as VLANs and VRFs, and allows clients to be grouped into a User Role based on their identity. This allows the colorless ports technology to be extended to the overlay fabric, as clients are on-boarded with automatic tunnel creation based on the associated User Role policy. The User Role policy also offers the choice between micro-segmentation with a Layer 4 Role-Rule ACL on switches or a Layer 7 stateful firewall enforcement.

Dynamic Segmentation provides much needed scale and flexibility in network design by allowing the stretching of VLANs and subnets across the entire network. Fabric overlays offer VXLAN or VXLAN-GBP tunnels on the data plane and provide the option of a Multi-Protocol BGP eVPN control plane for large deployments, or a static Layer 2 control plane for simplified deployments.

Dynamic Segmentation also eliminates the complexity of service-chaining and redirection of traffic to 3rd party firewalls. User Role Policy can steer client's traffic on overlay tunnels (User Based Tunnels) to Aruba's Policy Enforcement Firewall for deep-packet inspection and application aware Layer 7 stateful firewall filtering. After performing this stateful inspection for any security threats, the traffic is automatically put back on the VXLAN fabric to be delivered to its destination.

Mobility and IoT performance

The Aruba CX 6400 Switch Series uses a fully distributed architecture that utilizes the Aruba Gen7 ASICs. This ensures that our switches offer very low latency, increased packet buffering, and adaptive power consumption. All switching and routing are wire-speed to meet the demands of bandwidth-intensive applications today and in the future. Each switch includes the following:

- Up to 28 Tbps in non-blocking bandwidth and up to 11.4 Bpps for forwarding available on the fabric

- 100GbE uplinks and large TCAM sizes to cater to mobility and IoT deployments in large campuses with several thousand clients
- Selectable queue configurations that allow for increased performance by defining a number of queues and associated memory buffering to best meet the requirements of network applications
- Increased power efficiency and savings via 80 PLUS Platinum Certified power supplies

Aruba Virtual Switching Extension (VSX)

The ability of AOS-CX to maintain synchronous state across dual control planes allows a simplified carrier-class high availability solution called Aruba Virtual Switching Extension (VSX). Designed using the best features of existing high availability technologies such as Multi-chassis Link Aggregation (MC LAG), Aruba VSX enables a distributed architecture that is highly available during upgrades or control plane events. Features include:

- Continuous configuration synchronization via AOS-CX
- Flexible active-active network designs at Layers 2 and 3
- Operational simplicity and usability for easy configuration
- High availability by design during upgrades including support for VSX Live Upgrade with LACP traffic draining

An Aruba CX 6400 switch for any enterprise environment

Whether in small to large enterprise environments, you can choose from two models ideal for access, aggregation and core deployments. Features of the 5 and 10 slot models include:

- Compact 5 slot (7 RU) and 10 slot (12 RU) support a choice of line cards and redundant, half-width management modules
- High density connectivity ideal for aggregation provides up to 480 ports of HPE Smart Rate multi-gigabit (1/2.5/5GbE) with IEEE 802.3bt High Power PoE (60W)
- Up to 240 ports of 10GBASE-T ideal for high performance desktop and server connections
- Convenient combination modules with four high speed uplinks (10GbE/25GbE)¹
- High speed, non-blocking modules with 1GbE, 10GbE, 25GbE, 40GbE, and 100GbE ports¹ (50GbE transceiver capability will be enabled in future software release)
- Industry standard IEEE 802.3bt High Power PoE support (class 6) provides up to 60W per port for support of the latest IoT devices and APs. PoE support for IEEE 802.3at Power over Ethernet (PoE+) provides up to 30W per port as well as any IEEE 802.3af-compliant end device

¹ 50GbE transceiver capability enabled in future software release



- High availability with Always-On PoE, that continues to keep supplying PoE power even during scheduled reboots and firmware upgrades
- Quick PoE supplies PoE power to powered devices as soon as the switch is plugged into AC power so device can initialize at same time as switch OS boots up
- Support for pre-standard PoE detection provides power to legacy PoE devices
- Support for Energy Efficient Ethernet IEEE 802.3az reduces power consumption during periods of low network traffic
- Auto-MDIX provides automatic adjustments for straight-through or crossover cables on all 10/100/1000 ports, Smart Rate and 10GBASE-T ports
- Unsupported Transceiver Mode (UTM) allows to insert and enable all unsupported 1G and 10G transceivers and cables. Note that there is no warranty nor support for the transceiver/cable when this feature is used
- IPv6 capabilities include:
 - IPv6 host enables switches to be managed in an IPv6 network
 - Dual stack (IPv4 and IPv6) transitions from IPv4 to IPv6, supporting connectivity for both protocols
 - MLD snooping forwards IPv6 multicast traffic to the appropriate interface
 - IPv6 ACL/QoS supports ACL and QoS for IPv6 network traffic
 - IPv6 routing supports Static and OSPFv3 protocols
 - Security provides RA guard, DHCPv6 protection, dynamic IPv6 lockdown, and ND snooping
- Jumbo frames allow for high-performance backups and disaster-recovery systems; provides a maximum frame size of 9198 bytes
- Packet storm protection against broadcast and multicast storms with user-defined thresholds
- Smart link enables simple, fast converging link redundancy and load balancing with dual uplinks avoiding Spanning Tree complexities

High availability and resiliency

To ensure a high degree of up-time we offer high availability and multicast features needed for a full Layer 3 deployment at access and aggregation such as PBR, MSDP, BSR, and IP SLA without the need for software licenses. This includes:

- AOS-CX software resiliency with VSX
- Hot Swappable Power Supplies

- Provide N+1 and N+N redundancy for high reliability in case of power line or supply failure
- Increases total performance and power availability while providing hitless, stateful failover
- Virtual Router Redundancy Protocol (VRRP) allows groups of two routers to dynamically create highly available routed environments in IPV4 and IPV6 networks
- Uni-directional Link Detection (UDLD) to monitor link connectivity and shut down ports at both ends if uni-directional traffic is detected, preventing loops in STP-based networks
- IEEE 802.3ad LACP supports up to 256 LAGs, each with up to 8 links per LAG; and provides support for static or dynamic groups and a user-selectable hashing algorithm
- IEEE 802.1s Multiple Spanning Tree provides high link availability in VLAN environments where multiple spanning trees are required and legacy support for IEEE 802.1d and IEEE 802.1w
- IEEE 802.3ad link-aggregation-control protocol (LACP) and port trunking supports static and dynamic trunks where each trunk supports up to eight links (ports) per static trunk
- Support for Microsoft Network Load Balancer (NLB) for server applications
- Ethernet Ring Protection Switching (ERPS) supports rapid protection and recovery in a ring topology

Quality of Service (QoS) features

To support congestion actions and traffic prioritization, the Aruba CX 6400 Series includes the following:

- Strict priority (SP) queuing and Deficit Weighted Round Robin (DWRR)
- Traffic prioritization (IEEE 802.1p) for real-time classification
- Class of Service (CoS) sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
- Rate limiting sets per-port ingress enforced maximums and per-port, per-queue minimums
- Transmission rates of egressing frames can be limited on a per-queue basis using Egress Queue Shaping (EQS)
- Large buffers for graceful congestion management



Simplified configuration and management

In addition to Aruba Central, the Aruba CX Mobile App, Aruba NetEdit and Aruba Network Analytics Engine, the 6400 series offers the following:

- Built-in programmable and easy to use REST API interface
- Simple day zero provisioning
- Scalable ASIC-based wire speed network monitoring and accounting with no impact on network performance; network operators can gather a variety of network statistics and information for capacity planning and real-time network monitoring purposes
- Management interface control enables or disables each of the following depending on security preferences, console port, or reset button
- Industry-standard CLI with a hierarchical structure for reduced training time and expense. Delivers increased productivity in multivendor environments
- Management security restricts access to critical configuration commands, provides multiple privilege levels with password protection, and local and remote
- SNMP v2c/v3 provides SNMP read and trap support of industry standard Management Information Base (MIB), and private extensions sFlow (RFC 3176)
- Remote monitoring (RMON) with standard SNMP to monitor essential network functions. Supports events, alarms, history, and statistics groups as well as a private alarm extension group; RMON, and sFlow provide advanced monitoring and reporting capabilities for statistics, history, alarms and events
- TFTP and SFTP support offers different mechanisms for configuration updates; trivial FTP (TFTP) allows bidirectional transfers over a TCP/ IP network; Secure File Transfer Protocol (SFTP) runs over an SSH tunnel to provide additional security
- Debug and sampler utility supports ping and traceroute for IPv4 and IPv6
- Network Time Protocol (NTP) synchronizes timekeeping among distributed time servers and clients; keeps timekeeping consistent among all clock-dependent devices within the network so the devices can provide diverse applications based on the consistent time
- IEEE 802.1AB Link Layer Discovery Protocol (LLDP) advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications

- Dual flash images provides independent primary and secondary operating system files for backup while upgrading
- Assignment of descriptive names to ports for easy identification
- Multiple configuration files can be stored to a flash image
- Ingress and egress port monitoring enable more efficient network problem solving
- Unidirectional link detection (UDLD) monitors the link between two switches and blocks the ports on both ends of the link if the link goes down at any point between the two devices
- IP SLA for Voice monitors quality of voice traffic using the UDP Jitter and UDP Jitter for VoIP tests

Layer 2 Switching

The following layer 2 services are supported:

- VLAN support and tagging for IEEE 802.1Q (4094 VLAN IDs)
- Jumbo packet support improves the performance of large data transfers; supports frame size of up to 9198 bytes
- IEEE 802.1v protocol VLANs isolate select non-IPv4 protocols automatically into their own VLANs
- Rapid Per-VLAN Spanning Tree (RPVST+) allows each VLAN to build a separate spanning tree to improve link bandwidth usage; is compatible with PVST+
- MVRP allows automatic learning and dynamic assignment of VLANs
- VXLAN encapsulation (tunnelling) protocol for overlay network that enables a more scalable virtual network deployment
- Bridge Protocol Data Unit (BPDU) tunnelling Transmits STP BPDUs transparently, allowing correct tree calculations across service providers, WANs, or MANs
- Port mirroring duplicates port traffic (ingress and egress) to a monitoring port; supports 4 mirroring groups
- STP supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- Internet Group Management Protocol (IGMP) Controls and manages the flooding of multicast packets in a Layer 2 network
- IPv4 Multicast in VXLAN/EVPN Overlay support allows PIM-SM/IGMP snooping in the VXLAN Overlay



- IPv6 VXLAN/EVPN Overlay support, allows IPv6 traffic over the VXLAN overlay
- VXLAN ARP/ND suppression allows minimization of ARP and ND traffic flooding within individual VXLAN segments, thus optimizing the VXLAN network

Layer 3 Services

The following layer 3 services are supported:

- User Datagram Protocol (UDP) helper function allows UDP broadcasts to be directed across router interfaces to specific IP unicast or subnet broadcast addresses and prevents server spoofing for UDP services such as DHCP
- Loopback interface address defines an address in Open Shortest Path First (OSPF), improving diagnostic capability
- Route maps provide more control during route redistribution; allow filtering and altering of route metrics
- Address Resolution Protocol (ARP) determines the MAC address of another IP host in the same subnet; supports static ARPs; gratuitous ARP allows detection of duplicate IP addresses; proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 network
- Dynamic Host Configuration Protocol (DHCP) simplifies the management of large IP networks and supports client; DHCP Relay enables DHCP operation across subnets
- DHCP server centralizes and reduces the cost of IPv4 address management
- Domain Name System (DNS) provides a distributed database that translates domain names and IP addresses, which simplifies network design; supports client and server
- Generic Routing Encapsulation (GRE) enables tunneling traffic from site to site over a Layer 3 path
- Syslog capabilities allow logging of all access
- Supports internal loopback testing for maintenance purposes and increased availability; loopback detection protects against incorrect cabling or network configurations and can be enabled on a per-port or per-VLAN basis for added flexibility
- mDNS (Multicast Domain Name System) Gateway enables discovery of mDNS groups across L3 boundaries
- IP sub-interface is a virtual interface created by dividing physical interface into multiple logical interfaces tagged using different VLAN-IDs. A physical interface can be a regular physical, Split port or LAG L3 interface. A sub-interface is used for many uses-cases such as VRF-lite interconnection and inter-vlan routing (router on-a-stick)

Layer 3 Routing

The following layer 3 routing services are supported:

- Border Gateway Protocol (BGP) provides IPv4 and IPv6 routing, which is scalable, robust, and flexible
- Border Gateway Protocol 4 (BGP-4) delivers an implementation of the Exterior Gateway Protocol (EGP) utilizing path vectors; uses TCP for enhanced reliability for the route discovery process; reduces bandwidth consumption by advertising only incremental updates; supports extensive policies for increased flexibility; scales to very large networks with graceful restart capability
- Equal-Cost Multipath (ECMP) enables multiple equal-cost links in a routing environment to increase link redundancy and scale bandwidth
- Multi-protocol BGP (MP-BGP) enables sharing of IPv6 routes using BGP and connections to BGP peers using IPv6
- Routing Information Protocol version 2 (RIPv2) provides an easy to configure routing protocol for small networks as while RIPv1 provides support for small IPv4 networks
- Open shortest path first (OSPF) delivers faster convergence; uses link-state routing Interior Gateway Protocol (IGP), which supports ECMP, NSSA, and MD5 authentication for increased security and graceful restart for faster failure recovery
- OSPF provides OSPFv2 for IPv4 routing and OSPFv3 for IPv6 routing
- Static IP routing provides manually configured routing; includes ECMP capability
- Policy-based routing uses a classifier to select traffic that can be forwarded based on policy set by the network administrator
- Static IPv4 and IPv6 routing provides simple manually configured IPv4 and IPv6 routes
- IP performance optimization provides a set of tools to improve the performance of IPv4 networks; includes directed broadcasts, customization of TCP parameters, support of ICMP error packets, and extensive display capabilities
- Dual IP stack maintains separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design



Security

The Aruba CX 6400 Switch Series come with an integrated trusted platform module (TPM) for platform integrity. This ensures the boot process started from a trusted combination of Aruba AOS-CX switches. Other security features include:

- TAA Compliance uses FIPS 140-2 validated cryptography for protection of sensitive information
- Access control list (ACL) support for both IPv4 and IPv6; allows for filtering traffic to prevent unauthorized users from accessing the network, or for controlling network traffic to save resources; rules can either deny or permit traffic to be forwarded; rules can be based on a Layer 2 header or a Layer 3 protocol header
- ACLs also provide filtering based on the IP field, source/destination IP address/subnet, and source/destination TCP/UDP port number on a per-VLAN or per-port basis
- Remote Authentication Dial-In User Service (RADIUS)
- Terminal Access Controller Access-Control System (TACACS+) delivers an authentication tool using TCP with encryption of the full authentication request, providing additional security
- Enrollment over Secure Transport (EST) enables secure certificate enrollment, allowing for easier enterprise management of PKI
- Management access security for both on- and off-box authentication for administrative access. RADIUS or TACACS+ can be used to provide encrypted user authentication. Additionally, TACACS+ can also provide admin authorization services
- Control Plane Policing sets rate limit on control protocols to protect CPU overload from DOS attacks
- Supports multiple user authentication methods. Uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards
- Web based authentication using Captive Portal on ClearPass is supported for use cases such as Guest Access and for devices that don't support 802.1x or MAC Auth.
- Supports MAC-based client authentication
- Concurrent IEEE 802.1X, Web, and MAC authentication schemes per switch port accepts up to 32 sessions of IEEE 802.1X, Web, and MAC authentications
- DHCP protection blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks
- Secure management access delivers secure encryption of all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
- Switch CPU protection provides automatic protection against malicious network traffic trying to shut down the switch
- ICMP throttling defeats ICMP denial-of-service attacks by enabling any switch port to automatically throttle ICMP traffic
- Identity-driven ACL enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
- STP BPDU port protection blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- Dynamic IP lockdown works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing
- Dynamic ARP protection blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- STP root guard protects the root bridge from malicious attacks or configuration mistakes
- Port security allows access only to specified MAC addresses, which can be learned or specified by the administrator
- MAC address lockout prevents particular configured MAC addresses from connecting to the network
- Source-port filtering allows only specified ports to communicate with each other
- Secure shell encrypts all transmitted data for secure remote CLI access over IP networks
- Secure Sockets Layer (SSL) encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- Secure FTP allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- Critical Authentication Role ensures that important infrastructure devices such as IP phones are allowed network access even in the absence of a RADIUS server
- MAC Pinning allows non-chatty legacy devices to stay authenticated by pinning client MAC addresses to the port until the clients logoff or get disconnected
- Security banner displays a customized security policy when users log in to the switch



- RadSec enables RADIUS authentication and accounting data to be passed safely and reliably across insecure networks
- Private VLAN (PVLAN) provides traffic isolation between users on the same VLAN; typically a switch port can only communicate with other ports in the same community and/or an uplink port, regardless of VLAN ID or destination MAC address. This extends network security by restricting peer-peer communication to prevent variety of malicious attacks.
- Auto VLAN Creation automates VLAN creation on access switches for authenticated clients.

Multicast

- IGMP Snooping allows multiple VLANs to receive the same IPv4 multicast traffic, lessening network bandwidth demand by reducing multiple streams to each VLAN
- Multicast Listener Discovery (MLD) enables discovery of IPv6 multicast listeners; supports MLD v1 and v2
- Protocol Independent Multicast (PIM) defines modes of IPv4 and IPv6 multicasting to allow one-to-many and many-to-many transmission of information; supports PIM Sparse Mode (SM) and Dense Mode (DM) for both IPv4 and IPv6
- Internet Group Management Protocol (IGMP) utilizes Any-Source Multicast (ASM) to manage IPv4 multicast networks; supports IGMPv1, v2, and v3
- Multicast Service Discovery Protocol (MSDP) efficiently routes multicast traffic through core networks
- MSDP for Anycast RP is an intra-domain feature that provides redundancy and load-sharing capabilities

Convergence

- IP multicast routing includes PIM Sparse and Dense modes to route IP multicast traffic
- IP multicast snooping (data-driven IGMP) prevents flooding of IP multicast traffic
- Protocol Independent Multicast for IPv6 supports one-to-many and many-to-many media casting use cases such as IPTV over IPv6 networks
- LLDP-MED (Media Endpoint Discovery) defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones

- PoE allocations supports multiple methods (allocation by usage or class, with LLDP and LLDP-MED) to allocate PoE power for more efficient power management and energy savings
- Auto VLAN configuration for voice RADIUS VLAN uses a standard RADIUS attribute and LLDP-MED to automatically configure a VLAN for IP phones
- CDPv2 uses CDPv2 to configure legacy IP phones

Additional information

- Green initiative support for RoHS (EN 50581:2012) and WEEE regulations

Customer first, customer last support

When your network is important to your business, then your business needs the backing of Aruba Support Services. Partner with Aruba product experts to increase your team productivity, keep pace with technology advances, software releases, and obtain break-fix support.

-Foundation Care for Aruba support services include priority access to Aruba Technical Assistance Center(TAC) engineers 24x7x365, flexible hardware and onsite support options, and total coverage for Aruba products. Aruba switches with assigned Aruba Central subscriptions benefit with option for additional hardware support only.

-Aruba Pro Care adds fast access to senior Aruba TAC engineers, who are assigned as a single point of contact for case management, reducing the time spent addressing and resolving issues.

For complete details on Foundation Care and Aruba Pro Care, please visit: <https://www.arubanetworks.com/supportservices/>

Warranty, services and support

- Limited Lifetime Warranty, see <https://www.arubanetworks.com/support-services/product-warranties/> for warranty and support information included with your product purchase
- For Software Releases and Documentation, refer to <https://asp.arubanetworks.com/downloads>
- For support and services information, visit <https://www.arubanetworks.com/support-services/arubacare/>



SPECIFICATIONS

	Aruba 6405 Switch (R0X26A)	Aruba 6410 Switch (R0X27A)	Aruba 6405 96G CL4 PoE 4SFP56 Switch bundle (R0X29A)	Aruba 6405 48SFP+ 8SFP56 Switch bundle (R0X30A)	Aruba 6410 96G CLS4 PoE 4SFP56 Switch (JL741A)
Description	1x 6405 Chassis (R0X24A) 1x Management Module (R0X31A) 2x Fan Trays (R0X32A) 5 open module slots Power supply units not included; order separately Supports any of the following line cards in the open slots: R0X38B, R0X39B, R0X40B, R0X41A, R0X42A, R0X43A, R0X44A, R0X45A Supports PoE Standards IEEE 802.3af, 802.3at, 802.3bt (up to 60W) 1x RJ-45 Console Port 1x USB-C Console Port 1x OOBM 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	1x 6410 Chassis (R0X25A) 1x Management Module (R0X31A) 4x Fan Trays (R0X32A) 10 open module slots Power supply units not included; order separately Supports any of the following line cards in the open slots: R0X38B, R0X39B, R0X40B, R0X41A, R0X42A, R0X43A, R0X44A, R0X45A Supports PoE Standards IEEE 802.3af, 802.3at, 802.3bt (up to 60W) 1x RJ-45 Console Port 1x USB-C Console Port 1x OOBM 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	1x 6405 Chassis (R0X24A) 1x Management Module (R0X31A) 2x Fan Trays (R0X32A) 1x R0X38B Line Card 1x R0X39B Line Card Power supply units not included; order separately 96x 10/100/1000BaseT PoE+ Ports supporting up to 30W per port 4x 1GbE/10GbE/25GbE¹ SFP ports Supports any of the following line cards in the open slots: R0X38B, R0X39B, R0X40B, R0X41A, R0X42A, R0X43A, R0X44A, R0X45A Supports PoE Standards IEEE 802.3af, 802.3at, 802.3bt (up to 60W) 1x RJ-45 Console Port 1x USB-C Console Port 1x OOBM 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	1x 6405 Chassis (R0X24A) 1x Management Module (R0X31A) 2x Fan Trays (R0X32A) 2x R0X43A Line Card Power supply units not included; order separately 48x 1G/10G SFP+ ports 8x 1GbE/10GbE/25GbE¹ SFP ports Supports any of the following line cards in the open slots: R0X38B, R0X39B, R0X40B, R0X41A, R0X42A, R0X43A, R0X44A, R0X45A Supports PoE Standards IEEE 802.3af, 802.3at, 802.3bt (up to 60W) 1x RJ-45 Console Port 1x USB-C Console Port 1x OOBM 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	1x 6410 Chassis (R0X25A) 1x Management Module (R0X31A) 4x Fan Trays (R0X32A) 1x R0X38B Line Card 1x R0X39B Line Card 8 open module slots Power supply units not included; order separately 96x 10/100/1000BaseT PoE+ Ports supporting up to 30W per port 4x 1GbE/10GbE/25GbE¹ SFP ports Supports any of the following line cards in the open slots: R0X38B, R0X39B, R0X40B, R0X41A, R0X42A, R0X43A, R0X44A, R0X45A Supports PoE Standards IEEE 802.3af, 802.3at, 802.3bt (up to 60W) 1x RJ-45 Console Port 1x USB-C Console Port 1x OOBM 1x USB Type A Host port 1x Bluetooth dongle to be used with AOS-CX Mobile App
Power supplies	Supports four modular front-serviceable power supplies with removable rear-serviceable power cord inlet adapters. Supported Power Supplies: R0X35A, R0X36A. PoE available will be dependent on the number of management modules, line cards, fan trays and the number of power supplies used. Power supplies not included; order separately.				
Fans	Two field replaceable system fan trays	Four field replaceable system fan trays	Two field replaceable system fan trays	Two field replaceable system fan trays	Four field replaceable system fan trays
Physical characteristics					
Dimensions	(H) 30.66 cm x (W) 44.26 cm x (D) x 44.85 cm (12.1" x 17.5" x 17.7")	(H) 52.88 cm x (W) 44.26 cm x (D) 44.85 cm (20.8" x 17.5" x 17.7")	(H) 30.66 cm x (W) 44.26 cm x (D) x 44.85 cm (12.1" x 17.5" x 17.7")	(H) 30.66 cm x (W) 44.26 cm x (D) x 44.85 cm (12.1" x 17.5" x 17.7")	(H) 52.88 cm x (W) 44.26 cm x (D) 44.85 cm (20.8" x 17.5" x 17.7")
Configuration Weight	29.3 kg (64.7 lbs)	53.5 kg (118.2 lbs)	34.1 kg (75.2 lbs)	34.0 kg (75 lbs)	58.3 kg (128.8 lbs)
Additional Specifications					
CPU	Management Module: Quad Core ARM Cortex™ A72 @ 1.8GHz Line Card: Dual Core ARM Cortex™ A72 @ 1.8GHz				
Memory and Flash	Management Module: 16GB DDR4 ECC memory; 32GB eMMC Flash memory Line Card: 4GB DDR4 memory				
Packet Buffer	R0X38A-R0X43A and R0X38B-R0X40B Line Cards: 8MB packet buffer memory per line card R0X44A-R0X45A Line Cards: 32MB packet buffer memory per line card				
Performance					
System Switching Capacity	14 Tbps	28 Tbps	14 Tbps	14 Tbps	28 Tbps
System Throughput Capacity	5.7 Bpps	11.4 Bpps	5.7 Bpps	5.7 Bpps	11.4 Bpps



SPECIFICATIONS (CONTINUED)

	Aruba 6405 Switch (R0X26A)	Aruba 6410 Switch (R0X27A)	Aruba 6405 96G CL4 PoE 4SFP56 Switch bundle (R0X29A)	Aruba 6405 48SFP+ 8SFP56 Switch bundle (R0X30A)	Aruba 6410 96G CLS4 PoE 4SFP56 Switch (JL741A)
Performance (continued)					
Average Latency (LIFO-64-bytes packets)			1G: 5.32 µSec 10G: 1.48 µSec 25G: 2.78 µSec 40G: 1.31 µSec 100G: 1.42 µSec		
Switched Virtual Interfaces (dual stack)			2,048		
IPv4 Host Table (ARP)			49,152		
IPv6 Host Table (ND)			49,152		
IPv4 Unicast Routes			61,000		
IPv6 Unicast Routes			61,000		
IPv4 Multicast Routes			8,192		
IPv6 Multicast Routes			8,192		
MAC Table Capacity			32,768		
IGMP Groups			8,192		
MLD Groups			8,192		
IPv4/IPv6/MAC ACL Entries (ingress)		64,000/16,384/64,000 per line card for R0X44A and R0X45A 20,480/5,120/20,480 per line card for all other line cards			
IPv4/IPv6/MAC ACL Entries (egress)		20,480/5,120/20,480 per line card for all other line cards 8,192/2,048/8,192 per line card for all other line cards			
VRF			256		
Environment					
Operating Temperature		32°F to 113°F (0°C to 45°C), up to 5,000 feet 32°F to 104°F (0°C to 40°C), 5,001 to 10,000 feet 1°C de-rating per 1,000 feet above 5,000 feet			
Operating Relative Humidity		15% to 95% relative humidity at 113°F (45°C), non-condensing			
Non-Operating		-40°F to 158°F (-40°C to 70°C)			
Non-Operating Storage relative humidity		15% to 95% relative humidity at 149°F(65°C), non-condensing			
Max Operating Altitude		Up to 10,000 feet (3 km)			
Max non-operating Altitude		Up to 15,000 feet (4.5 km)			
Acoustics	• Sound power (LWAd): 6.6 Bel, Sound Pressure (LpAm, Bystander): 46.6 dB when tested with 2 x 1800W PSU (R0X35A), 2 x fan trays, 370W of PoE and traffic on all ports • Sound power (LWAd): 6.5 Bel, Sound Pressure (LpAm, Bystander): 46.3 dB when tested with 2 x 3000W PSU (R0X36A), 2 x fan trays, 370W of PoE and traffic on all ports	• Sound power (LWAd): 6.8 Bel, Sound Pressure (LpAm, Bystander): 48.8 dB when tested with 2 x 1800W PSU (R0X35A), 4 x fan trays, 370W of PoE and traffic on all ports • Sound power (LWAd): 6.8 Bel, Sound Pressure (LpAm, Bystander): 48.9 dB when tested with 2 x 3000W PSU (R0X36A), 4 x fan trays, 370W of PoE and traffic on all ports	• Sound power (LWAd): 6.6 Bel, Sound Pressure (LpAm, Bystander): 46.6 dB when tested with 2 x 1800W PSU (R0X35A), 2 x fan trays, 370W of PoE and traffic on all ports • Sound power (LWAd): 6.5 Bel, Sound Pressure (LpAm, Bystander): 46.3 dB when tested with 2 x 3000W PSU (R0X36A), 2 x fan trays, 370W of PoE and traffic on all ports	Not available	• Sound power (LWAd): 6.8 Bel, Sound Pressure (LpAm, Bystander): 48.8 dB when tested with 2 x 1800W PSU (R0X35A), 4 x fan trays, 370W of PoE and traffic on all ports • Sound power (LWAd): 6.8 Bel, Sound Pressure (LpAm, Bystander): 48.9 dB when tested with 2 x 3000W PSU (R0X36A), 4 x fan trays, 370W of PoE and traffic on all ports
Primary Airflow	Front-to-Back				



SPECIFICATIONS (CONTINUED)

	Aruba 6405 Switch (R0X26A)	Aruba 6410 Switch (R0X27A)	Aruba 6405 96G CL4 PoE 4SFP56 Switch bundle (R0X29A)	Aruba 6405 48SFP+ 8SFP56 Switch bundle (R0X30A)	Aruba 6410 96G CLS4 PoE 4SFP56 Switch (JL741A)
Electrical Characteristics					
Frequency	50/60 Hz				
80plus.org certification	Platinum rated for both R0X35A and R0X36A PSUs				
AC Voltage	R0X35A and R0X36A PSUs: 110-127 / 200-240VAC				
Current	R0X35A PSU: 12A @ 110-127VAC, 10A @ 200-240VAC R0X36A PSU: 16A @ 110-240VAC				
Power Output	R0X35A PSU: 1800W @ 200-240VAC, 1100W @ 110-127VAC R0X36A PSU: 3000W @ 200-240VAC, 1500W @ 110-127VAC				
Safety					
	EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 +A2:2013				
	EN62368-1:2014				
	IEC 60950-1:2005 Ed.2; AM 1:2009+A2:2013				
	IEC 62368-1 Ed. 2				
	IEC 60825:2007 (Applies to products with lasers)				
	UL 60950-1, CSA 22.2 No 60950-1				
	UL 62368-1 Ed. 2				
Emissions					
	VCCI Class A; EN 55022 Class A; CISPR 22 Class A; IEC/EN 61000-3-2				
	IEC/EN 61000-3-3; ICES-003 Class A; AS/NZS CISPR 22 Class A; FCC (CFR 47, Part 15) Class A; GB9254				
	EN55032:2012 Class A				
	CISPR32:2012 Class A				
Immunity					
Generic	Directive 2014/35/EU				
EN	EN 55024:2010 +A1:2001 +A2:2003; ETSI EN 300 386 V1.3.3				
ESD	EN 61000-4-2				
Radiated	EN 61000-4-3				
EFT/Burst	EN 61000-4-4				
Surge	EN 61000-4-5				
Conducted	EN 61000-4-6				
Power frequency magnetic field	IEC 61000-4-8				
Voltage dips and interruptions	EN 61000-4-11				
Harmonics	IEC/EN 61000-3-2				
Flicker	IEC/EN 61000-3-3				
Mounting and Enclosure					
	Cable management kit included. 2-post rack mounting kit included. 4-post rack mounting kit available separately				



STANDARDS AND PROTOCOLS

- ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
- CPU DoS Protection
- Bootstrap Router (BSR) Mechanism for PIM, PIM WG
- draft-ietf-savi-mix
- IEEE 802.1AB-2005
- IEEE 802.1ak-2007
- IEEE 802.1AX-2008 Link Aggregation
- IEEE 802.1D MAC Bridges
- IEEE 802.1p Priority
- IEEE 802.1Q VLANs
- IEEE 802.1s Multiple Spanning Trees
- IEEE 802.1t-2001
- IEEE 802.1v VLAN classification by Protocol and Port
- IEEE 802.1w Rapid Reconfiguration of Spanning Tree
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- IEEE 802.3ae 10-Gigabit Ethernet
- IEEE 802.3af Power over Ethernet
- IEEE 802.3at Power over Ethernet
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- IEEE 802.3bt Power over Ethernet
- IEEE 802.3z 1000BASE-X
- RFC 1122 Requirements for Internet Hosts -Communications Layers
- RFC 1215 Convention for defining traps for use with the SNMP
- RFC 1256 ICMP Router Discovery Messages
- RFC 1350 TFTP Protocol (revision 2)
- RFC 1393 Traceroute Using an IP Option
- RFC 1403 BGP OSPF Interaction
- RFC 1519 CIDR
- RFC 1542 BOOTP Extensions
- RFC 1583 OSPF Version 2
- RFC 1591 Domain Name System Structure and Delegation
- RFC 1657 Definitions of Managed Objects for BGP-4 using SMIv2
- RFC 1772 Application of the Border Gateway Protocol in the Internet
- RFC 1812 Requirements for IP Version 4 Router
- RFC 1918 Address Allocation for Private Internet
- RFC 1997 BGP Communities Attribute
- RFC 1998 An Application of the BGP Community Attribute in Multi-home Routing
- RFC 2131 DHCP
- RFC 2132 DHCP Options and BOOTP Vendor Extensions
- RFC 2236 IGMP
- RFC 2328 OSPF Version 2
- RFC 2375 IPv6 Multicast Address Assignments
- RFC 2385 Protection of BGP Sessions via the TCP MD5 Signature Option
- RFC 2401 Security Architecture for the Internet Protocol
- RFC 2402 IP Authentication Header
- RFC 2439 BGP Route Flap Damping
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 2464 Transmission of IPv6 over Ethernet Networks
- RFC 2545 Use of BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing
- RFC 2576 (Coexistence between SNMP V1, V2, V3)
- RFC 2579 (SMIv2 Text Conventions)
- RFC 2580 (SMIv2 Conformance)
- RFC 2710 Multicast Listener Discovery (MLD) for IPv6
- RFC 2711 IPv6 Router Alert Option
- RFC 2787 Definitions of Managed Objects for the Virtual Router Redundancy Protocol
- RFC 2918 Route Refresh Capability for BGP-4
- RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only)
- RFC 2934 Protocol Independent Multicast MIB for IPv4
- RFC 3019 MLDv1 MIB
- RFC 3046 DHCP Relay Agent Information Option
- RFC 3056 Connection of IPv6 Domains via IPv4 Clouds
- RFC 3065 Autonomous System Confederation for BGP
- RFC 3068 An Anycast prefix for 6to4 Relay Route
- RFC 3137 OSPF Stub Router Advertisement sFlow
- RFC 3376 IGMPv3
- RFC 3417 (SNMP Transport Mappings)
- RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
- RFC 3484 Default Address Selection for IPv6
- RFC 3509 Alternative Implementations of OSPF Area Border Routers
- RFC 3575 IANA Considerations for RADIUS
- RFC 3623 Graceful OSPF Restart
- RFC 3768 VRRP
- RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6
- RFC 3973 PIM Dense Mode
- RFC 4022 MIB for TCP
- RFC 4113 MIB for UDP
- RFC 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers
- RFC 4251 The Secure Shell (SSH) Protocol
- RFC 4252 SSHv6 Authentication



- RFC 4253 SSHv6 Transport Layer
- RFC 4254 SSHv6 Connection
- RFC 4271 A Border Gateway Protocol 4 (BGP-4)
- RFC 4273 Definitions of Managed Objects for BGP-4
- RFC 4291 IP Version 6 Addressing Architecture
- RFC 4292 IP Forwarding Table MIB
- RFC 4293 Management Information Base for the Internet Protocol (IP)
- RFC 4360 BGP Extended Communities Attribute
- RFC 4419 Key Exchange for SSH
- RFC 4443 ICMPv6
- RFC 4456 BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP)
- RFC 4486 Subcodes for BGP Cease Notification Message
- RFC 4541 IGMP & MLD Snooping Switch
- RFC 4552 Authentication/Confidentiality for OSPFv3
- RFC 4601 PIM Sparse Mode
- RFC 4675 RADIUS VLAN & Priority
- RFC 4724 Graceful Restart Mechanism for BGP
- RFC 4760 Multiprotocol Extensions for BGP-4
- RFC 4861 IPv6 Neighbor Discovery
- RFC 4862 IPv6 Stateless Address Auto-configuration
- RFC 4940 IANA Considerations for OSPF
- RFC 5065 Autonomous System Confederation for BGP
- RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
- RFC 5187 OSPFv3 Graceful Restart
- RFC 5340 OSPFv3 for IPv6
- RFC 5424 Syslog Protocol
- RFC 5492 Capabilities Advertisement with BGP-4
- RFC 5519 Multicast Group Membership Discovery MIB (MLDv2 only)
- RFC 5701 IPv6 Address Specific BGP Extended Community Attribute
- RFC 5722 Handling of Overlapping IPv6 Fragments
- RFC 5798 VRRP (exclude Accept Mode and sub-sec timer)
- RFC 5905 Network Time Protocol Version 4: Protocol and Algorithms Specification
- RFC 6620 FCFS SAVI
- RFC 6987 OSPF Stub Router Advertisement
- RFC 7047 The Open vSwitch Database Management Protocol
- RFC 7313 Enhanced Route Refresh Capability for BGP-4
- RFC 768 User Datagram Protocol
- RFC 783 TFTP Protocol (revision 2)
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP

- RFC 813 Window and Acknowledgement Strategy in TCP
- RFC 815 IP datagram reassembly algorithms
- RFC 8201 Path MTU Discovery for IP version 6
- RFC 826 ARP
- RFC 879 TCP maximum segment size and related topics
- RFC 896 Congestion control in IP/TCP internetworks
- RFC 917 Internet subnets
- RFC 919 Broadcasting Internet Datagrams
- RFC 922 Broadcasting Internet Datagrams in the Presence of Subnets (IP_BROAD)
- RFC 925 Multi-LAN address resolution
- RFC 951 BOOTP
- RFC 1027 Proxy ARP
- SNMPv1/v2c/v3
- RFC 4861 IPv6 Neighbor Discovery
- RFC 4862 IPv6 Stateless Address Auto-configuration
- ITU-T Rec G.8032/Y.1344 Mar. 2010
- RFC 1757 Remote Network Monitoring Management Information Base
- 2.5G/5GBASE-T (IEEE 802.3bz-2016), 2.5G/5G NBASE-T
- 10GBASE-T (IEEE 802.3an-2006)
- 25-Gigabit Ethernet (IEEE 802.3by-2016, 802.3cc-2017)
- 40-Gigabit Ethernet (IEEE 802.3ba-2010)
- 50-Gigabit Ethernet (IEEE 802.3cd-2018)¹
- 100-Gigabit Ethernet (IEEE 802.3ba-2010, 802.3bj-2014, 802.3bm-2014)
- RFC 3101 OSPF Not-so-stubby-area option
- RFC 4750 OSPFv2 MIB partial support no SetMIB

ARUBA CX 6400 SWITCHES AND ACCESSORIES

Switch Models

- Aruba 6405 Switch (R0X26A)
- Aruba 6410 Switch (R0X27A)
- Aruba 6405 96G CLS4 PoE 4SFP56 Switch bundle¹ (R0X29A)
- Aruba 6410 96G CLS4 PoE 4SFP56 Switch bundle¹ (JL741A)
- Aruba 6405 48SFP+ 8SFP56 Switch bundle¹ (R0X30A)

Modules

- Aruba 6400 Management Module (R0X31A)
- Aruba 6400 48p 1GbE CLS4 PoE Mod (R0X38B)
- Aruba 6400 48p 1GbE CLS4 PoE 4SFP56 Mod¹ (R0X39B)
- Aruba 6400 48p 1GbE CLS6 PoE 4SFP56 Mod¹ (R0X40B)
- Aruba 6400 48p Smart Rate CLS6 PoE 4SFP56 Mod¹ (R0X41A)
- Aruba 6400 24p 10GT 4SFP56 Mod¹ (R0X42A)
- Aruba 6400 24p SFP+ 4SFP56 Mod¹ (R0X43A)

¹ 50GbE transceiver capability enabled in future software release



- Aruba 6400 48p 10G/25G SFP28 Mod (R0X44A)
- Aruba 6400 12p 40G/100G QSFP28 Mod (R0X45A)

Power Supplies

- Aruba 6400 1800W PS w/C16 Inlet Accessory (R0X35A)
- Aruba 6400 3000W PS w/C20 Inlet Accessory (R0X36A)

Fan Tray

- Aruba 6400 Fan Tray (R0X32A)

Mounting Kit

- Aruba 6400 4-post Rack Mount Kit (R0X37A)

Cables

- Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281D)
- Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283D)
- Aruba 25G SFP28 to SFP28 0.65m Direct Attach Copper Cable (JL487A)
- Aruba 25G SFP28 to SFP28 3m Direct Attach Copper Cable (JL488A)
- Aruba 25G SFP28 to SFP28 5m Direct Attach Copper Cable (JL489A)
- HPE X242 40G QSFP+ to QSFP+ 1m DAC Cable (JH234A)
- HPE X242 40G QSFP+ to QSFP+ 3m DAC Cable (JH235A)
- HPE X242 40G QSFP+ to QSFP+ 5m DAC Cable (JH236A)
- Aruba 100G QSFP28-QSFP28 3m DAC Cable (JL307A)

Transceivers¹

- Aruba 1G SFP LC SX 500m MMF Transceiver (J4858D)
- Aruba 1G SFP LC LX 10km SMF Transceiver (J4859D)
- Aruba 1G SFP LC LH 70km SMF Transceiver (J4860D)
- Aruba 1G SFP RJ45 T 100m Cat5e Transceiver (J8177D)
- Aruba 10G SFP+ LC SR 300m MMF Transceiver (J9150D)
- Aruba 10G SFP+ LC LR 10km SMF Transceiver (J9151E)
- Aruba 10G SFP+ LC ER 40km SMF Transceiver (J9153D)
- Aruba 10GBASE-T SFP+ RJ-45 30m Cat6A Transceiver (JL563A)
- Aruba 25G SFP28 LC SR 100m MMF Transceiver (JL484A)
- Aruba 25G SFP28 LC eSR 400m MMF Transceiver (JL485A)
- Aruba 25G SFP28 LC LR 10km SMF Transceiver (JL486A)
- Aruba 40G QSFP+ LC BiDi 150m MMF Optical Transceiver (JL308A)
- HPE X142 40G QSFP+ MPO SR4 Optical Transceiver (JH231A)
- HPE X142 40G QSFP+ MPO eSR4 300M Optical Transceiver (JH233A)

- HPE X142 40G QSFP+ LC LR4 SMF Optical Transceiver (JH232A)
- Aruba 40G QSFP+ LC ER4 40km SMF Optical Transceiver (Q9G82A)
- Aruba 100G QSFP28 MPO SR4 MMF Optical Transceiver (JL309A)
- Aruba 100G QSFP28 LC LR4 SMF Optical Transceiver (JL310A)

Software

- Aruba CX Mobile App <https://www.arubanetworks.com/products/networking/switches/cx-mobileapp/>
- Aruba NetEdit Single Node: 1 year (JL639AAE)
- Aruba NetEdit Single Node: 3 years (JL640AAE)

Aruba Central Foundation Licenses

- Aruba Central 64xx or 54xx Switch Foundation 1 year Subscription E-STU (R8L80AAE)
- Aruba Central 64xx or 54xx Switch Foundation 3 year Subscription E-STU (R8L81AAE)
- Aruba Central 64xx or 54xx Switch Foundation 5 year Subscription E-STU (R8L82AAE)
- Aruba Central 64xx or 54xx Switch Foundation 7 year Subscription E-STU (R8L83AAE)
- Aruba Central 64xx or 54xx Switch Foundation 10 year Subscription E-STU (R8L84AAE)
- Aruba Central On-Premises 64xx or 54xx Switch Foundation 1 year Subscription E-STU (R8M10AAE)
- Aruba Central On-Premises 64xx or 54xx Switch Foundation 3 year Subscription E-STU (R8M11AAE)
- Aruba Central On-Premises 64xx or 54xx Switch Foundation 5 year Subscription E-STU (R8M12AAE)
- Aruba Central On-Premises 64xx or 54xx Switch Foundation 7 year Subscription E-STU (R8M13AAE)
- Aruba Central On-Premises 64xx or 54xx Switch Foundation 10 year Subscription E-STU (R8M14AAE)

For details and complete listing of Aruba Central licensing options, please refer to the **Aruba Central Data Sheet**.

¹ 50GbE transceiver capability enabled in future software release



Support

- R0X26A: 4 Hour Onsite 3 Year (HL8P0E)
- R0X27A: 4 Hour Onsite 3 Year (HR7V1E)
- R0X29A: 4 Hour Onsite 3 Year (HL8P0E)
- JL741A: 4 Hour Onsite 3 Year (HR7V1E)
- R0X30A: 4 Hour Onsite 3 Year (HL8P0E)

For Aruba Central hardware only support, 24x7 TAC support, and many other support options, go to [Support Services Central SKU lookup tool](#).

DATA SHEET

ARUBA CX 6300 SWITCH SERIES

PRODUCT OVERVIEW

The Aruba CX 6300 Switch Series is a modern, flexible and intelligent family of stackable switches ideal for enterprise network access, aggregation, core and data center top of rack (ToR) deployments. Created for game-changing operational efficiency with built-in security and resiliency, the 6300 switches provide the foundation for high-performance networks supporting IoT, mobile and cloud applications.

Built from the ground up with a combination of cutting-edge hardware, software and analytics and automation tools, the stackable 6300 switches are part of the Aruba CX switching portfolio, designed for today's enterprise campus, branch and data center networks. By combining a modern, fully programmable OS with the Aruba Network Analytics Engine, the 6300 switches provide industry leading monitoring and troubleshooting capabilities for the access layer.

A powerful Aruba Gen7 ASIC architecture delivers performance and robust feature support with flexible programmability for tomorrow's applications. The Aruba Virtual Stacking Framework (VSF) allows for stacking of up to 10 switches, providing scale and simplified management. This flexible series has built-in wirespeed 1GbE/10GbE/25GbE¹ uplinks and supports high density IEEE 802.3bt high power PoE. HPE Smart Rate multi-gigabit Ethernet paves the way for high speed access points and IoT devices by delivering fast connectivity and high power PoE using existing cabling. Modular models offer redundancy and PoE customization with hot-swappable power supplies and fans. Back-to-front airflow available in switch bundle for hot-cold aisle top-of-rack (TOR) and out-of-band-management (OOBM) data center deployments.

Aruba Dynamic Segmentation extends Aruba's foundational wireless role-based policy capability to Aruba wired switches. What this means is that the same security, user experience and simplified IT management can be enjoyed throughout the network. Regardless of how users and IoT devices connect, consistent policies are enforced across wired and wireless networks, keeping traffic secure and separate.



KEY BENEFITS

- Stackable Layer 3 switches with BGP, EVPN, VXLAN, VRF, and OSPF with robust security and QoS
- High performance 880 Gbps system switching capacity, 660 MPPS of system throughput and up to 200 Gbps stacking bandwidth
- Compact 1U switches with full density HPE Smart Rate (1/2.5/5GbE) multi-gigabit, 60W PoE and SFP+ models
- Power-to-port switch bundle with back-to-front airflow ideal for data center 1GbE ToR and OOBM deployments
- Built-in high speed 10GbE/25GbE uplinks¹ (50GbE¹ transceiver capability will be enabled in future software release)
- 50GbE connectivity with 50GbE DACs¹
- Intelligent monitoring, visibility, and remediation with Aruba Network Analytics Engine
- Manage via single pane of glass with Aruba Central across wired, wireless, and WAN
- Aruba NetEdit support for automated configuration and verification
- Aruba Dynamic Segmentation enables secure and simple access for users and IoT

PRODUCT DIFFERENTIATORS

AOS-CX - a modern operating system

The Aruba CX 6300 Switch Series is based on AOS-CX, a modern, database-driven operating system that automates and simplifies many critical and complex network tasks. A built-in time series database enables customers and developers to utilize software scripts for historical

¹ 50G capability is for use with 50G DACs for both interconnect and VSF stacking. 50G transceiver capability enabled by future software release.



troubleshooting, as well as analysis of past trends. This helps predict and avoid future problems due to scale, security, and performance bottlenecks.

Our AOS-CX software also includes Aruba Network Analytics Engine (NAE) and support for Aruba NetEdit. Because AOS-CX is built on a modular Linux architecture with a stateful database, our operating system provides the following unique capabilities:

- Easy access to all network state information allows unique visibility and analytics
- REST APIs and Python scripting for fine-grained programmability of network tasks
- A micro-services architecture that enables full integration with other workflow systems and services
- Continuous telemetry data with WebSocket subscriptions for event driven automation
- Continual state synchronization that provides superior fault tolerance and high availability
- All software processes communicate with the database rather than each other, ensuring near real-time state and resiliency and allowing individual software modules to be independently upgraded for higher availability

Aruba Central - unified single pane of glass management

Flexible cloud-based or on-premises management for unified network operations of wired, WLAN, SD-WAN, and public cloud infrastructure. Designed to simplify day zero through day two operations with streamlined workflows. Switch management capabilities include configuration, onboarding, monitoring, troubleshooting, and reporting.

Aruba Network Analytics Engine - advanced monitoring and diagnostics

For enhanced visibility and troubleshooting, Aruba's Network Analytics Engine (NAE) automatically monitors and analyzes events that can impact network health. Advanced telemetry and automation provide the ability to easily identify and troubleshoot network, system, application and security related issues easily, through the use of python agents and REST APIs.

The Time Series Database (TSDB) stores configuration and operational state data, making it available to quickly resolve network issues. The data may also be used to analyze trends, identify anomalies and predict future capacity requirements.

Aruba NetEdit – automated switch configuration and management

The entire Aruba CX portfolio empowers IT teams to orchestrate multiple switch configuration changes for smooth end-to-end service rollouts. Aruba NetEdit introduces automation that allows for rapid network-wide changes, and ensures policy conformance post network updates. Intelligent capabilities include search, edit, validation (including conformance checking), deployment and audit features. Capabilities include:

- Centralized configuration with validation for consistency and compliance
- Time savings via simultaneous viewing and editing of multiple configurations
- Customized validation tests for corporate compliance and network change analysis
- Automated large-scale configuration deployment without programming
- Network health and topology visibility via Aruba NAE integration

Note: A separate software license is required to use Aruba NetEdit.

Aruba CX Mobile App – true deployment convenience

An easy to use mobile app simplifies connecting and managing Aruba CX 6300 switches for any size project. Switch information can also be imported into Aruba NetEdit for simplified configuration management and to continuously validate the conformance of configurations anywhere in the network. The Aruba CX Mobile App is available for [download](#).

Aruba ASICs - programmable innovation

Based on over 30 years of continuous investment, Aruba's ASICs create the basis for innovative and agile software feature advancements, unparalleled performance and deep visibility. These programmable ASICs are purpose-built to allow for a tighter integration of switch hardware and software within campus and data center architectures to optimize performance and capacity. Virtual Output Queuing (VOQ) isolates congestion, prevents Head of Line Blocking (HOLB) and allows full line rate on outgoing (egress) ports. Flexible ASIC resources enable Aruba's NAE solution to inspect all data, which allows for industry-leading analytics capabilities. The Aruba CX 6300 is based on the Aruba Gen7 ASIC architecture.



Aruba Dynamic Segmentation – campus and branch fabric

The Aruba Dynamic Segmentation solution enables seamless mobility, consistent policy enforcement, and automated configurations for wired and wireless clients across networks of all sizes. And it extends these benefits to applications hosted on the data center and the public cloud.

This innovation begins with colorless ports and role-based micro-segmentation technologies. Colorless ports allows wired clients to connect to any switch port, with the configuration automated using Radius-Based Access Control. This eliminates the need for manual on-boarding of clients, including IoT devices, onto the network.

Role-based micro-segmentation delivers benefits of reduced subnet and VLAN sprawl, simplified policy definition, and scales policy enforcement by introducing the concept of client User Roles. These roles are independent of network constructs such as VLANs and VRFs, and allows clients to be grouped into a User Role based on their identity. This allows the colorless ports technology to be extended to the overlay fabric, as clients are on-boarded with automatic tunnel creation based on the associated User Role policy. The User Role policy also offers the choice between micro-segmentation with a Layer 4 Role-Role ACL on switches or a Layer 7 stateful firewall enforcement.

Dynamic Segmentation provides much needed scale and flexibility in network design by allowing the stretching of VLANs and subnets across the entire network. Fabric overlays offer VXLAN or VXLAN-GBP tunnels on the data plane and provide the option of a Multi-Protocol BGP eVPN control plane for large deployments, or a static Layer 2 control plane for simplified deployments.

Dynamic Segmentation also eliminates the complexity of service-chaining and redirection of traffic to 3rd party firewalls. User Role Policy can steer client's traffic on overlay tunnels (User Based Tunnels) to Aruba's Policy Enforcement Firewall for deep-packet inspection and application aware Layer 7 stateful firewall filtering. After performing this stateful inspection for any security threats, the traffic is automatically put back on the VXLAN fabric to be delivered to its destination.

Mobility and IoT performance

The Aruba CX 6300 Switch Series uses a fully distributed architecture that utilizes the Aruba Gen7 ASICs. This ensures that our switches offer very low latency, increased packet buffering, and adaptive power consumption. All switching and routing are wire-speed to meet the demands of bandwidth-intensive applications today and in the future. Each switch includes the following:

- Up to 880 Gbps in non-blocking bandwidth and up to 660 Mpps for forwarding
- 10GbE/25GbE uplinks¹ and large TCAM sizes ideal for mobility and IoT deployments in large campuses with several thousand clients
- Selectable queue configurations that allow for increased performance by defining a number of queues and associated memory buffering to best meet the requirements of network applications

VSF Stacking - scale and simplicity

The Aruba Virtual Switching Framework (VSF) allows you to quickly grow your network using high performance front plane stacking. Four built-in SFP56 ports support speeds of 1GbE, 10GbE, and 25GbE¹ for a total of up to 200 Gbps of stacking throughput per switch. Additional features include:

- Support for up to 10 switches (or members) in a stack via chain or ring topology
- Flexibility to create stacks that span longer distances such as hundreds of meters across campuses to kilometres between sites using long-range 10GbE/25GbE¹ transceivers
- Flexibility to mix both modular and fixed Aruba 6300 models within a single stack to meet your deployment requirements
- Simplified configuration and management as the switches act as a single chassis when stacked
- The Aruba CX Mobile app provides support for a validated stack deployment that ensure that all stack links and uplinks are connected properly

An Aruba CX 6300 switch for any enterprise environment

Whether in the branch office or a small to large enterprise environment, you can choose from 24 and 48 port 1U models. Each switch includes four high-speed built-in uplinks that auto-negotiate from 1GbE, 10GbE to 25GbE¹ to deliver non-blocking performance. Fixed format (F) models include built-in power supplies. The modular (M) models have rear

¹ 50G capability is for use with 50G DACs for both interconnect and VSF stacking. 50G transceiver capability enabled by future software release.



slots for hot swappable power supplies that allow you to customize your PoE requirements, and its fans are field replaceable. Additional highlights:

- Compact 1U models support:
 - 24 and 48 ports of HPE Smart Rate Multi-gigabit Ethernet IEEE 802.3bz (100M/1GbE/2.5GbE/5GbE) supporting high power IEEE 802.3bt Class 6 (60W)
 - High density 24 port SFP+ model which is ideal for aggregation
 - 10GbE/25GbE uplink¹ port connectivity
- HPE Smart Rate multi-gigabit (IEEE 802.3bz) Ethernet supports high speed wireless access points
- For deployments that need higher port and PoE density, the 6300 supports 60W of PoE in every port of a 48-port switch for a total of 2880W of PoE
- Industry standard IEEE 802.3bt High Power PoE support (class 6) provides up to 60W per port for support of the latest IoT devices and APs. PoE support for IEEE 802.3at Power over Ethernet (PoE+) provides up to 30W per port as well as any IEEE 802.3af-compliant end device
- Support for pre-standard PoE detection provides power to legacy PoE devices
- High availability with always-on PoE that supplies PoE power even during scheduled reboots and firmware upgrades
- Quick PoE supplies PoE power to powered devices as soon as the switch is plugged into AC power so device can initialize at same time as switch OS boots up.
- Support for Energy Efficient Ethernet IEEE 802.3az reduces power consumption during periods of low network traffic.
- Support for top-of-rack (ToR) and out-of-band management (OOBM) data center deployments with CX 6300M Power-to-port bundle that delivers required power-to-port (back to front) airflow.
- Auto-MDIX provides automatic adjustments for straight-through or crossover cables on all 10/100/1000, Smart Rate and 10GBASE-T ports
- Unsupported Transceiver Mode (UTM) allows to insert and enable all unsupported 1G and 10G transceivers and cables. Note that there is no warranty nor support for the transceiver/cable when this feature is used
- IPv6 capabilities include:
 - IPv6 host enables switches to be managed in an IPv6 network
 - Dual stack (IPv4 and IPv6) transitions from IPv4 to IPv6, supporting connectivity for both protocols

- MLD snooping forwards IPv6 multicast traffic to the appropriate interface
- IPv6 ACL/QoS supports ACL and QoS for IPv6 network traffic
- IPv6 routing supports Static and OSPFv3 protocols
- Security provides RA guard, DHCPv6 protection, dynamic IPv6 lockdown, and ND snooping
- Jumbo frames allow for high-performance backups and disaster-recovery systems; provides a maximum frame size of 9198 bytes
- Packet storm protection against broadcast and multicast storms with user-defined thresholds
- Smart link enables simple, fast converging link redundancy and load balancing with dual uplinks avoiding Spanning Tree complexities

CX 6300M bundle for data centers

The CX 6300M 48 port power-to-port switch bundle serves as a top of rack (ToR) switch for 1GbE servers and also as a 1GbE out-of-band management (OOBM) switch for data centers server racks. Features include:

- Power-to-port bundle (JL762A) includes 48 port 1GbE switch with 2 x Fan Trays (JL761A) and 1 x power supply (JL760A)
- Back (power-side) to front (1GbE port side) airflow
- 1GbE/10GbE/25GbE¹ SFP uplinks

High availability and resiliency

To ensure a high degree of up-time we offer high availability and multicast features needed for a full Layer 3 deployment at access and aggregation such as PBR, BFD, MSDP, BSR, and IP SLA without the need for software licenses. This includes:

- Hot Swappable Power Supplies available in the 6300 "M" models
 - Provides N+1 and N+N redundancy for high reliability in the event of power line or supply failures
 - Optional secondary power supplies to increase the total available PoE power
- Fixed power supplies in 6300 "F" models
- Bidirectional Forward Detection (BFD) enables sub-second failure detection for rapid routing protocol re-balancing, supporting both IPV4 and IPV6 networks
- Virtual Router Redundancy Protocol (VRRP) allows groups of two routers to dynamically create highly available routed environments in IPV4 and IPV6 networks

¹ 50G capability is for use with 50G DACs for both interconnect and VSF stacking. 50G transceiver capability enabled by future software release.



- Uni-directional Link Detection (UDLD) to monitor link connectivity and shut down ports at both ends if uni-directional traffic is detected, preventing loops in STP-based networks
- IEEE 802.3ad LACP supports up to 256 LAGs, each with up to 8 links per LAG; and provides support for static or dynamic groups and a user-selectable hashing algorithm
- IEEE 802.1s Multiple Spanning Tree provides high link availability in VLAN environments where multiple spanning trees are required; and legacy support for IEEE 802.1d and IEEE 802.1w
- IEEE 802.3ad link-aggregation-control protocol (LACP) and port trunking support static and dynamic trunks where each trunk supports up to eight links (ports) per static trunk
- Support for Microsoft Network Load Balancer (NLB) for server applications
- Ethernet Ring Protection Switching (ERPS) supports rapid protection and recovery in a ring topology

Quality of Service (QoS) features

To support congestion actions and traffic prioritization, the Aruba CX 6300 Series includes the following:

- Strict priority (SP) queuing and Deficit Weighted Round Robin (DWRR)
- Traffic prioritization (IEEE 802.1p) for real-time classification into 8 priority levels that are mapped to 8 queues
- Layer 4 prioritization based on TCP/UDP port numbers
- Class of Service (CoS) sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ
- Rate limiting sets per-port ingress enforced maximums and per-port, per-queue minimums
- Transmission rates of egressing frames can be limited on a per-queue basis using Egress Queue Shaping (EQS)
- Large buffers for graceful congestion management

Simplified configuration and management

In addition to Aruba Central, the Aruba CX Mobile App, Aruba NetEdit and Aruba Network Analytics Engine, the 6300 series offers the following:

- Built-in programmable and easy to use REST API interface
- Simple day zero provisioning
- Scalable ASIC-based wire speed network monitoring and accounting with no impact on network performance; network operators can gather a variety of network

statistics and information for capacity planning and real-time network monitoring purposes

- Management interface control enables or disables each of the following depending on security preferences, console port, or reset button
- Industry-standard CLI with a hierarchical structure for reduced training time and expense. Delivers increased productivity in multivendor environments
- Management security restricts access to critical configuration commands, provides multiple privilege levels with password protection and local and remote syslog capabilities allow logging of all access
- SNMP v2c/v3 provides SNMP read and trap support of industry standard Management Information Base (MIB), and private extensions
- Remote monitoring (RMON) with standard SNMP to monitor essential network functions. Supports events, alarms, history, and statistics groups as well as a private alarm extension group; RMON, and sFlow provide advanced monitoring and reporting capabilities for statistics, history, alarms and events
- TFTP and SFTP support offers different mechanisms for configuration updates; trivial FTP (TFTP) allows bidirectional transfers over a TCP/ IP network; Secure File Transfer Protocol (SFTP) runs over an SSH tunnel to provide additional security
- Debug and sampler utility supports ping and traceroute for IPv4 and IPv6
- Network Time Protocol (NTP) synchronizes timekeeping among distributed time servers and clients; keeps timekeeping consistent among all clock-dependent devices within the network so the devices can provide diverse applications based on the consistent time
- IEEE 802.1AB Link Layer Discovery Protocol (LLDP) advertises and receives management information from adjacent devices on a network, facilitating easy mapping by network management applications
- Dual flash images provides independent primary and secondary operating system files for backup while upgrading
- Assignment of descriptive names to ports for easy identification
- Multiple configuration files can be stored to a flash image
- Ingress and egress port monitoring enable more efficient network problem solving



- Unidirectional link detection (UDLD) monitors the link between two switches and blocks the ports on both ends of the link if the link goes down at any point between the two devices
- IP SLA for Voice monitors quality of voice traffic using the UDP Jitter and UDP Jitter for VoIP tests
- Precision Time Protocol allows precise clock synchronization across distributed network switches as defined in IEEE 1588. Needed for time critical applications like AVB, smart grid power automation, etc. Supports transparent clock E-E

Layer 2 Switching

The following layer 2 services are supported:

- VLAN support and tagging for IEEE 802.1Q (4094 VLAN IDs)
- Jumbo packet support improves the performance of large data transfers; supports frame size of up to 9198 bytes
- IEEE 802.1v protocol VLANs isolate select non-IPv4 protocols automatically into their own VLANs
- Rapid Per-VLAN Spanning Tree (RPVST+) allows each VLAN to build a separate spanning tree to improve link bandwidth usage; is compatible with PVST+
- MVRP allows automatic learning and dynamic assignment of VLANs
- VXLAN encapsulation (tunnelling) protocol for overlay network that enables a more scalable virtual network deployment
- Bridge Protocol Data Unit (BPDU) tunnelling Transmits STP BPDUs transparently, allowing correct tree calculations across service providers, WANs, or MANs
- Port mirroring duplicates port traffic (ingress and egress) to a monitoring port; supports 4 mirroring groups
- STP supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- Internet Group Management Protocol (IGMP) Controls and manages the flooding of multicast packets in a Layer 2 network
- IPv4 Multicast in VXLAN/EVPN Overlay support allows PIM-SM/IGMP snooping in the VXLAN Overlay
- IPv6 VXLAN/EVPN Overlay support, allows IPv6 traffic over the VXLAN overlay
- VXLAN ARP/ND suppression allows minimization of ARP and ND traffic flooding within individual VXLAN segments, thus optimizing the VXLAN network

Layer 3 Services

The following layer 3 services are supported:

- Bidirectional Forwarding Detection (BFD) enables link connectivity monitoring and reduces network convergence time for static route, OSPFv2 and VRRP
- User Datagram Protocol (UDP) helper function allows UDP broadcasts to be directed across router interfaces to specific IP unicast or subnet broadcast addresses and prevents server spoofing for UDP services such as DHCP
- Loopback interface address defines an address in Open Shortest Path First (OSPF), improving diagnostic capability
- Route maps provide more control during route redistribution; allow filtering and altering of route metrics
- Address Resolution Protocol (ARP) determines the MAC address of another IP host in the same subnet; supports static ARPs; gratuitous ARP allows detection of duplicate IP addresses; proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 network
- Dynamic Host Configuration Protocol (DHCP) simplifies the management of large IP networks and supports client; DHCP Relay enables DHCP operation across subnets
- DHCP server centralizes and reduces the cost of IPv4 address management
- Domain Name System (DNS) provides a distributed database that translates domain names and IP addresses, which simplifies network design; supports client and server
- mDNS (Multicast Domain Name System) Gateway enables discovery of mDNS groups across L3 boundaries
- Generic Routing Encapsulation (GRE) enables tunneling traffic from site to site over a Layer 3 path
- Supports internal loopback testing for maintenance purposes and increased availability; loopback detection protects against incorrect cabling or network configurations and can be enabled on a per-port or per-VLAN basis for added flexibility
- IP sub-interface is a virtual interface created by dividing physical interface into multiple logical interfaces tagged using different VLAN-IDs. A physical interface can be a regular physical, Split port or LAG L3 interface. A sub-interface is used for many uses-cases such as VRF-lite interconnection and inter-vlan routing (router on-a-stick)



Layer 3 Routing

The following layer 3 routing services are supported:

- Border Gateway Protocol (BGP) provides IPv4 and IPv6 routing, which is scalable, robust, and flexible
- Border Gateway Protocol 4 (BGP-4) delivers an implementation of the Exterior Gateway Protocol (EGP) utilizing path vectors; uses TCP for enhanced reliability for the route discovery process; reduces bandwidth consumption by advertising only incremental updates; supports extensive policies for increased flexibility; scales to very large networks with graceful restart capability
- Equal-Cost Multipath (ECMP) enables multiple equal-cost links in a routing environment to increase link redundancy and scale bandwidth
- Multi-protocol BGP (MP-BGP) enables sharing of IPv6 routes using BGP and connections to BGP peers using IPv6
- Routing Information Protocol version 2 (RIPv2) provides an easy to configure routing protocol for small networks as while RIPv2 provides support for small IPv6 networks
- Open shortest path first (OSPF) delivers faster convergence; uses link-state routing Interior Gateway Protocol (IGP), which supports ECMP, NSSA, and MD5 authentication for increased security and graceful restart for faster failure recovery
- OSPF provides OSPFv2 for IPv4 routing and OSPFv3 for IPv6 routing
- Static IP routing provides manually configured routing; includes ECMP capability
- Policy-based routing uses a classifier to select traffic that can be forwarded based on policy set by the network administrator
- Static IPv4 and IPv6 routing provides simple manually configured IPv4 and IPv6 routes
- IP performance optimization provides a set of tools to improve the performance of IPv4 networks; includes directed broadcasts, customization of TCP parameters, support of ICMP error packets, and extensive display capabilities
- Dual IP stack maintains separate stacks for IPv4 and IPv6 to ease the transition from an IPv4-only network to an IPv6-only network design

Security

The Aruba CX 6300 Switch Series come with an integrated trusted platform module (TPM) for platform integrity. This ensures the boot process started from a trusted combination of Aruba AOS-CX switches. Other security features include:

- TAA Compliance uses FIPS 140-2 validated cryptography for protection of sensitive information
- Access control list (ACL) support for both IPv4 and IPv6; allows for filtering traffic to prevent unauthorized users from accessing the network, or for controlling network traffic to save resources; rules can either deny or permit traffic to be forwarded; rules can be based on a Layer 2 header or a Layer 3 protocol header
- ACLs also provide filtering based on the IP field, source/destination IP address/subnet, and source/destination TCP/UDP port number on a per-VLAN or per-port basis
- Enrollment over Secure Transport (EST) enables secure certificate enrollment, allowing for easier enterprise management of PKI
- Remote Authentication Dial-In User Service (RADIUS)
- Terminal Access Controller Access-Control System (TACACS+) delivers an authentication tool using TCP with encryption of the full authentication request, providing additional security
- Management access security for both on- and off-box authentication for administrative access. RADIUS or TACACS+ can be used to provide encrypted user authentication. Additionally, TACACS+ can also provide admin authorization services
- Control Plane Policing sets rate limit on control protocols to protect CPU overload from DOS attacks
- Supports multiple user authentication methods. Uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards
- Web based authentication using Captive Portal on ClearPass is supported for use cases such as Guest Access and for devices that don't support 802.1x or MAC Auth.
- Supports MAC-based client authentication
- Concurrent IEEE 802.1X, Web, and MAC authentication schemes per switch port accepts up to 32 sessions of IEEE 802.1X, Web, and MAC authentications
- DHCP protection blocks DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks



- Secure management access delivers secure encryption of all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3
- Switch CPU protection provides automatic protection against malicious network traffic trying to shut down the switch
- ICMP throttling defeats ICMP denial-of-service attacks by enabling any switch port to automatically throttle ICMP traffic
- Identity-driven ACL enables implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user
- STP BPDU port protection blocks Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks
- Dynamic IP lockdown works with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing
- Dynamic ARP protection blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data
- STP root guard protects the root bridge from malicious attacks or configuration mistakes
- Port security allows access only to specified MAC addresses, which can be learned or specified by the administrator
- MAC address lockout prevents particular configured MAC addresses from connecting to the network
- Source-port filtering allows only specified ports to communicate with each other
- Secure shell encrypts all transmitted data for secure remote CLI access over IP networks
- Secure Sockets Layer (SSL) encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch
- Secure FTP allows secure file transfer to and from the switch; protects against unwanted file downloads or unauthorized copying of a switch configuration file
- Critical Authentication Role ensures that important infrastructure devices such as IP phones are allowed network access even in the absence of a RADIUS server
- MAC Pinning allows non-chatty legacy devices to stay authenticated by pinning client MAC addresses to the port until the clients logoff or get disconnected
- Security banner displays a customized security policy when users log in to the switch

- RadSec enables RADIUS authentication and accounting data to be passed safely and reliably across insecure networks
- Private VLAN (PVLAN) provides traffic isolation between users on the same VLAN; typically a switch port can only communicate with other ports in the same community and/or an uplink port, regardless of VLAN ID or destination MAC address. This extends network security by restricting peer-peer communication to prevent variety of malicious attacks.
- Auto VLAN Creation automates VLAN creation on access switches for authenticated clients.

Multicast

- IGMP Snooping allows multiple VLANs to receive the same IPv4 multicast traffic, lessening network bandwidth demand by reducing multiple streams to each VLAN
- Multicast Listener Discovery (MLD) enables discovery of IPv6 multicast listeners; support MLD v1 and v2
- Protocol Independent Multicast (PIM) defines modes of IPv4 and IPv6 multicasting to allow one-to-many and many-to-many transmission of information; supports PIM Sparse Mode (SM) and Dense Mode (DM) for both IPv4 and IPv6
- Internet Group Management Protocol (IGMP) utilizes Any-Source Multicast (ASM) to manage IPv4 multicast networks; supports IGMPv1, v2, and v3
- Multicast Service Discovery Protocol (MSDP) efficiently routes multicast traffic through core networks
- MSDP for Anycast RP is an intra-domain feature that provides redundancy and load-sharing capabilities

Convergence

- IP multicast routing includes PIM Sparse and Dense modes to route IP multicast traffic
- IP multicast snooping (data-driven IGMP) prevents flooding of IP multicast traffic
- Protocol Independent Multicast for IPv6 supports one-to-many and many-to-many media casting use cases such as IPTV over IPv6 networks
- LLDP-MED (Media Endpoint Discovery) defines a standard extension of LLDP that stores values for parameters such as QoS and VLAN to automatically configure network devices such as IP phones
- PoE allocations supports multiple methods (allocation by usage or class, with LLDP and LLDP-MED) to allocate PoE power for more efficient power management and energy savings.



- Auto VLAN configuration for voice RADIUS VLAN uses a standard RADIUS attribute and LLDP-MED to automatically configure a VLAN for IP phones
- CDPv2 uses CDPv2 to configure legacy IP phones

Additional information

- Green initiative support for RoHS (EN 50581:2012) and WEEE regulations

Customer first, customer last support

When your network is important to your business, then your business needs the backing of Aruba Support Services. Partner with Aruba product experts to increase your team productivity, keep pace with technology advances, software releases, and obtain break-fix support.

-Foundation Care for Aruba support services include priority access to Aruba Technical Assistance Center(TAC) engineers 24x7x365, flexible hardware and onsite support options, and total coverage for Aruba products. Aruba switches with assigned Aruba Central subscriptions benefit with option for additional hardware support only.

-Aruba Pro Care adds fast access to senior Aruba TAC engineers, who are assigned as a single point of contact for case management, reducing the time spent addressing and resolving issues.

For complete details on Foundation Care and Aruba Pro Care, please visit: <https://www.arubanetworks.com/supportservices/>

Warranty, services and support

- Limited Lifetime Warranty, see <https://www.arubanetworks.com/support-services/product-warranties/> for warranty and support information included with your product purchase
- For Software Releases and Documentation, refer to <https://asp.arubanetworks.com/downloads>
- For support and services information, visit <https://www.arubanetworks.com/support-services/arubacare/>



SPECIFICATIONS				
	Aruba 6300M 24-port SFP+ and 4-port SFP56 Switch (JL658A)	Aruba 6300M 48-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 Switch (JL659A)	Aruba 6300M 24-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 Switch (JL660A)	Aruba 6300M 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL661A)
Description	24x 1G/10G SFP+ ports 4x 1G/10G/25G¹ SFP ports 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	48x ports SmartRate 100M/1G/2.5G/5G BaseT Class 6 PoE ports supporting up to 60W per port 4x 1G/10G/25G¹ SFP ports Supports PoE Standards IEEE 802.3af, 802.3at and 802.3bt (up to 60W) 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	24x ports Smart Rate 100M/1G/2.5G/5G BaseT Class 6 PoE ports supporting up to 60W per port 4x 1G/10G/25G¹ SFP ports Supports PoE Standards IEEE 802.3af, 802.3at and 802.3bt (up to 60W) 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	48x ports 10/100/1000 BaseT PoE+ ports supporting up to 30W per port 4x 1G/10G/25G¹ SFP ports Supports PoE Standards IEEE 802.3af, 802.3at 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App
Power supplies	2 field-replaceable, hot-swappable power supply slots 1 minimum power supply required (ordered separately) Supports JL085A PSU	2 field-replaceable, hot-swappable power supply slots 1 minimum power supply required (ordered separately) Supported PSUs JL086A JL087A JL670A Max PoE Power: 2880W	2 field-replaceable, hot-swappable power supply slots 1 minimum power supply required (ordered separately) Supported PSUs JL086A JL087A JL670A Max PoE Power: 1440W	2 field-replaceable, hot-swappable power supply slots 1 minimum power supply required (ordered separately) Supported PSUs JL086A JL087A JL670A Max PoE Power: 1440W
Fans	Switch has two fan tray slots and comes with two fan trays installed. - Min 2 fan trays required. - Fan trays are field replaceable and hot-swappable. - Each fan tray contains two fans.	Switch has two fan tray slots and comes with two fan trays installed. - Min 2 fan trays required. - Fan trays are field replaceable and hot-swappable. - Each fan tray contains two fans.	Switch has two fan tray slots and comes with one fan tray installed. - Min 1 fan tray required. - Fan trays are field replaceable and hot-swappable. - Each fan tray contains two fans.	Switch has two fan tray slots and comes with one fan tray installed. - Min 1 fan tray required. - Fan trays are field replaceable and hot-swappable. - Each fan tray contains two fans.
Physical characteristics				
Dimensions	(H) 4.4 cm x (W) 44.2 cm x (D) 38.5 cm (1.73" x 17.4" x 15.2")	(H) 4.4 cm x (W) 44.2 cm x (D) 38.5 cm (1.73" x 17.4" x 15.2")	(H) 4.4 cm x (W) 44.2 cm x (D) 38.5 cm (1.73" x 17.4" x 15.2")	(H) 4.4 cm x (W) 44.2 cm x (D) 38.5 cm (1.73" x 17.4" x 15.2")
Configuration Weight	5.8 Kg (12.78 lbs)	6.71 kg (14.8 lbs)	6.06 (13.36 lbs)	5.72 kg (12.61 lbs)
Additional Specifications				
CPU	Quad Core ARM Cortex™ A72 @ 1.8GHz	Quad Core ARM Cortex™ A72 @ 1.8GHz	Quad Core ARM Cortex™ A72 @ 1.8GHz	Quad Core ARM Cortex™ A72 @ 1.8GHz
Memory and Flash	8 GB DDR4 32 GB eMMC	8 GB DDR4 32 GB eMMC	8 GB DDR4 32 GB eMMC	8 GB DDR4 32 GB eMMC
Packet Buffer	8 MB Packet Buffer Memory	8 MB Packet Buffer Memory	8 MB Packet Buffer Memory	8 MB Packet Buffer Memory

¹ 50G capability is for use with 50G DACs for both interconnect and VSF stacking. 50G transceiver capability enabled by future software release.



SPECIFICATIONS (CONTINUED)

	Aruba 6300M 24-port SFP+ and 4-port SFP56 Switch (JL658A)	Aruba 6300M 48-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 Switch (JL659A)	Aruba 6300M 24-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 Switch (JL660A)	Aruba 6300M 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL661A)
Performance				
System Switching Capacity	880 Gbps	880 Gbps	880 Gbps	880 Gbps
System Throughput Capacity	660 Mpps	660 Mpps	660 Mpps	660 Mpps
Model Switching Capacity	880 Gbps	880 Gbps	640 Gbps	496 Gbps
Model Throughput Capacity	654 Mpps	654 Mpps	476 Mpps	369 Mpps
Average Latency (LIFO-64-bytes packets)	1Gbps: 1.99µSec 10Gbps: 1.49µSec 25Gbps: 2.85µSec 50Gbps ¹ : 2.82µSec	1Gbps: 4.24µSec 10Gbps: 1.50µSec 25Gbps: 2.91µSec 50Gbps ¹ : 3.49µSec	1Gbps: 4.24µSec 10Gbps: 1.50µSec 25Gbps: 2.91µSec 50Gbps ¹ : 3.49µSec	1Gbps: 2.28µSec 10Gbps: 1.46µSec 25Gbps: 1.90µSec 50Gbps ¹ : 3.49µSec
Stack Size	10 members	10 members	10 members	10 members
Max. Stacking Distance	Up to 10 kms with long range transceivers	Up to 10 kms with long range transceivers	Up to 10 kms with long range transceivers	Up to 10 kms with long range transceivers
Stacking Bandwidth	200 Gbps	200 Gbps	200 Gbps	200 Gbps
Switched Virtual Interfaces (dual stack)	1,024	1,024	1,024	1,024
IPv4 Host Table (ARP)	49,152	49,152	49,152	49,152
IPv6 Host Table (ND)	49,152	49,152	49,152	49,152
IPv4 Unicast Routes	61,000	61,000	61,000	61,000
IPv6 Unicast Routes	61,000	61,000	61,000	61,000
IPv4 Multicast Routes	8,192	8,192	8,192	8,192
IPv6 Multicast Routes	8,192	8,192	8,192	8,192
MAC Table Capacity	32,768	32,768	32,768	32,768
IGMP Groups	8,192	8,192	8,192	8,192
MLD Groups	8,192	8,192	8,192	8,192
IPv4/IPv6/MAC ACL Entries (ingress)	20,480/5,120/20,480	20,480/5,120/20,480	20,480/5,120/20,480	20,480/5,120/20,480
IPv4/IPv6/MAC ACL Entries (egress)	8,192/2,048/8,192	8,192/2,048/8,192	8,192/2,048/8,192	8,192/2,048/8,192
VRF	256	256	256	256
Environment				
Operating Temperature	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft. Can support excursion to 131°F (55°C) for short periods ¹ of time. Operating temperature is reduced to 32°F (0°C) to 104°F (40°C) up to 5000ft when 10G SFP+ LR or ER Transceivers are installed.	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft. Can support excursion to 131°F (55°C) for short periods ¹ of time. Requires two fan trays to support excursion.	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft. Can support excursion to 131°F (55°C) for short periods ¹ of time.
Operating Relative Humidity	15% to 95% @ 104°F (40°C) non-condensing	15% to 95% @ 104°F (40°C) non-condensing	15% to 95% @ 104°F (40°C) non-condensing	15% to 95% @ 104°F (40°C) non-condensing

¹ 50G capability is for use with 50G DACs for both interconnect and VSF stacking. 50G transceiver capability enabled by future software release.



SPECIFICATIONS (CONTINUED)

	Aruba 6300M 24-port SFP+ and 4-port SFP56 Switch (JL658A)	Aruba 6300M 48-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 Switch (JL659A)	Aruba 6300M 24-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 Switch (JL660A)	Aruba 6300M 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL661A)
Environment (continued)				
Non-Operating	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft
Non-Operating Storage relative humidity	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing
Max Operating Altitude	10,000 feet (3.04 km) Max	10,000 feet (3.04 km) Max	10,000 feet (3.04 km) Max	10,000 feet (3.04 km) Max
Max non-operating Altitude	15,000 feet (4.6 km) Max	15,000 feet (4.6 km) Max	15,000 feet (4.6 km) Max	15,000 feet (4.6 km) Max
Acoustic	Sound Power, L_{WAd} = 4.9 Bel Sound Pressure, L_{pAm} (Bystander) = 31.0 dB	Sound Power, L_{WAd} = 4.8 Bel Sound Pressure, L_{pAm} (Bystander) = 30.6 dB	Sound Power, L_{WAd} = 5.2 Bel Sound Pressure, L_{pAm} (Bystander) = 34.2 dB	Sound Power, L_{WAd} = 4.7 Bel Sound Pressure, L_{pAm} (Bystander) = 29.8 dB
Primary Airflow	Front and side to back	Front and side to back	Front and side to back	Front and side to back
Electrical Characteristics				
Frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
AC Voltage	JL085A PSU: 100V-240V	JL670A PSU: 110V-120V/208V-240V JL086A PSU: 100V-240V JL087A PSU: 110V-240V	JL670A PSU: 110V-120V/208V-240V JL086A PSU: 100V-240V JL087A PSU: 110V-240V	JL670A PSU: 110V-120V/208V-240V JL086A PSU: 100V-240V JL087A PSU: 110V-240V
Current (for voltages listed above)	JL085A PSU: 3A/1.2A	JL670A PSU: 11A/8A JL086A PSU: 8A/3.5A JL087A PSU: 12A/5A	JL670A PSU: 11A/8A JL086A PSU: 8A/3.5A JL087A PSU: 12A/5A	JL670A PSU: 11A/8A JL086A PSU: 8A/3.5A JL087A PSU: 12A/5A
Power Consumption (230VAC)	Hibernation (0 rpm fan): 9W Idle: 51W 100% Traffic Rate: 85W	With JL086A PSU: Hibernation (0 rpm fan): 24W Idle: 133W 100% Traffic Rate: 199W With JL087A PSU: Hibernation (0 rpm fan): 22W Idle: 138W 100% Traffic Rate: 193W With JL670A PSU: Hibernation (0 rpm fan): 21W Idle: 140W 100% Traffic Rate: 201W	With JL086A PSU: Hibernation (0 rpm fan): 24W Idle: 93W 100% Traffic Rate: 137W With JL087A PSU: Hibernation (0 rpm fan): 22W Idle: 91W 100% Traffic Rate: 131W With JL670A PSU: Hibernation (0 rpm fan): 21W Idle: 98W 100% Traffic Rate: 139W	With JL086A PSU: Hibernation (0 rpm fan): 18W Idle: 70W 100% Traffic Rate: 90W With JL087A PSU: Hibernation (0 rpm fan): 16W Idle: 71W 100% Traffic Rate: 88W With JL670A PSU: Hibernation (0 rpm fan): 16W Idle: 73W 100% Traffic Rate: 96W
Safety				
	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950-1:2005 w/all known National Deviations	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950-1:2005 w/all known National Deviations	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950-1:2005 w/all known National Deviations	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950-1:2005 w/all known National Deviations



SPECIFICATIONS (CONTINUED)

	Aruba 6300M 24-port SFP+ and 4-port SFP56 Switch (JL658A)	Aruba 6300M 48-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 Switch (JL659A)	Aruba 6300M 24-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 Switch (JL660A)	Aruba 6300M 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL661A)
Emissions				
	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010
Lasers				
	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)
Immunity				
Generic	CISPR 24 / CISPR 35	CISPR 24 / CISPR 35	CISPR 24 / CISPR 35	CISPR 24 / CISPR 35
EN	EN 55024:2010 / EN 55035:2017	EN 55024:2010 / EN 55035:2017	EN 55024:2010 / EN 55035:2017	EN 55024:2010 / EN 55035:2017
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11
Harmonics	IEC 61000-3-2, EN 61000-3-2	IEC 61000-3-2, EN 61000-3-2	IEC 61000-3-2, EN 61000-3-2	IEC 61000-3-2, EN 61000-3-2
Flicker	IEC 61000-3-3, EN 61000-3-3	IEC 61000-3-3, EN 61000-3-3	IEC 61000-3-3, EN 61000-3-3	IEC 61000-3-3, EN 61000-3-3
Mounting and Enclosure				
	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.



SPECIFICATIONS (CONTINUED)

	Aruba 6300M 24-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL662A)	Aruba 6300M 48-port 1GbE and 4-port SFP56 Switch (JL663A)	Aruba 6300M 24-port 1GbE and 4-port SFP56 Switch (JL664A)	Aruba 6300M 48-port 1GbE and 4-port SFP56 Power-to-Port 2 Fan Trays 1 PSU Bundle (JL762A)
Description	24x ports 10/100/1000 BaseT PoE+ ports supporting up to 30W per port 1G/10G/25G ¹ SFP ports Supports PoE Standards IEEE 802.3af, 802.3at 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	48x ports 10/100/1000 BaseT ports 1G/10G/25G ¹ SFP ports 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	24x ports 10/100/1000 BaseT ports 1G/10G/25G ¹ SFP ports 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	48x ports 10/100/1000 BaseT ports 1G/10G/25G ¹ SFP ports 1x USB-C Console Port 1x OOBM 1x USB Type A Host port 1x Bluetooth dongle to be used with AOS-CX Mobile App
Power supplies	2 field-replaceable, hot-swappable power supply slots 1 minimum power supply required (ordered separately) Supported PSUs JL086A JL087A JL670A Max PoE Power: 720W	2 field-replaceable, hot-swappable power supply slots 1 minimum power supply required (ordered separately) Supports JL085A PSU	2 field-replaceable, hot-swappable power supply slots 1 minimum power supply required (ordered separately) Supports JL085A PSU	2 Field-replacable, hot-swappable power-supply slots and comes with 1 Pwr2Prt power-supply pre-installed Additional Pwr2Prt power-supply can be ordered separately Supports JL760A Pwr2Prt power-supply only
Fans	Switch has two fan tray slots and comes with one fan tray installed. • Min 1 fan tray required. Optional second fan tray ordered separately. • Fan trays are field replaceable and hot-swappable. • Each fan tray contains two fans.	Switch has two fan tray slots and comes with one fan tray installed. • Min 1 fan tray required. Optional second fan tray ordered separately. • Fan trays are field replaceable and hot-swappable. • Each fan tray contains two fans.	Switch has two fan tray slots and comes with one fan tray installed. • Min 1 fan tray required. Optional second fan tray ordered separately. • Fan trays are field replaceable and hot-swappable. • Each fan tray contains two fans.	Switch has two fan tray slots and comes with two fan trays installed. • Min 2 fan trays required. • Fan trays are field replaceable and hot-swappable. • Each fan tray contains two fans. • Supports JL761A Pwr2Prt Fan Tray only.
Physical characteristics				
Dimensions	(H) 4.4 cm x (W) 44.2 cm x (D) 38.5 cm (1.73" x 17.4" x 15.2")	(H) 4.4 cm x (W) 44.2 cm x (D) 38.5 cm (1.73" x 17.4" x 15.2")	(H) 4.4 cm x (W) 44.2 cm x (D) 38.5 cm (1.73" x 17.4" x 15.2")	(H) 4.4 cm (W) 44.2 cm (D) 38.5 cm (1.73" x 17.4" x 15.2")
Configuration Weight	5.55 kg (12.23 lbs)	5.51 kg (12.14 lbs)	5.43 kg (11.97 lbs)	1PSU: 5.7 kg (12.5 lbs) 2PSU: 6.27kg (13.8 lbs)
Additional Specifications				
CPU	Quad Core ARM Cortex™ A72 @ 1.8GHz	Quad Core ARM Cortex™ A72 @ 1.8GHz	Quad Core ARM Cortex™ A72 @ 1.8GHz	Quad Core ARM Cortex™ A72 @ 1.8GHz
Memory and Flash	8 GB DDR4 32 GB eMMC	8 GB DDR4 32 GB eMMC	8 GB DDR4 32 GB eMMC	8 GBytes DDR4 32 GBytes eMMC
Packet Buffer	8 MB Packet Buffer Memory	8 MB Packet Buffer Memory	8 MB Packet Buffer Memory	8 MB Shared Packet Buffer Memory



SPECIFICATIONS (CONTINUED)

	Aruba 6300M 24-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL662A)	Aruba 6300M 48-port 1GbE and 4-port SFP56 Switch (JL663A)	Aruba 6300M 24-port 1GbE and 4-port SFP56 Switch (JL664A)	Aruba 6300M 48-port 1GbE and 4-port SFP56 Power-to-Port 2 Fan Trays 1 PSU Bundle (JL762A)
Performance				
System Switching Capacity	880 Gbps	880 Gbps	880 Gbps	880 Gbps
System Throughput Capacity	660 Mpps	660 Mpps	660 Mpps	660 Mpps
Model Switching Capacity	448 Gbps	496 Gbps	448 Gbps	496 Gbps
Model Throughput Capacity	334 Mpps	369 Mpps	334 Mpps	369 Mpps
Average Latency (LIFO-64-bytes packets)	1Gbps: 2.28µSec 10Gbps: 1.46µSec 25Gbps: 1.90µSec 50Gbps ¹ : 3.49µSec	1Gbps: 2.28µSec 10Gbps: 1.46µSec 25Gbps: 1.90µSec 50Gbps ¹ : 3.49µSec	1Gbps: 2.28µSec 10Gbps: 1.46µSec 25Gbps: 1.90µSec 50Gbps ¹ : 3.49µSec	1Gbps: 2.28µSec 10Gbps: 1.46µSec 25Gbps: 1.90µSec 50Gbps ¹ : 3.49µSec
Stack Size	10 members	10 members	10 members	10 members
Max. Stacking Distance	Up to 10 kms with long range transceivers	Up to 10 kms with long range transceivers	Up to 10 kms with long range transceivers	Up to 10 kms with long range transceivers
Stacking Bandwidth	200 Gbps	200 Gbps	200 Gbps	200 Gbps
Switched Virtual Interfaces (dual stack)	1,024	1,024	1,024	1,024
IPv4 Host Table (ARP)	49,152	49,152	49,152	49,152
IPv6 Host Table (ND)	49,152	49,152	49,152	49,152
IPv4 Unicast Routes	61,000	61,000	61,000	61,000
IPv6 Unicast Routes	61,000	61,000	61,000	61,000
IPv4 Multicast Routes	8,192	8,192	8,192	8,192
IPv6 Multicast Routes	8,192	8,192	8,192	8,192
MAC Table Capacity	32,768	32,768	32,768	32,768
IGMP Groups	8,192	8,192	8,192	8,192
MLD Groups	8,192	8,192	8,192	8,192
IPv4/IPv6/MAC ACL Entries (ingress)	20,480/5,120/20,480	20,480/5,120/20,480	20,480/5,120/20,480	20,480/5,120/20,480
IPv4/IPv6/MAC ACL Entries (egress)	8,192/2,048/8,192	8,192/2,048/8,192	8,192/2,048/8,192	8,192/2,048/8,192
VRF	256	256	256	256
Environment				
Operating Temperature	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft. Can support excursion to 131°F (55°C) for short periods ¹ of time.	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft. Can support excursion to 131°F (55°C) for short periods ¹ of time.	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft. Can support excursion to 131°F (55°C) for short periods ¹ of time.	32°F to 113°F (0°C to 45°C) upto 5000 ft derate -1°C for every 1000 ft from 5000 ft to 10000 ft
Operating Relative Humidity	15% to 95% @ 104°F (40°C) non-condensing	15% to 95% @ 104°F (40°C) non-condensing	15% to 95% @ 104°F (40°C) non-condensing	15% to 95% @ 104°F (40°C) non-condensing
Non-Operating	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft	-40°F to 158°F (-40°C to 70°C) up to 15000 ft
Non-Operating Storage relative humidity	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing

¹ 50G capability is for use with 50G DACs for both interconnect and VSF stacking. 50G transceiver capability enabled by future software release.



SPECIFICATIONS (CONTINUED)

	Aruba 6300M 24-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL662A)	Aruba 6300M 48-port 1GbE and 4-port SFP56 Switch (JL663A)	Aruba 6300M 24-port 1GbE and 4-port SFP56 Switch (JL664A)	Aruba 6300M 48-port 1GbE and 4-port SFP56 Power-to-Port 2 Fan Trays 1 PSU Bundle (JL762A)
Environment (continued)				
Max Operating Altitude	10,000 feet (3.04 km) Max	10,000 feet (3.04 km) Max	10,000 feet (3.04 km) Max	10000 feet (3.04 km) Max
Max non-operating Altitude	15,000 feet (4.6 km) Max	15,000 feet (4.6 km) Max	15,000 feet (4.6 km) Max	15000 feet (4.6 km) Max
Acoustic	Sound Power, L _{WAd} = 4.7 Bel Sound Pressure, L _{pAm} (Bystander) = 29.4 dB	Sound Power, L _{WAd} = 4.6 Bel Sound Pressure, L _{pAm} (Bystander) = 28.7 dB	Sound Power, L _{WAd} = 4.6 Bel Sound Pressure, L _{pAm} (Bystander) = 28.6 dB	Sound Power, L _{WAd} = 5.0 Bel Sound Pressure, L _{pAm} (Bystander) = 32.5 dB with 1 x JL760A PSU
Primary Airflow	Front and side to back	Front and side to back	Front and side to back	Back to Front and Side
Electrical Characteristics				
Frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
AC Voltage	JL670A PSU: 110V-120V/208V-240V JL086A PSU: 100V-240V JL087A PSU: 110V-240V	JL085A PSU: 100V-240V	JL085A PSU: 100V-240V	JL760A PSU: 100V-240V
Current (for voltages listed above)	JL670A PSU: 11A/8A JL086A PSU: 8A/3.5A JL087A PSU: 12A/5A	JL085A PSU: 3A/1.2A	JL085A PSU: 3A/1.2A	JL760A PSU: 3A-1.2A
80plus.org certificaion				TBA for JL760A PS.
Power Consumption (230VAC)	With JL086A PSU: Hibernation (0 rpm fan): 20W Idle: 60W 100% Traffic Rate: 76W With JL087A PSU: Hibernation (0 rpm fan): 17W Idle: 59W 100% Traffic Rate: 74W With JL670A PSU: Hibernation (0 rpm fan): 16W Idle: 62W 100% Traffic Rate: 81W	Hibernation (0 rpm fan): 9W Idle: 56W 100% Traffic Rate: 75W	Hibernation (0 rpm fan): 9W Idle: 49W 100% Traffic Rate: 64W	Hibernation (0rpm fan): 9W Idle: 56W 100% Traffic Rate: 75W
Safety				
	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950-1:2005 w/all known National Deviations	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950-1:2005 w/all known National Deviations	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950-1:2005 w/all known National Deviations	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 EN 62368-1:2014 +A11:2017 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950-1:2005 w/all known National Deviations IEC 62368-1:2014 2nd Ed. Taiwan: CNS-14336-1



SPECIFICATIONS (CONTINUED)

	Aruba 6300M 24-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL662A)	Aruba 6300M 48-port 1GbE and 4-port SFP56 Switch (JL663A)	Aruba 6300M 24-port 1GbE and 4-port SFP56 Switch (JL664A)	Aruba 6300M 48-port 1GbE and 4-port SFP56 Power-to-Port 2 Fan Trays 1 PSU Bundle (JL762A)
Emissions				
	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010	Europe: EN 55032:2015 +AC:2016, Class A EN 55035:2017 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC 47 CFR part 15B, Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 32 Ed 2.0: 2015 + COR1:2016, Class A CISPR 35:2016
Lasers				
	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)
Immunity				
Generic	CISPR 24 / CISPR 35	CISPR 24 / CISPR 35	CISPR 24 / CISPR 35	CISPR 35
EN	EN 55024:2010 / EN 55035:2017	EN 55024:2010 / EN 55035:2017	EN 55024:2010 / EN 55035:2017	EN 55035:2017
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11
Harmonics	IEC 61000-3-2, EN 61000-3-2	IEC 61000-3-2, EN 61000-3-2	IEC 61000-3-2, EN 61000-3-2	IEC 61000-3-2, EN 61000-3-2
Flicker	IEC 61000-3-3, EN 61000-3-3	IEC 61000-3-3, EN 61000-3-3	IEC 61000-3-3, EN 61000-3-3	IEC 61000-3-3, EN 61000-3-3
Mounting and Enclosure				
	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.



SPECIFICATIONS

	Aruba 6300F 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL665A)	Aruba 6300F 24-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL666A)	Aruba 6300F 48-port 1GbE and 4-port SFP56 Switch (JL667A)	Aruba 6300F 24-port 1GbE and 4-port SFP56 Switch (JL668A)
Description	48x ports 10/100/1000BaseT PoE+ Ports supporting up to 30W per port 1G/10G/25G ¹ SFP ports Supports PoE Standards IEEE 802.3af, 802.3at 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	24x ports 10/100/1000BaseT Ports supporting up to 30W per port 1G/10G/25G ¹ SFP ports 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	48x ports 10/100/1000BaseT Ports 1G/10G/25G ¹ SFP ports 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App	24x ports 10/100/1000BaseT Ports 1G/10G/25G ¹ SFP ports 1x USB-C Console Port 1x OOBM port 1x USB Type A Host port 1x Bluetooth dongle to be used with CX Mobile App
Power supplies	Internal (fixed) power supply (950W) Max PoE Power: 720W	Internal (fixed) power supply (950W) Max PoE Power: 370W	Internal (fixed) power supply (200W)	Internal (fixed) power supply (200W)
Fans	Fixed fans	Fixed fans	Fixed fans	Fixed fans
Physical characteristics				
Dimensions	(H) 4.39 cm x (W) 44.2 cm x (D) 32.7 cm (1.73" x 17.4" x 12.9")	(H) 4.39 cm x (W) 44.2 cm x (D) 32.7 cm (1.73" x 17.4" x 12.9")	(H) 4.39 cm x (W) 44.2 cm x (D) 32.7 cm (1.73" x 17.4" x 12.9")	(H) 4.39 cm x (W) 44.2 cm x (D) 32.7 cm (1.73" x 17.4" x 12.9")
Configuration Weight	5.10 kg (11.24 lbs)	4.95 kg (10.91 lbs)	4.46 kg (9.83 lbs)	4.36 kg (9.61 lbs)
Additional Specifications				
CPU	Quad Core ARM Cortex™ A72 @ 1.8GHz	Quad Core ARM Cortex™ A72 @ 1.8GHz	Quad Core ARM Cortex™ A72 @ 1.8GHz	Quad Core ARM Cortex™ A72 @ 1.8GHz
Memory and Flash	8 GB DDR4 32 GB eMMC	8 GB DDR4 32 GB eMMC	8 GB DDR4 32 GB eMMC	8 GB DDR4 32 GB eMMC
Packet Buffer	8 MB Packet Buffer Memory	8 MB Packet Buffer Memory	8 MB Packet Buffer Memory	8 MB Packet Buffer Memory

¹ 50G capability is for use with 50G DACs for both interconnect and VSF stacking. 50G transceiver capability enabled by future software release.



SPECIFICATIONS

	Aruba 6300F 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL665A)	Aruba 6300F 24-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL666A)	Aruba 6300F 48-port 1GbE and 4-port SFP56 Switch (JL667A)	Aruba 6300F 24-port 1GbE and 4-port SFP56 Switch (JL668A)
Performance				
System Switching Capacity	880 Gbps	880 Gbps	880 Gbps	880 Gbps
System Throughput Capacity	660 Mpps	660 Mpps	660 Mpps	660 Mpps
Model Switching Capacity	496 Gbps	448 Gbps	496 Gbps	448 Gbps
Model Throughput Capacity	369 Mpps	334 Mpps	369 Mpps	334 Mpps
Average Latency (LIFO-64-bytes packets)	1Gbps: 2.28µSec 10Gbps: 1.46µSec 25Gbps: 1.90µSec 50Gbps ¹ : 3.49µSec	1Gbps: 2.28µSec 10Gbps: 1.46µSec 25Gbps: 1.90µSec 50Gbps ¹ : 3.49µSec	1Gbps: 2.28µSec 10Gbps: 1.46µSec 25Gbps: 1.90µSec 50Gbps ¹ : 3.49µSec	1Gbps: 2.28µSec 10Gbps: 1.46µSec 25Gbps: 1.90µSec 50Gbps ¹ : 3.49µSec
Stack Size	10 members	10 members	10 members	10 members
Max. Stacking Distance	Up to 10 kms with long range transceivers	Up to 10 kms with long range transceivers	Up to 10 kms with long range transceivers	Up to 10 kms with long range transceivers
Stacking Bandwidth	200 Gbps	200 Gbps	200 Gbps	200 Gbps
Switched Virtual Interfaces (dual stack)	1,024	1,024	1,024	1,024
IPv4 Host Table (ARP)	49,152	49,152	49,152	49,152
IPv6 Host Table (ND)	49,152	49,152	49,152	49,152
IPv4 Unicast Routes	61,000	61,000	61,000	61,000
IPv6 Unicast Routes	61,000	61,000	61,000	61,000
IPv4 Multicast Routes	8,192	8,192	8,192	8,192
IPv6 Multicast Routes	8,192	8,192	8,192	8,192
MAC Table Capacity	32,768	32,768	32,768	32,768
IGMP Groups	8,192	8,192	8,192	8,192
MLD Groups	8,192	8,192	8,192	8,192
IPv4/IPv6/MAC ACL Entries (ingress)	20,480/5,120/20,480	20,480/5,120/20,480	20,480/5,120/20,480	20,480/5,120/20,480
IPv4/IPv6/MAC ACL Entries (egress)	8,192/2,048/8,192	8,192/2,048/8,192	8,192/2,048/8,192	8,192/2,048/8,192
VRF	256	256	256	256

¹ 50G capability is for use with 50G DACs for both interconnect and VSF stacking. 50G transceiver capability enabled by future software release.



SPECIFICATIONS (CONTINUED)

	Aruba 6300F 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL665A)	Aruba 6300F 24-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL666A)	Aruba 6300F 48-port 1GbE and 4-port SFP56 Switch (JL667A)	Aruba 6300F 24-port 1GbE and 4-port SFP56 Switch (JL668A)
Environment				
Operating Temperature	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft Can support excursion to 131°F (55°C) for short periods ¹ of time.	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft. Can support excursion to 131°F (55°C) for short periods ¹ of time.	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft. Can support excursion to 131°F (55°C) for short periods ¹ of time.	32°F to 113°F (0°C to 45°C) up to 5,000 ft. Derate -1 degree C for every 1,000 ft from 5,000 ft to 10,000 ft. Can support excursion to 131°F (55°C) for short periods ¹ of time.
Operating Relative Humidity	15% to 95% @ 104°F (40°C) non-condensing	15% to 95% @ 104°F (40°C) non-condensing	15% to 95% @ 104°F (40°C) non-condensing	15% to 95% @ 104°F (40°C) non-condensing
Non-Operating	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft	-40°F to 158°F (-40°C to 70°C) up to 15,000 ft
Non-Operating Storage relative humidity	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing	15% to 90% @ 149°F (65°C) non-condensing
Max Operating Altitude	10,000 feet (3.04 km) Max	10,000 feet (3.04 km) Max	10,000 feet (3.04 km) Max	10,000 feet (3.04 km) Max
Max non-operating Altitude	15,000 feet (4.6 km) Max	15,000 feet (4.6 km) Max	15,000 feet (4.6 km) Max	15,000 feet (4.6 km) Max
Acoustic	Sound Power, L _{WAd} = 5.2 Bel Sound Pressure, L _{pAm} (Bystander) = 34.9 dB	Sound Power, L _{WAd} = 5.0 Bel Sound Pressure, L _{pAm} (Bystander) = 32.3 dB	Sound Power, L _{WAd} = 4.9 Bel Sound Pressure, L _{pAm} (Bystander) = 31.5 dB	Sound Power, L _{WAd} = 4.9 Bel Sound Pressure, L _{pAm} (Bystander) = 31.6 dB
Primary Airflow	Front and side to back	Front and side to back	Front and side to back	Front and side to back
Electrical Characteristics				
Frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
AC Voltage	Fixed PSU: 100V-120V/200V-240V	Fixed PSU: 100V-120V/200V-240V	Fixed PSU: 100V-120V/200V-240V	Fixed PSU: 100V-120V/200V-240V
Current (for voltages listed above)	Fixed PSU: 11A/6A	Fixed PSU: 11A/6A	Fixed PSU: 2.5A/1.4A	Fixed PSU: 2.5A/1.4A
80plus.org certification				
Power Consumption (230VAC)	Hibernation (0 rpm fan): 12W Idle: 63W 100% Traffic Rate: 86W	Hibernation (0 rpm fan): 12W Idle: 52W 100% Traffic Rate: 67W	Hibernation (0 rpm fan): 6W Idle: 52W 100% Traffic Rate: 74W	Hibernation (0 rpm fan): 6W Idle: 49W 100% Traffic Rate: 63W
Safety				
	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950- 1:2005 w/all known National Deviations	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950- 1:2005 w/all known National Deviations	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950- 1:2005 w/all known National Deviations	Europe: EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011 + A2:2013 US: UL 60950-1 2nd Ed. Canada: CAN/CSA-C22.2 No. 60950-1-07 Worldwide: IEC 60950- 1:2005 w/all known National Deviations



SPECIFICATIONS (CONTINUED)

	Aruba 6300F 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL665A)	Aruba 6300F 24-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL666A)	Aruba 6300F 48-port 1GbE and 4-port SFP56 Switch (JL667A)	Aruba 6300F 24-port 1GbE and 4-port SFP56 Switch (JL668A)
Emissions				
	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010	Europe: EN 55022:2010, Class A EN 55032:2012, Class A EN 55024:2010 EN 61000-3-2:2014 EN 61000-3-3:2013 US: FCC part 15 Class A Canada: ICES-003 Class A Worldwide: VCCI Class A CISPR 22 Class A CISPR 32 Class A CISPR 24:2010
Lasers				
	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)	EN 60825-1:2007 / IEC 60825-1:2007 Class 1 Class 1 Laser Products / Laser Klasse 1 (Applicable for accessories - Optical Transceivers only)
Immunity				
Generic	CISPR 24 / CISPR 35	CISPR 24 / CISPR 35	CISPR 24 / CISPR 35	CISPR 24 / CISPR 35
EN	EN 55024:2010 / EN 55035:2017	EN 55024:2010 / EN 55035:2017	EN 55024:2010 / EN 55035:2017	EN 55024:2010 / EN 55035:2017
ESD	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2	IEC 61000-4-2
Radiated	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3	IEC 61000-4-3
EFT/Burst	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4	IEC 61000-4-4
Surge	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5	IEC 61000-4-5
Conducted	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6	IEC 61000-4-6
Power frequency magnetic field	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8	IEC 61000-4-8
Voltage dips and interruptions	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11	IEC 61000-4-11
Harmonics	IEC 61000-3-2, EN 61000-3-2	IEC 61000-3-2, EN 61000-3-2	IEC 61000-3-2, EN 61000-3-2	IEC 61000-3-2, EN 61000-3-2
Flicker	IEC 61000-3-3, EN 61000-3-3	IEC 61000-3-3, EN 61000-3-3	IEC 61000-3-3, EN 61000-3-3	IEC 61000-3-3, EN 61000-3-3
Mounting and Enclosure				
	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.	Mounts in an EIA-standard 19 in. telco rack or equipment cabinet. Horizontal surface mounting only. 2-post rack kit included.



STANDARDS AND PROTOCOLS

- ANSI/TIA-1057 LLDP Media Endpoint Discovery (LLDP-MED)
- CPU DoS Protection
- Bootstrap Router (BSR) Mechanism for PIM, PIM WG
- draft-ietf-savi-mix
- IEEE 802.1AB-2005
- IEEE 802.1ak-2007
- IEEE 802.1AX-2008 Link Aggregation
- IEEE 802.1D MAC Bridges
- IEEE 802.1p Priority
- IEEE 802.1Q VLANs
- IEEE 802.1s Multiple Spanning Trees
- IEEE 802.1t-2001
- IEEE 802.1v VLAN classification by Protocol and Port
- IEEE 802.1w Rapid Reconfiguration of Spanning Tree
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)
- IEEE 802.3ae 10-Gigabit Ethernet
- IEEE 802.3af Power over Ethernet
- IEEE 802.3at Power over Ethernet
- IEEE 802.3bt Power over Ethernet
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- IEEE 802.3x Flow Control
- IEEE 802.3z 1000BASE-X
- RFC 1122 Requirements for Internet Hosts - Communications Layers
- RFC 1215 Convention for defining traps for use with the SNMP
- RFC 1256 ICMP Router Discovery Messages
- RFC 1350 TFTP Protocol (revision 2)
- RFC 1393 Traceroute Using an IP Option
- RFC 1403 BGP OSPF Interaction
- RFC 1519 CIDR
- RFC 1542 BOOTP Extensions
- RFC 1583 OSPF Version 2
- RFC 1591 Domain Name System Structure and Delegation
- RFC 1657 Definitions of Managed Objects for BGP-4 using SMIPv2
- RFC 1772 Application of the Border Gateway Protocol in the Internet
- RFC 1812 Requirements for IP Version 4 Router
- RFC 1918 Address Allocation for Private Internet
- RFC 1997 BGP Communities Attribute
- RFC 1998 An Application of the BGP Community Attribute in Multi-home Routing
- RFC 2131 DHCP
- RFC 2132 DHCP Options and BOOTP Vendor Extensions
- RFC 2236 IGMP
- RFC 2328 OSPF Version 2
- RFC 2375 IPv6 Multicast Address Assignments
- RFC 2385 Protection of BGP Sessions via the TCP MD5 Signature Option
- RFC 2401 Security Architecture for the Internet Protocol
- RFC 2402 IP Authentication Header
- RFC 2439 BGP Route Flap Damping
- RFC 2460 Internet Protocol, Version 6 (IPv6) Specification
- RFC 2464 Transmission of IPv6 over Ethernet Networks
- RFC 2545 Use of BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing
- RFC 2576 (Coexistence between SNMP V1, V2, V3)
- RFC 2579 (SMIPv2 Text Conventions)
- RFC 2580 (SMIPv2 Conformance)
- RFC 2710 Multicast Listener Discovery (MLD) for IPv6
- RFC 2711 IPv6 Router Alert Option
- RFC 2787 Definitions of Managed Objects for the Virtual Router Redundancy Protocol
- RFC 2918 Route Refresh Capability for BGP-4
- RFC 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations (Ping only)
- RFC 2934 Protocol Independent Multicast MIB for IPv4
- RFC 3019 MLDv1 MIB
- RFC 3046 DHCP Relay Agent Information Option
- RFC 3056 Connection of IPv6 Domains via IPv4 Clouds
- RFC 3065 Autonomous System Confederation for BGP
- RFC 3068 An Anycast prefix for 6to4 Relay Route
- RFC 3137 OSPF Stub Router Advertisement sFlow
- RFC 3376 IGMPv3
- RFC 3416 (SNMP Protocol Operations v2)
- RFC 3417 (SNMP Transport Mappings)
- RFC 3418 Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)
- RFC 3484 Default Address Selection for IPv6
- RFC 3509 Alternative Implementations of OSPF Area Border Routers
- RFC 3575 IANA Considerations for RADIUS
- RFC 3623 Graceful OSPF Restart
- RFC 3768 VRRP
- RFC 3810 Multicast Listener Discovery Version 2 (MLDv2) for IPv6
- RFC 3973 PIM Dense Mode
- RFC 4022 MIB for TCP
- RFC 4113 MIB for UDP
- RFC 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers



- RFC 4251 The Secure Shell (SSH) Protocol
- RFC 4252 SSHv6 Authentication
- RFC 4253 SSHv6 Transport Layer
- RFC 4254 SSHv6 Connection
- RFC 4271 A Border Gateway Protocol 4 (BGP-4)
- RFC 4273 Definitions of Managed Objects for BGP-4
- RFC 4291 IP Version 6 Addressing Architecture
- RFC 4292 IP Forwarding Table MIB
- RFC 4293 Management Information Base for the Internet Protocol (IP)
- RFC 4360 BGP Extended Communities Attribute
- RFC 4419 Key Exchange for SSH
- RFC 4443 ICMPv6
- RFC 4456 BGP Route Reflection: An Alternative to Full Mesh Internal BGP (IBGP)
- RFC 4486 Subcodes for BGP Cease Notification Message
- RFC 4541 IGMP & MLD Snooping Switch
- RFC 4552 Authentication/Confidentiality for OSPFv3
- RFC 4601 PIM Sparse Mode
- RFC 4675 RADIUS VLAN & Priority
- RFC 4724 Graceful Restart Mechanism for BGP
- RFC 4760 Multiprotocol Extensions for BGP-4
- RFC 4861 IPv6 Neighbor Discovery
- RFC 4862 IPv6 Stateless Address Auto-configuration
- RFC 4940 IANA Considerations for OSPF
- RFC 5065 Autonomous System Confederation for BGP
- RFC 5095 Deprecation of Type 0 Routing Headers in IPv6
- RFC 5187 OSPFv3 Graceful Restart
- RFC 5340 OSPFv3 for IPv6
- RFC 5424 Syslog Protocol
- RFC 5492 Capabilities Advertisement with BGP-4
- RFC 5519 Multicast Group Membership Discovery MIB (MLDv2 only)
- RFC 5701 IPv6 Address Specific BGP Extended Community Attribute
- RFC 5722 Handling of Overlapping IPv6 Fragments
- RFC 5798 VRRP (exclude Accept Mode and sub-sec timer)
- RFC 5880 Bidirectional Forwarding Detection
- RFC 5905 Network Time Protocol Version 4: Protocol and Algorithms Specification
- RFC 6620 FCFS SAVI
- RFC 6987 OSPF Stub Router Advertisement
- RFC 7047 The Open vSwitch Database Management Protocol
- RFC 7313 Enhanced Route Refresh Capability for BGP-4
- RFC 768 User Datagram Protocol
- RFC 783 TFTP Protocol (revision 2)

- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 813 Window and Acknowledgement Strategy in TCP
- RFC 815 IP datagram reassembly algorithms
- RFC 8201 Path MTU Discovery for IP version 6
- RFC 826 ARP
- RFC 879 TCP maximum segment size and related topics
- RFC 896 Congestion control in IP/TCP internetworks
- RFC 917 Internet subnets
- RFC 919 Broadcasting Internet Datagrams
- RFC 922 Broadcasting Internet Datagrams in the Presence of Subnets (IP_BROAD)
- RFC 925 Multi-LAN address resolution
- RFC 951 BOOTP
- RFC 1027 Proxy ARP
- SNMPv1/v2c/v3
- RFC 4861 IPv6 Neighbor Discovery
- RFC 4862 IPv6 Stateless Address Auto-configuration
- ITU-T Rec G.8032/Y.1344 Mar. 2010
- RFC 1757 Remote Network Monitoring Management Information Base
- 2.5G/5GBASE-T (IEEE 802.3bz-2016), 2.5G/5G NBASE-T
- 10GBASE-T (IEEE 802.3an-2006)
- 25-Gigabit Ethernet (IEEE 802.3by-2016, 802.3cc-2017)
- 50-Gigabit Ethernet (IEEE 802.3cd-2018)
- RFC 3101 OSPF Not-so-stubby-area option
- RFC 4750 OSPFv2 MIB partial support no SetMIB

ARUBA CX 6300 SWITCHES AND ACCESSORIES

Switch Models

- Aruba 6300M 24-port SFP+ and 4-port SFP56 Switch (JL658A)
- Aruba 6300M 48-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 Switch (JL659A)
- Aruba 6300M 24-port HPE Smart Rate 1/2.5/5GbE Class 6 PoE and 4-port SFP56 Switch (JL660A)
- Aruba 6300M 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL661A)
- Aruba 6300M 24-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL662A)
- Aruba 6300M 48-port 1GbE and 4-port SFP56 Switch (JL663A)
- Aruba 6300M 24-port 1GbE and 4-port SFP56 Switch (JL664A)
- Aruba 6300F 48-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL665A)



- Aruba 6300F 24-port 1GbE Class 4 PoE and 4-port SFP56 Switch (JL666A)
- Aruba 6300F 48-port 1GbE and 4-port SFP56 Switch (JL667A)
- Aruba 6300F 24-port 1GbE and 4-port SFP56 Switch (JL668A)
- Aruba 6300M 48-port 1GbE and 4-port SFP56 Power-to-Port 2 Fan Trays 1 PSU Bundle (JL762A)

Power Supplies

- Aruba X371 12VDC 250W 100-240VAC Power Supply (JL085A)
- Aruba X372 54VDC 680W 100-240VAC Power Supply (JL086A)
- Aruba X372 54VDC 1050W 110-240VAC Power Supply (JL087A)
- Aruba X372 54VDC 1600W 110-240VAC Power Supply (JL670A)
- Aruba X371 12VDC 250W 100-240VAC Power-to-Port Power Supply (JL760A)
- Aruba 6300M 250W 36-72VDC PSU (JL757A)
- Aruba 6300M 1050W 36-72VDC (JL758A)

Fan Tray

- Aruba 6300M Fan Tray (JL669A)
- Aruba 6300M Power-to-Port Fan Tray (JL761A)

Mounting Kit

- HPE X410 1U Universal 4-post Rack Mount Kit (J9583A)
- Aruba X414 1U Universal 4-post Rack Mounting Kit (J9583B)

Cables

- Aruba 10G SFP+ to SFP+ 1m Direct Attach Copper Cable (J9281D)
- Aruba 10G SFP+ to SFP+ 3m Direct Attach Copper Cable (J9283D)
- Aruba 25G SFP28 to SFP28 0.65m Direct Attach Copper Cable (JL487A)
- Aruba 25G SFP28 to SFP28 3m Direct Attach Copper Cable (JL488A)
- Aruba 25G SFP28 to SFP28 5m Direct Attach Copper Cable (JL489A)
- Aruba 50G SFP56 to SFP56 0.65m DAC Cable (R0M46A)¹

- Aruba 50G SFP56 to SFP56 3m DAC Cable (R0M47A)¹

Transceivers

- Aruba 100M SFP LC FX 2km MMF XCVR (J9054D)²
- Aruba 1G SFP LC SX 500m MMF Transceiver (J4858D)
- Aruba 1G SFP LC LX 10km SMF Transceiver (J4859D)
- Aruba 1G SFP LC LH 70km SMF Transceiver (J4860D)
- Aruba 1G SFP RJ45 T 100m Cat5e Transceiver (J8177D)
- Aruba 10G SFP+ LC SR 300m MMF Transceiver (J9150D)
- Aruba 10G SFP+ LC LR 10km SMF Transceiver (J9151E)
- Aruba 10G SFP+ LC ER 40km SMF Transceiver (J9153D)
- Aruba 10GBASE-T SFP+ RJ-45 30m Cat6A Transceiver (JL563A)
- Aruba 25G SFP28 LC SR 100m MMF Transceiver (JL484A)
- Aruba 25G SFP28 LC eSR 400m MMF Transceiver (JL485A)
- Aruba 25G SFP28 LC LR 10km SMF Transceiver (JL486A)

Software

- Aruba CX Mobile App <https://www.arubanetworks.com/products/networking/switches/cx-mobileapp/>
- Aruba NetEdit Single Node: 1 year (JL639AAE)
- Aruba NetEdit Single Node: 3 years (JL640AAE)

Aruba Central Foundation Licenses

- Aruba Central Switch 6300/38xx Foundation 1 year Subscription E-STU (Q9Y78AAE)
- Aruba Central Switch 6300/38xx Foundation 3 year Subscription E-STU (Q9Y79AAE)
- Aruba Central Switch 6300/38xx Foundation 5 year Subscription E-STU (Q9Y80AAE)
- Aruba Central Switch 6300/38xx Foundation 7 year Subscription E-STU (Q9Y81AAE)
- Aruba Central Switch 6300/38xx Foundation 10 year Subscription E-STU (R3K02AAE)
- Aruba Central On-Premises 63xx or 38xx Switch Foundation 1 year Subscription E-STU (R6U83AAE)
- Aruba Central On-Premises 63xx or 38xx Switch Foundation 3 year Subscription E-STU (R6U84AAE)
- Aruba Central On-Premises 63xx or 38xx Switch Foundation 5 year Subscription E-STU (R6U85AAE)
- Aruba Central On-Premises 63xx or 38xx Switch Foundation 7 year Subscription E-STU (R6U86AAE)
- Aruba Central On-Premises 63xx or 38xx Switch Foundation 10 year Subscription E-STU (R6U87AAE)

For details and complete listing of Aruba Central licensing options, please refer to the [Aruba Central Data Sheet](#).

¹ 50G capability is for use with 50G DACs for both interconnect and VSF stacking. 50G transceiver capability enabled by future software release.

² J9054D 100Mbps transceiver only supported in SFP+ ports on JL658A. 100Mbps transceivers are not supported in any SFP56 port on all models.



Support

- JL658A: 4 Hour Onsite 3 Year (HR4C9E)
- JL659A: 4 Hour Onsite 3 Year (HR4R3E)
- JL660A: 4 Hour Onsite 3 Year (HL5Z0E)
- JL661A: 4 Hour Onsite 3 Year (HR4Z8E)
- JL662A: 4 Hour Onsite 3 Year (HL6R3E)
- JL663A: 4 Hour Onsite 3 Year (HR5N2E)
- JL664A: 4 Hour Onsite 3 Year (HL7J3E)
- JL665A: 4 Hour Onsite 3 Year (HR5W0E)
- JL666A: 4 Hour Onsite 3 Year (HR6E5E)
- JL667A: 4 Hour Onsite 3 Year (HR6P0E)
- JL668A: 4 Hour Onsite 3 Year (HR6X5E)
- JL762A: 4 Hour Onsite 3 Year (HR5N2E)

For Aruba Central hardware only support, 24x7 TAC support, and many other support options, go to [Support Services Central SKU lookup tool](#).

DATA SHEET

ARUBA 500 SERIES WIRELESS ACCESS POINTS

Cost-effective Wi-Fi 6 (802.11ax) for medium-density indoor environments

These affordable Wi-Fi 6 access points provide high-performance connectivity for any organization experiencing growing numbers of mobile, IoT and mobility requirements. With a maximum real-world aggregate data rate of 1.49 Gbps (HE80/HE20), they deliver the speed and reliability needed for venues and workplaces such as schools, midsize offices and retailers.

INCREDIBLE EFFICIENCY

The 500 Series APs are also designed to optimize user experience by maximizing Wi-Fi efficiency and dramatically reducing airtime contention between clients.

Features include Orthogonal frequency-division multiple access (OFDMA), and cellular optimization. With up to 2 spatial streams (2SS) and 80MHz channel bandwidth (HE80), the 500 Series provides groundbreaking wireless capabilities for budget-conscious deployments.

Read the Multi-User 802.11ax [white paper](#) for further information.

Advantages of OFDMA

This capability allows Aruba's APs to handle multiple Wi-Fi 6 capable clients on each channel simultaneously, regardless of device or traffic type. Channel utilization is optimized by handling each transaction via smaller sub-carriers or resource units (RUs), which means that clients are sharing a channel and not competing for airtime and bandwidth.

Aruba Air Slice™ for Extended Application Assurance

Initially, APs in controller-less mode (Instant) can provide SLA-grade performance by allocating radio resources, such as time, frequency, and spatial streams, to specific traffic



KEY FEATURES

- 1.49 Gbps maximum real-world speed (HE80/HE20)
- WPA3 and Enhanced Open security
- Built-in technology that resolves sticky client issues for Wi-Fi 6 and Wi-Fi 5 devices
- OFDMA for enhanced multi-user efficiency
- IoT-ready Bluetooth 5 and Zigbee support

types. By combining Aruba's **Policy Enforcement Firewall** (PEF) and Layer 7 deep packet inspection (DPI) to identify user roles and applications, the APs will dynamically allocate the bandwidth needed. Non-Wi-Fi 6 clients can also benefit.

Air Slice™ for APs uses Aruba Central for management. Controller-based APs will be supported in a future software release.



Wi-Fi 6 aware client optimization

Aruba's patented AI-powered ClientMatch technology eliminates sticky client issues by placing Wi-Fi 6 capable devices on the best available AP. Session metrics are used to steer mobile devices to the best AP based on available bandwidth, types of applications being used and traffic type – even as users roam.

Aruba Advanced Cellular Coexistence (ACC)

This feature uses built-in filtering to automatically minimize the impact of interference from cellular networks, distributed antenna systems (DAS), and commercial small cell or femtocell equipment.

Intelligent Power Monitoring (IPM)

Aruba APs continuously monitor and report hardware energy consumption. They can also be configured to enable or disable capabilities based on available PoE power – ideal when wired switches have exhausted their power budget.

Green AP energy efficiency

Aruba Wi-Fi 6 APs utilize analytics from NetInsight to automatically transition in and out of a sleep mode based on client density. Learn more in the [Green AP At-A-Glance](#).

IOT PLATFORM CAPABILITIES

Like all Aruba Wi-Fi 6 APs, the 500 Series includes an integrated Bluetooth 5 and 802.15.4 radio (for Zigbee support) to simplify deploying and managing IoT-based location services, asset tracking services, security solutions and IoT sensors. This allows organizations to leverage the 500 Series as an IoT platform, which eliminates the need for an overlay infrastructure and additional IT resources.

Target Wake Time (TWT)

Ideal for IoTs that communicate infrequently, TWT establishes a schedule for when clients need to communicate with an AP. This helps improve client power savings and reduces airtime contention with other clients.

ARUBA SECURE INFRASTRUCTURE

The Aruba 500 Series includes components of Aruba's 360 Secure Fabric to help protect user authentication and wireless traffic. Select capabilities include:

WPA3 and Enhanced Open

Support for stronger encryption and authentication is provided via the latest version of WPA for enterprise protected networks.

Enhanced Open offers seamless new protection for users connecting to open networks where each session is automatically encrypted to protect user passwords and data on guest networks.

WPA2-MPSK

MPSK enables simpler passkey management for WPA2 devices – should the Wi-Fi password on one device or device type change, no additional changes are needed for other devices. Requires ClearPass Policy Manager.

VPN Tunnels

In Remote AP (RAP) and IAP-VPN deployments, the Aruba 500 Series can be used to establish a secure SSL/IPSec VPN tunnel to a Mobility Controller that is acting as a VPN concentrator.

Trusted Platform Module (TPM)

For enhanced device assurance, all Aruba APs have an installed TPM for secure storage of credentials and keys, and boot code.

SIMPLE AND SECURE ACCESS

To simplify policy enforcement, the Aruba 500 Series uses Aruba's policy enforcement firewall (PEF) feature to encapsulate all traffic from the AP to the Mobility Controller (or Gateway) for end-to-end encryption and inspection. Policies are applied based on user role, device type, applications, and location. This reduces the manual configuration of SSIDs, VLANs and ACLs. PEF also serves as the underlying technology for Aruba [Dynamic Segmentation](#).

HIGH-DENSITY CONNECTIVITY

Each 500 Series AP provides connectivity for a maximum of 256 associated clients per radio (512 in total). In real-world scenarios, the maximum recommended client density is dependent on environmental conditions.



FLEXIBLE OPERATION AND MANAGEMENT

A unique feature of Aruba APs is the ability to operate in either controllerless (Instant) or controller-based mode.

Controller-less (Instant) mode

In controllerless mode, one AP serves as a virtual controller for the entire network. Learn more about Instant mode in [this technology brief](#).

Mobility Controller mode

For optimized network performance, roaming and security, APs tunnel all traffic to a mobility controller for centrally managed traffic forwarding and segmentation, data encryption, and policy enforcement. Learn more in the [ArubaOS datasheet](#).

Management options

Available management solutions include Aruba Central (cloud-managed) or Aruba AirWave – a multi-vendor on-premises management solution.

For large installations across multiple sites, APs can be factory-shipped and can be activated with Zero Touch Provisioning through Aruba Central or AirWave. This reduces deployment time, centralizes configuration, and helps manage inventory.

ADDITIONAL WI-FI FEATURES

Each AP also includes the following standards-based technologies:

Transmit beamforming (TxBF)	Increased signal reliability and range
Passpoint Wi-Fi (Release 2) (Hotspot 2.0)	Seamless cellular-to-Wi-Fi carryover for guests
Dynamic Frequency Selection (DFS)	Optimized use of available RF spectrum
Maximum Ratio Combining (MRC)	Improved receiver performance
Cyclic Delay/Shift Diversity (CDD/CSD)	Greater downlink RF performance
Space-Time Block Coding	Increased range and improved reception
Low-Density Parity Check (LDPC)	High-efficiency error correction for increased throughput



TECHNICAL SPECIFICATIONS

Model	AP-504	AP-505
AP type	Indoor, dual radio, 5GHz and 2.4GHz 802.11ax 2x2 MIMO	
5GHz radio	Two spatial stream Single User (SU) MIMO for up to 1.2Gbps wireless data rate with 2SS HE80 802.11ax client devices	
2.4GHz radio	Two spatial stream Single User (SU) MIMO for up to 574Mbps (287 Mbps) wireless data rate with 2SS HE40 (HE20) 802.11ax client devices	
Maximum number of associated client devices	Up to 256 associated client devices per radio	
Maximum number of BSSIDs	16 BSSIDs per radio	
Supported frequency bands (country-specific restrictions apply)	• 2.400 to 2.4835GHz • 5.150 to 5.250GHz • 5.250 to 5.350GHz • 5.470 to 5.725GHz • 5.725 to 5.850GHz	
Available channels	Dependent on configured regulatory domain	
Supported radio technologies	• 802.11b: Direct-sequence spread-spectrum (DSSS) • 802.11a/g/n/ac: Orthogonal frequency-division multiplexing (OFDM) • 802.11ax: Orthogonal frequency-division multiple access (OFDMA) with up to 8 resource units	
Supported modulation types:	• 802.11b: BPSK, QPSK, CCK • 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM (proprietary extension) • 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM (proprietary extension) • 802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM	
802.11n high-throughput (HT) support:	HT20/40	
802.11ac very high throughput (VHT) support:	VHT20/40/80	
802.11ax high efficiency (HE) support:	HE20/40/80	
Supported data rates (Mbps):	• 802.11b: 1, 2, 5.5, 11 • 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 • 802.11n: 6.5 to 300 (MCS0 to MCS15, HT20 to HT40), 400 with 256-QAM • 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 to 2, VHT20 to VHT80), 1,083 with 1024-QAM • 802.11ax (2.4GHz): 3.6 to 574 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE40) • 802.11ax (5GHz): 3.6 to 1,201 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE80)	
802.11n/ac/ax packet aggregation:	A-MPDU, A-MSDU	
Transmit power:	Configurable in increments of 0.5 dBm	
Maximum (aggregate, conducted total) transmit power (limited by local regulatory requirements):	2.4 GHz band: +21 dBm (18dBm per chain) 5 GHz band: +21 dBm (18 dBm per chain) Note: conducted transmit power levels exclude antenna gain. For total (EIRP) transmit power, add antenna gain.	



WI-FI ANTENNAS

AP-504	AP-505
Two (female) RP-SMA connectors for external dual band antennas (A0 and A1, corresponding with radio chains 0 and 1). Worst-case internal loss between radio interface and external antenna connectors (due to duplexing circuitry): 0.7dB in 2.4GHz and 1.3dB in 5GHz.	Two integrated dual-band downtilt omni-directional antennas for 2x2 MIMO with peak antenna gain of 4.9dBi in 2.4GHz and 5.7dBi in 5GHz. Built-in antennas are optimized for horizontal ceiling mounted orientation of the AP. The downtilt angle for maximum gain is roughly 30 degrees. Combining the patterns of each of the antennas of the MIMO radios, the peak gain of the combined, average pattern is 4.3dBi in 2.4GHz and 5.6dBi in 5GHz.

OTHER INTERFACES

Model	AP-504	AP-505
E0: Ethernet wired network port (RJ-45)	- Auto-sensing link speed (10/100/1000BASE-T) and MDI/MDX - POE-PD: 48Vdc (nominal) 802.3af/at POE (class 3 or 4) 802.3az Energy Efficient Ethernet (EEE)	
DC power interface	12Vdc (nominal, +/- 5%), accepts 2.1mm/5.5mm center-positive circular plug with 9.5mm length	
USB 2.0 host interface (Type A connector)	Capable of sourcing up to 1A / 5W to an attached device	
Bluetooth Low Energy (BLE5.0) and Zigbee (802.15.4) radio	- BLE: up to 7dBm transmit power (class 1) and -93dBm receive sensitivity (1Mbps) - Zigbee: up to 6dBm transmit power and -96dBm receive sensitivity Integrated vertically polarized omnidirectional antenna with roughly 30 degrees downtilt and peak gain of 3.3dBi	
Visual indicators (two multi-color LEDs):	For System and Radio status	
Reset button:	Factory reset, LED mode control (normal/off)	
Serial console interface	Proprietary, micro-B USB physical jack	
Security slot	Kensington security slot	

POWER SOURCES AND POWER CONSUMPTION

Model	AP-504	AP-505
Power Sources: The AP supports direct DC power and Power over Ethernet	- The AP supports direct DC power and Power over Ethernet - When both DC and POE power sources are available, DC power takes priority over POE - Power sources are sold separately; see the 500 Series Ordering Guide for details - When powered by DC or 802.3at (class 4) POE, the AP will operate without restrictions. - When powered by 802.3af (class 3) POE and with the IPM feature disabled, the AP will disable the USB port. In the same configuration but with IPM enabled, the AP will start up in unrestricted mode, but may dynamically apply restrictions depending on the POE budget and actual power. The feature restrictions and order can be programmed.	
Maximum (worst-case) power consumption (without / with a USB device attached):	- DC powered: 8.9W / 14.2W. - POE powered (802.3at): 11.0W / 16.5W. - POE powered (802.3af): 11.0W / 13.5W. - This assumes that up to 5W is supplied to the attached USB device.	
Maximum (worst-case) power consumption in idle mode:	4.3W (DC) or 6.2W (POE).	
Maximum (worst-case) power consumption in deep-sleep mode:	1.7W (DC) or 3.7W (POE).	



MECHANICAL SPECIFICATIONS

Model	AP-505
Dimensions/weight (AP-505; unit, excluding mount bracket):	160mm (W) x 161mm (D) x 37mm (H) 500g
Dimensions/weight (AP-505; shipping):	193mm (W) x 183mm (D) x 63mm (H) 645g
Mounting details	A mounting bracket has been pre-installed on the back of the AP. This bracket is used to secure the AP to any of the mount kits (sold separately); see the 500 Series Ordering Guide for details.

ENVIRONMENTAL SPECIFICATIONS

Model	AP-504	AP-505
Operating conditions	• Temperature: 0C to +50C / +32F to +122F • Humidity: 5% to 93% non-condensing • AP is plenum rated for use in air-handling spaces • ETS 300 019 class 3.2 environments	
Storage and transportation conditions	• Temperature: -40C to +70C / -40F to +158F • Humidity: 5% to 93% non-condensing • ETS 300 019 classes 1.2 and 2.3 environments	

RELIABILITY

Model	AP-504	AP-505
Mean Time Between Failure (MTBF):	1.3Mhrs (148yrs) at +25C operating temperature.	

REGULATORY AND SAFETY COMPLIANCE

Model	AP-504	AP-505
Regulatory model numbers	APIN0504	APIN0505
Minimum ArubaOS Release	ArubaOS and Aruba InstantOS 8.6.0.0	
Regulatory compliance (For more country-specific regulatory information and approvals, please see your Aruba representative.)	• FCC/ISED • CE Marked • RED Directive 2014/53/EU • EMC Directive 2014/30/EU • Low Voltage Directive 2014/35/EU • UL/IEC/EN 60950 • EN 60601-1-1, EN60601-1-2	• Railway Certs (AP-505 Only): - EN 50155:2017 - Railway Applications - EN 50121-1:2017 - Railway EMC - EN 50121-3-2 - Railway EMC - EN 50121-4:2016 - Railway Immunity - IEC 61373 ed2:2008 - Railway Shock and Vibration
Certifications	• UL2043 plenum rating • Wi-Fi Alliance: - Wi-Fi CERTIFIED a, b, g, n, ac - Wi-Fi CERTIFIED 6 (ax) - WPA, WPA2 and WPA3 - Enterprise with CNSA option, Personal (SAE), Enhanced Open (OWE) - WMM, WMM-PS, Wi-Fi Vantage, W-Fi Agile Multiband - Wi-Fi Location - Passpoint (release 2) • Bluetooth SIG • Ethernet Alliance (POE, PD device, class 4)	



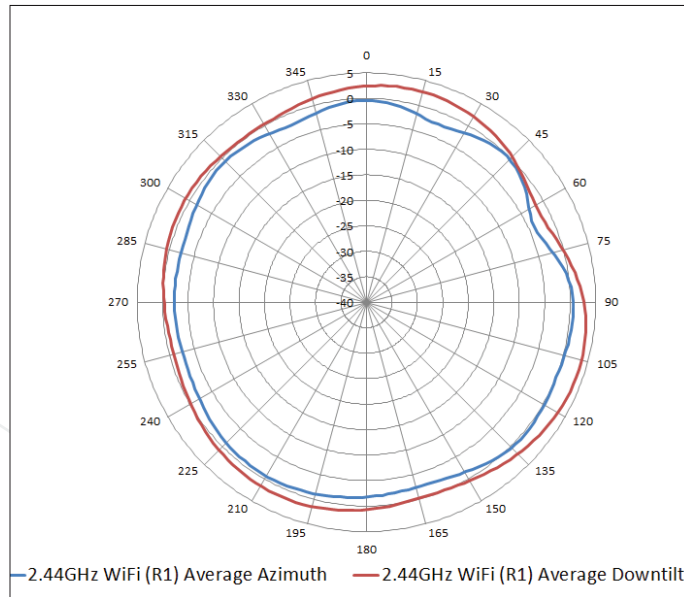
RF PERFORMANCE TABLE		
Band, rate	Maximum transmit power (dBm) per transmit chain	Receiver sensitivity (dBm) per receive chain
2.4GHz, 802.11b		
1Mbps	18	-98
11Mbps	18	-90
2.4GHz, 802.11g		
6Mbps	18	-93
54Mbps	18	-76
2.4GHz, 802.11n HT20		
MCS0	18	-93
MCS7	16	-75
2.4GHz, 802.11ax HE20		
MCS0	18	-93
MCS11	14	-62
5GHz, 802.11a		
6Mbps	18	-92
54Mbps	18	-75
5GHz, 802.11n HT20		
MCS0	18	-92
MCS7	16	-74
5GHz, 802.11n HT40		
MCS0	18	-90
MCS7	16	-71
5GHz, 802.11ac VHT20		
MCS0	18	-92
MCS9	16	-69
5GHz, 802.11ac VHT40		
MCS0	18	-90
MCS9	16	-65
5GHz, 802.11ac VHT80		
MCS0	18	-87
MCS9	16	-62
5GHz, 802.11ax HE20		
MCS0	18	-93
MCS11	14	-62
5GHz, 802.11ax HE40		
MCS0	18	-90
MCS11	14	-59
5GHz, 802.11ax HE80		
MCS0	18	-87
MCS11	14	-56



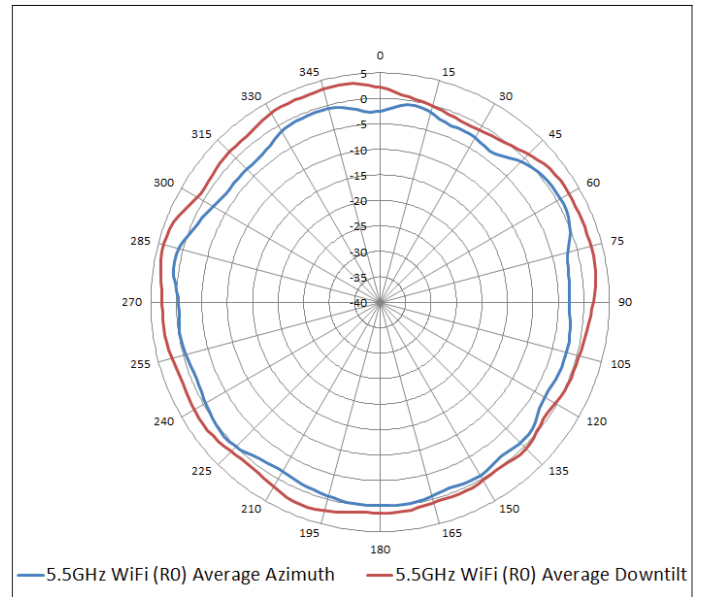
ANTENNA PATTERNS

Horizontal planes (top view)

Showing azimuth (0 degrees) and 30 degrees downtilt patterns (averaged patterns for all applicable antennas)



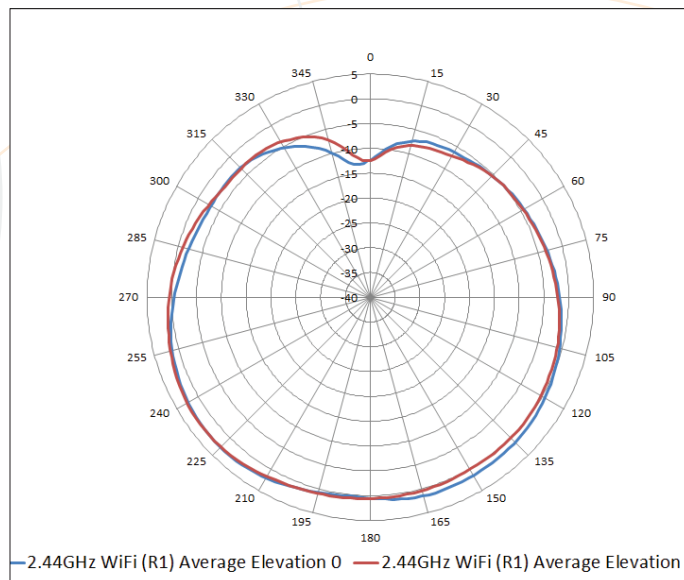
2.44GHz Wi-Fi (antennas 1, 2)



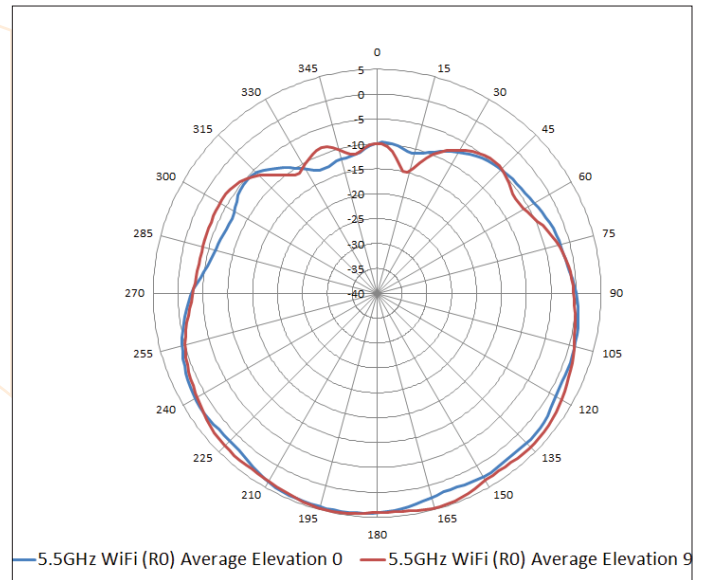
5.5GHz Wi-Fi (antennas 1, 2)

Vertical (elevation) planes (side view, AP facing down)

Showing side view with AP rotated 0 and 90 degrees (averaged patterns for all applicable antennas)



2.44GHz Wi-Fi (antennas 1, 2)



5.5GHz Wi-Fi (antennas 1, 2)



ORDERING INFORMATION

Part number	Description
Aruba 500 Series Campus Access Points	
Internal antenna access points	
R2H25A	Aruba AP-505 (EG) Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
R2H26A	Aruba AP-505 (IL) Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
R2H27A	Aruba AP-505 (JP) Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
R2H28A	Aruba AP-505 (RW) Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
R2H28ACM	Aruba CM AP-505 (RW) Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
R2H29ACM	Aruba CM AP-505 (US) Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
R2H29A	Aruba AP-505 (US) Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
External antenna access points	
R2H19A	Aruba AP-504 (EG) Dual Radio 2x2:2 802.11ax External Antennas Unified Campus AP
R2H20A	Aruba AP-504 (IL) Dual Radio 2x2:2 802.11ax External Antennas Unified Campus AP
R2H21A	Aruba AP-504 (JP) Dual Radio 2x2:2 802.11ax External Antennas Unified Campus AP
R2H22A	Aruba AP-504 (RW) Dual Radio 2x2:2 802.11ax External Antennas Unified Campus AP
R2H23A	Aruba AP-504 (US) Dual Radio 2x2:2 802.11ax External Antennas Unified Campus AP
Internal antenna access points – TAA models	
R2H35A	Aruba AP-505 (EG) TAA Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
R2H36A	Aruba AP-505 (IL) TAA Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
R2H37A	Aruba AP-505 (JP) TAA Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
R2H38A	Aruba AP-505 (RW) TAA Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
R2H39A	Aruba AP-505 (US) TAA Dual Radio 2x2:2 802.11ax Internal Antennas Unified Campus AP
External antenna access points – TAA models	
R2H30A	Aruba AP-504 (EG) TAA Dual Radio 2x2:2 802.11ax External Antennas Unified Campus AP
R2H31A	Aruba AP-504 (IL) TAA Dual Radio 2x2:2 802.11ax External Antennas Unified Campus AP
R2H32A	Aruba AP-504 (JP) TAA Dual Radio 2x2:2 802.11ax External Antennas Unified Campus AP
R2H33A	Aruba AP-504 (RW) TAA Dual Radio 2x2:2 802.11ax External Antennas Unified Campus AP
R2H34A	Aruba AP-504 (US) TAA Dual Radio 2x2:2 802.11ax External Antennas Unified Campus AP
For compatible accessories, see the 500 Series Ordering Guide	

Note: All hardware SKUs can be managed by Aruba Central. Central Managed (CM) SKUs are used for simplified ordering within US and Canada only.

Resources:

1. 500 Series Ordering Guide
2. Aruba Access Points webpage



HPE Foundation Care Exchange Service

Support Services

HPE Foundation Care Exchange Service combines popular remote hardware and software services that enable you to increase the availability of your IT infrastructure. Hewlett Packard Enterprise technical resources work with your IT team to help you to resolve hardware and software problems on your HPE products.

Hardware exchange offers a reliable and fast parts exchange service for eligible Hewlett Packard Enterprise products. Specifically targeted at products that can easily be shipped and on which you can easily restore data from backup files, HPE Foundation Care Exchange is a cost-efficient and convenient alternative to onsite support.

Hardware exchange provides a replacement product or part delivered free of freight charges to your location within a specified period of time. Replacement products or parts are new or equivalent to new in performance.

Software support for HPE Networking products provides remote technical support and access to software updates and patches. Customers can access updates to software and reference manuals as soon as they are made available.

In addition, HPE Foundation Care Exchange provides electronic access to related product and support information, enabling any member of your IT staff to locate commercially available essential information.

Service benefits

- Provides access to Hewlett Packard Enterprise technical resources for problem resolution
- May contribute to improved system performance and reduced downtime
- Allows your IT resources to stay focused on their core tasks and priorities

Service feature highlights

- Choice of Foundation Care Exchange service-level options
- Escalation management
- Access to electronic support information and services
- **Hardware Support**
 - Remote problem diagnosis and support
 - Advance parts exchange
 - Prepaid shipping label, materials, and instructions for defective unit return
 - Replacement parts and materials

This data sheet is governed by the Hewlett Packard Enterprise current standard sales terms, which include the supplemental data sheet, or, if applicable, the Customer's purchase agreement with Hewlett Packard Enterprise.

- Problem analysis and resolution
- **Software support**
 - Access to remote technical resources
 - License to use software updates
 - Software support
 - Software features and operational support
 - HPE recommended software and documentation updates method
 - Firmware updates for selected products

Table 1. Service features

Feature	Delivery specifications
HPE Foundation Care Exchange service-level options	For Hewlett Packard Enterprise products covered by Foundation Care Exchange, HPE offers two distinct hardware replacement parts exchange service levels: • HPE Foundation Care NBD Exchange Service • HPE Foundation Care 4-hour Exchange Service The details of the HPE Foundation Care Exchange hardware replacement parts exchange service levels are outlined in the text that follows. These services are subject to local availability. Contact a local Hewlett Packard Enterprise sales office for detailed information on service availability.
Escalation management	Hewlett Packard Enterprise has established formal escalation procedures to facilitate the resolution of complex incidents. Local Hewlett Packard Enterprise management coordinates incident escalation, enlisting the skills of appropriate HPE resources and/or selected third parties to assist with problem solving.
Access to electronic support information and services	As part of this service, Hewlett Packard Enterprise provides access to commercially available electronic and Web-based tools. The Customer has access to: • Certain capabilities that are made available to registered users, subscribing to hardware-related proactive service notifications, and participating in support forums for solving problems and sharing best practices with other registered users • Expanded Web-based searches of technical support documents to help facilitate problem-solving • A search of Hewlett Packard Enterprise and third-party hosted knowledge databases for certain third-party products in order to retrieve product information, get answers to support questions, and participate in support forums; this service may be limited by third-party access restrictions.
Hardware support	
Remote problem diagnosis and support	When experiencing a problem, the Customer must first place a call to a designated support telephone number. Hewlett Packard Enterprise will provide basic telephone technical assistance with installation, product configuration, setup, and problem resolution. Prior to any remote or offsite assistance, HPE may ask the Customer to provide relevant information, start diagnostic tools, and perform other supporting activities at the request of HPE. HPE will then work with the Customer remotely to isolate the hardware problem.
Advance parts exchange	Hewlett Packard Enterprise will confirm that the ordered part will be shipped in advance of HPE's receipt of the defective part, within the hardware replacement parts exchange service-level. The Customer must return the defective part within the time specified by HPE in the Customer Responsibilities section of this datasheet. The replaced product becomes the property of HPE. For a part not returned within the specified time period, the Customer will be billed and required to pay for such retained part at full country list price.

Prepaid shipping label, materials and instructions for defective unit return	Hewlett Packard Enterprise will ship the HPE-supported replacement product in a container suitable for returning the defective product to HPE. Instructions and a prepaid shipping label for the return of the failed product will be included in the replacement product's shipping container, and Customer will return the defective product in the shipping container in accordance with HPE's instructions.
Replacement parts and materials	Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements. Replacement parts become the property of HPE. Customers who wish to retain, degauss, or otherwise physically destroy replaced parts will be billed and required to pay for the replacement units. Supplies and consumable parts are not supported and will not be provided as part of this service; standard warranty terms and conditions apply to supplies and consumable parts.
Problem analysis and resolution	Hewlett Packard Enterprise provides corrective support to resolve identifiable and customer-reproducible software and hardware product problems for covered products. HPE also provides support to help the Customer identify problems that are difficult to reproduce. In addition, HPE provides the Customer with remote assistance in troubleshooting problems and determining configuration parameters for supported configurations.
Software support Access to technical resources	The Customer can access Hewlett Packard Enterprise technical resources via telephone, electronic communication, or fax (where locally available) for assistance in resolving software implementation or operations problems.
License to use software updates	The Customer receives the license to use software updates to HPE or HPE-supported third-party software for each system, socket, processor, processor core, or end-user software license covered by this service, as allowed by the original Hewlett Packard Enterprise or original manufacturer software license terms. The license terms shall be as described in the HPE software licensing terms corresponding to the Customer's prerequisite underlying software license, or in accordance with the current licensing terms of the third-party software manufacturer, if applicable, including any additional software licensing terms that may accompany such software updates provided under this service.
Software support	Once a software problem is logged, a Hewlett Packard Enterprise Solution Center engineer will respond to the call within two hours. HPE provides corrective support to help resolve identifiable and customer-reproducible software product problems. HPE also provides support to help the Customer identify problems that are difficult to reproduce. In addition, HPE provides the Customer with assistance in troubleshooting problems and determining configuration parameters for supported configurations.
Software features and operational support	Hewlett Packard Enterprise provides information, as commercially available, on current product features, known problems and available solutions, and operational advice and assistance.
HPE recommended software and documentation updates method	For HPE or HPE-supported third-party software and documentation updates, the recommended delivery method will be determined by Hewlett Packard Enterprise. The primary delivery method for software updates and documentation updates will be via download from the Software Updates and Licensing portal or third-party hosted website.
Firmware updates for selected products	Access to firmware updates. As Hewlett Packard Enterprise releases firmware updates to HPE networking hardware or jointware products, these updates will only be made available to the Customers who purchase coverage for such products under this service. In addition: • Customer has the right to download, install, and use firmware updates for hardware or jointware products covered by this service, subject to all applicable license restrictions in HPE's current standard sales terms. • HPE will verify entitlement to updates by reasonable means (such as an access code or other identifier) and Customer is responsible for using any such access tools in accordance with the terms of this datasheet and other applicable agreements with HPE. • HPE may take additional reasonable steps, including audits, to verify Customer's adherence to terms of its agreements with HPE, including this datasheet. • For Customers with licenses to firmware-based software products (features implemented in firmware activated by the purchase of a separate software license product) the Customer must also have, if available, an active HPE Software Support agreement to receive, download, install and use related firmware updates. HPE will assist the Customer with installation of firmware updates as previously described in this document only if the Customer has a license to use the related software updates for each system, socket, processor, core or end-user software license as allowed by the original HPE or original manufacturer license terms.

Table 2. Service-level options

Not all service-level options are available on all products. The service-level options the Customer has chosen will be specified in the Customer's contract documentation.

Option	Delivery specifications
HPE Foundation Care 4 hr Exchange	Service is available 24 hours per day, Monday through Sunday, including HPE holidays. Replacement hardware for covered products will be delivered within four hours of a call being logged received and acknowledged by HPE. All hardware product replacement delivery times are subject to local availability. Contact a local Hewlett Packard Enterprise sales office for detailed information on service availability.
HPE Foundation Care NBD Exchange	Service is available 24 hours per day, Monday through Sunday, including HPE holidays. For calls received before 2:00 p.m. local time, HPE standard business days, excluding HPE holidays, HPE will ship a replacement product to the Customer's site for delivery on the next business day after the service request has been received and acknowledged by HPE. Service calls received after 2:00 p.m. will be logged the next business day and serviced within the following business day. Delivery time may vary based on geographic location. All hardware replacement product delivery times are subject to local availability. Contact a local Hewlett Packard Enterprise sales office for detailed information on service availability.

Service limitations

Hewlett Packard Enterprise retains the right to determine the final resolution of all service requests.

Activities such as, but not limited to, the following are excluded from this service:

- Services required due to failure of the Customer to incorporate any system fix, repair, patch, or modification provided to the Customer by Hewlett Packard Enterprise
- Services that, in the opinion of Hewlett Packard Enterprise, are required due to unauthorized attempts by non-HPE personnel to install, repair, maintain, or modify hardware, firmware, or software
- Operational testing of applications, or additional tests requested or required by the Customer
- Services required due to failure of the Customer to take avoidance action previously advised by Hewlett Packard Enterprise
- Services that, in the opinion of Hewlett Packard Enterprise, are required due to improper treatment or use of the product
- Backup, recovery, support of other software, and data
- Installation of any customer-installable firmware and/or software updates
- Installation of replacement product
- Any services not clearly specified in this document
- Non-HPE devices

Software Support:

Software updates are not available for all software products. When this service feature is not available, it will not be included in this service.

For some products, software updates include only minor improved features. New software versions must be purchased separately.

Travel zones

Travel zones will apply to courier only.

Courier travel zones and charges, if applicable, may vary in some geographic locations.

Response times to sites located more than 100 miles (160 km) from an HPE designated support hub will have modified response times for extended courier travel, as shown in the table below.

Next Business Day Hardware Exchange response times

Distance from primary HPE support office	Next-day response time service level
0–100 miles (0–160 km)	Next coverage day
101–200 miles (161–320 km)	1 additional coverage day
201–300 miles (321–480 km)	2 additional coverage days
More than 300 miles (480 km)	Established at time of order and subject to resource availability

4-Hour Hardware Exchange response times

Distance from primary HPE support office	4-hour response time
0–100 miles (0–160 km)	4 hours
101–200 miles (161–320 km)	8 hours
201–300 miles (321–480 km)	Established at time of order and subject to resource availability
More than 300 miles (480 km)	Established at time of order and subject to resource availability

Prerequisites

To be eligible to purchase this service for HPE Networking products, the Customer must be properly licensed to use a currently supported revision of the software at the time the support agreement coverage begins; otherwise, additional charges may be applied to bring the Customer into service eligibility.

If the Customer has licenses to firmware-based software products (features implemented in firmware activated by the purchase of a separate software license product) or licensed firmware, then the Customer must also have, if available, an active Hewlett Packard Enterprise Foundation Care Support agreement for that product to receive, download, install, and use related firmware updates. HPE will provide, install, or assist the Customer with the installation of firmware updates as previously described in this document only if the Customer has the license to use the related software updates for each system, socket, processor, processor core, or end-user software license as allowed by the original HPE software license terms.

Service eligibility

HPE Foundation Care Exchange must be purchased for each HPE Networking product in the Customer's environment that requires this level of support

To be eligible to purchase this service for HPE Networking products, the Customer must be properly licensed to use a currently supported revision of the software at the time the support agreement coverage begins; otherwise, additional charges may be applied to bring the Customer into service eligibility.

Customer responsibilities

The Customer must retain and provide to Hewlett Packard Enterprise upon request all original software licenses, upgrade license agreements, and license keys.

If the Customer does not act upon the specified Customer responsibilities, at HPE's discretion, HPE or the Hewlett Packard Enterprise authorized service provider will i) not be obligated to deliver the services as described, or ii) perform such service at the Customer's expense at the prevailing time and material rates.

The Customer must provide accurate and complete information in a timely manner as required for Hewlett Packard Enterprise to perform the services. The Customer must also provide accurate and complete shipping information in a timely manner as required by HPE to deliver the replacement product.

Upon Hewlett Packard Enterprise request, the Customer will be required to support HPE's remote problem resolution efforts. The Customer will:

- Start self-tests and install and run other diagnostic tools and programs
- Install customer-installable firmware updates and patches
- Provide all information necessary for Hewlett Packard Enterprise to deliver timely and professional remote support and to enable HPE to determine the level of support eligibility
- Perform other reasonable activities to help Hewlett Packard Enterprise identify or resolve problems, as requested by HPE

The Customer is responsible for installing, in a timely manner, critical customer-installable firmware updates, as well as Customer Self Repair parts and replacement products delivered to the Customer.

The Customer agrees to pay additional charges if the Customer requests that Hewlett Packard Enterprise install customer-installable firmware updates or patches. Any additional charges to the Customer will be on a time and materials basis, unless otherwise previously agreed in writing by HPE and the Customer.

In addition, the Customer will:

- Take responsibility for registering to use the Hewlett Packard Enterprise or third-party vendor's electronic facility in order to access knowledge databases, to obtain product information; HPE will provide registration information to the Customer, as required; additionally, for certain products, the Customer may be required to accept vendor-specific terms for use of the electronic facility
- Retain, and provide to Hewlett Packard Enterprise upon request, all original software licenses, license agreements, license keys, and subscription service registration information, as applicable for this service
- Take responsibility for acting upon software product updates and obsolescence notifications received from the HPE Support Center
- Be responsible for all data backup and restore operations
- Adhere to the licensing terms and conditions as stated by the original software manufacturer or sales agent
- Use all software products in accordance with current Hewlett Packard Enterprise software licensing terms corresponding to the Customer's prerequisite underlying software license, or in accordance with the current licensing terms of the third-party software manufacturer, if applicable, including any additional software licensing terms that may accompany such software updates provided under this service

If required by Hewlett Packard Enterprise, the Customer or Hewlett Packard Enterprise Authorized Representative must activate the hardware product to be supported within ten (10) days of purchase of this service, using the registration instructions within the support services or the email document provided by HPE, or as otherwise directed by HPE. In the event that a covered product changes location, activation and registration (or a proper adjustment to existing HPE registration) is to occur within ten days of the change.

The Customer is responsible for the security of the Customer's proprietary and confidential information. The Customer is responsible for properly sanitizing or removing data from products that may be replaced and returned to Hewlett Packard Enterprise as part of the repair process to ensure the safeguarding of the Customer's data. For more information on Customer responsibilities, including those outlined in HPE's Media Sanitization Policy and Media Handling Policy for Healthcare Customers, go to www.hpe.com/mediahandling.

Data sheet

The Customer must ship the defective product or parts to Hewlett Packard Enterprise within five (5) business days of receipt of the replacement product or part and must obtain a prepaid insurance receipt, which should be retained by the Customer as proof of shipment to HPE. If the defective product or part is not received by HPE within 10 business days of the Customer's receipt of the replacement product, the Customer will be charged the replacement product's list price.

Coverage

Consumable items including, but not limited to, removable media, customer-replaceable batteries, maintenance kits, and other supplies, as well as user maintenance, are not covered by this service.

- For replacement parts and components that are discontinued, an upgrade path may be required. Upgrades for discontinued parts or components may in some cases result in additional charges to the Customer. Hewlett Packard Enterprise will work with the Customer to recommend a replacement.

For Hewlett Packard Enterprise networking systems, the service on the main product covers HPE-branded hardware options not designated by HPE as requiring separate coverage that are qualified for the system, are purchased at the same time or afterward, and are internal to the system (e.g., connectivity modules, transceivers, and internal power supplies).

General provisions/Other exclusions

Hewlett Packard Enterprise reserves the right to charge, on a time and materials basis, for any additional work over and above the service package pricing that may result from work required to address service prerequisites or other requirements that are not met by the Customer.

- This service provides telephone advice. Further actions by the Customer might be required to resolve a problem

Activities such as, but not limited to, the following are excluded from this service:

- Any services not clearly specified in this document

Ordering information

For products containing individually sold and supported units or options, all individually sold and supported units or options must be on contract and at the same level as the base product if that service level is available on those units or options.

Availability of service features and service levels may vary according to local resources and may be restricted to eligible products and geographic locations.

To obtain further information or to order HPE Foundation Care Exchange Support Service, contact a local Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise reseller.

For more information

For more information on HPE Foundation Care Exchange Service or other Support Services, contact any of our worldwide sales offices or visit the following website:

www.hpe.com/services/support



**Hewlett Packard
Enterprise**

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This data sheet is governed by the Hewlett Packard Enterprise current standard sales terms, which include the supplemental data sheet, or, if applicable, the Customer's purchase agreement with Hewlett Packard Enterprise.

4AA4-8877ENW, November 2015, Rev. 1



AGENDA MEMORANDUM

DATE: October 12, 2021

TO: Honorable City Council Members

FROM: Bradley Fraley, Chief Information Officer

THROUGH: Robert Parker, Interim City Manager

SUBJECT: Discuss and consider action on the purchase of network server replacements and software through cooperative purchasing via DIR State Contracts

BACKGROUND/INFORMATION:

In order to maintain the daily operations, productivity and security of the City, it has become necessary to refresh and expand server hardware on a 5-year basis. Parts availability outside of warranty is extremely limited, particularly in the post-COVID-19 era. Potential hardware failures coupled with manufacturing shortages which extend across most sectors create significant risk to City operations and our ability to maintain expected uptimes. Data storage requirements continue to grow and are nearing current capacity. Technology and performance requirements are evolving. Compliance with certain security standards (CJIS) must be addressed. Mainstream software support for our current operating systems is ending, although extended support continues.

In recognition of these factors, during the FY2021-2022 budgeting process, six (6) server replacements and software were included in the Capital Outlay Plan which was previously presented to the Council. These replacements include the necessary hardware to replace the City's server core (4 physical servers - 8 virtualized) as well as the necessary software to upgrade from Microsoft Server 2016 to Microsoft Server 2022. These replacements also include two (2) servers for the Police Department which are necessary to address storage and security issues which exist with current hardware as well as to provide connectivity enhancements to police and fire mobile data terminals. Also included within this purchase request are upgrades for Microsoft SQL Server 2019 on two servers.

If approved, replaced servers will be decommissioned from production and auctioned. I.T. does intend to use a few decommissioned servers to construct a "test" environment that can be used for various purposes, such as software testing, training, change management, etc.

The quote for the servers are from Dell Technologies under DIR State Contract DIR-TSO-3763 in an amount of \$49,453.19. The quote for the software is from Software



AGENDA MEMORANDUM

House International under DIR State Contract DIR-TSO-4092 in an amount of \$34,234.26.

FINANCIAL IMPLICATIONS:

All items within budget and are part of the Fiscal 2021-2022 Capital Outlay Plan presented to the Council.

RECOMMENDATION/ACTION DESIRED:

Approval of the purchase of server hardware replacements from Dell Technologies for an amount of \$49,453.19 from DIR State Contract DIR-TSO-3763 and the purchase of server software from Software House International for an amount of \$34,234.26 from DIR State Contract DIR-TSO-4092.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. SHI Quote-21087623
2. Dell US_QUOTE_3000101179324.1
3. SHI 1295 FORM

REVIEWED BY:

Deby Woodard, Assistant Director of Finance
Sandra Gibson, Director of Finance
Caroline Kelley, City Attorney
Robert Parker, Interim City Manager
Terri Johnson, Interim City Secretary
Approved as to form for inclusion on Agenda

Approved - 10/13/2021
Approved - 10/14/2021
Approved - 10/15/2021
Approved - 10/18/2021
Final Approval - 10/18/2021



Pricing Proposal

Quotation #:	21087623
Description:	MS Select Plus Licenses
Created On:	Oct-04-2021
Valid Until:	Oct-29-2021

City of Watauga TX

Bradley Fraley
7101 Whitley Road
Watauga, TX 76148
UNITED STATES
Phone: (817) 514-5824
Fax: (817) 514-3624
Email: BFraley@wataugatx.org

Inside Account Manager

Jonathan Gaudet
3828 Pecana Trail
Austin, TX 78749
Phone: (800) 870-6079 Option 2
Fax: 512-732-0232
Email: Jonathan_Gaudet@shi.com

[Click here](#) to order this quote

All Prices are in US Dollar(USD)

Product	Qty	Your Price	Total
1 Win Svr Std Core 2022 Sngl 2 Lic Core Lic Microsoft - Part#: 9EM-00832 Contract Name: Microsoft Software VAR Contract #: DIR-TSO-4092 Note: 5 Servers / 20 Cores Each	144	\$87.59	\$12,612.96
2 Win Svr Std Core 2022 Sngl 2 Lic Core Lic Microsoft - Part#: 9EM-00832 Contract Name: Microsoft Software VAR Contract #: DIR-TSO-4092 Note: 1 Server (16 Cores)	6	\$87.59	\$525.54
3 Windows Server CAL 2022 Single Language User CAL Microsoft - Part#: R18-06495 Contract Name: Microsoft Software VAR Contract #: DIR-TSO-4092	240	\$30.29	\$7,269.60
4 Microsoft SQL Server 2019 Standard - License - 2 cores - volume - Linux, Win - Single Language Microsoft - Part#: 7NQ-01588 Contract Name: Microsoft Software VAR Contract #: DIR-TSO-4092 Note: 4 Core Minimum - Each License Covers 2 Cores	6	\$2,304.36	\$13,826.16
Subtotal			\$34,234.26
Shipping			\$0.00
Total			\$34,234.26

Additional Comments

Thank you for choosing SHI-GS! The pricing offered on this quote proposal is valid through the expiration date set above. To ensure the best level of service, please provide End User Name, Phone Number, Email Address, Quote Number, and applicable Contract Number when submitting a Purchase Order. SHI Government Solutions, Inc. is 100% Minority Owned, Woman Owned Business. TAX ID# 22-3695478; DUNS# 14-724-3096

Please note, if Emergency Connectivity Funds (ECF) will be used to pay for all or part of this quote, please let us know as we will need to ensure compliance with the funding program.

Hardware items on this quote may be updated to reflect changes due to industry wide constraints and fluctuations.

Thank you for choosing SHI-GS! The pricing offered on this quote proposal is valid through the expiration date set above. To ensure the best level of service, please provide End User Name, Phone Number, Email Address and applicable Contract Number when submitting a Purchase Order.

SHI Government Solutions, Inc. is 100% Minority Owned, Woman Owned Business.
TAX ID# 22-3695478; DUNS# 14-724-3096

The products offered under this proposal are resold in accordance with the terms and conditions of the Contract referenced under that applicable line item.



A quote for your consideration

Based on your business needs, we put the following quote together to help with your purchase decision. Below is a detailed summary of the quote we've created to help you with your purchase decision.

To proceed with this quote, you may respond to this email, order online through your [Premier page](#), or, if you do not have Premier, use this [Quote to Order](#).

Quote No.	3000101179324.1	Sales Rep	Jonny LaComb
Total	\$49,453.19	Phone	(800) 456-3355, 6178997
Customer #	75146100	Email	Jonathan_LaComb@Dell.com
Quoted On	Oct. 05, 2021	Billing To	BRADLEY FRALEY
Expires by	Nov. 04, 2021		CITY OF WATAUGA
Contract Name	Texas Department of Information Resources (TX DIR)		7105 WHITLEY RD WATAUGA, TX 76148
Contract Code	C000000006841		
Customer Agreement #	TX DIR-TSO-3763		
Solution ID	15009256		
Deal ID	21393971		

Message from your Sales Rep

Please contact your Dell sales representative if you have any questions or when you're ready to place an order. Thank you for shopping with Dell!

Regards,
Jonny LaComb

Shipping Group

Shipping To	Shipping Method
BRADLEY FRALEY CITY OF WATAUGA 7105 WHITLEY RD WATAUGA, TX 76148-2024 (817) 514-5824	Standard Delivery

Product	Unit Price	Quantity	Subtotal
PowerEdge R550 - [amer_r550_15128]	\$8,893.50	5	\$44,467.50
PowerEdge R450 - [amer_r450_15127]	\$4,985.69	1	\$4,985.69

Subtotal:	\$49,453.19
Shipping:	\$0.00
Environmental Fee:	\$0.00
Non-Taxable Amount:	\$49,453.19
Taxable Amount:	\$0.00
Estimated Tax:	\$0.00

Total:	\$49,453.19
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Shipping Group Details

Shipping To	Shipping Method
BRADLEY FRALEY CITY OF WATAUGA 7105 WHITLEY RD WATAUGA, TX 76148-2024 (817) 514-5824	Standard Delivery

		Quantity	Subtotal
PowerEdge R550 - [amer_r550_15128]	\$8,893.50	5	\$44,467.50
Estimated delivery if purchased today: Oct. 29, 2021 Contract # C000000006841 Customer Agreement # TX DIR-TSO-3763			

Description	SKU	Unit Price	Quantity	Subtotal
3.5 Chassis	379-BDSZ	-	5	-
SAS/SATA Backplane	379-BDSS	-	5	-
PowerEdge R550 Server	210-AZEG	-	5	-
Trusted Platform Module 2.0 V3	461-AAIG	-	5	-
8x3.5" SAS/SATA, 2 CPU	321-BGSI	-	5	-
Intel Xeon Gold 5317 3G, 12C/24T, 11.2GT/s, 18M Cache, Turbo, HT (150W) DDR4-2933	338-CBWN	-	5	-
Intel Xeon Gold 5317 3G, 12C/24T, 11.2GT/s, 18M Cache, Turbo, HT (150W) DDR4-2933	338-CBWN	-	5	-
Additional Processor Selected	379-BDCO	-	5	-
Standard Heatsink	412-AAVU	-	5	-
Standard Heatsink	412-AAVU	-	5	-
Performance Optimized	370-AAIP	-	5	-
3200MT/s RDIMMs	370-AEVR	-	5	-
Unconfigured RAID	780-BCDS	-	5	-
PERC H745 Controller, Front	405-AAUZ	-	5	-
Front PERC Mechanical Parts, front load	750-ACFR	-	5	-
Performance BIOS Settings	384-BBBL	-	5	-
UEFI BIOS Boot Mode with GPT Partition	800-BBDM	-	5	-
Standard Fan Cold Swap 2U,V2 x5	750-ADIN	-	5	-
Dual, Hot-plug, PSU (1+1), 800, Mixed Mode	450-AIQX	-	5	-
2 CPU, 3x16 LP+ 1x8(x4 link) LP	330-BBVE	-	5	-
PowerEdge R550 Motherboard	329-BGIB	-	5	-
iDRAC9, Express 15G	385-BBQZ	-	5	-
Intel i350 Quad Port 1GbE BASE-T, OCP NIC 3.0	540-BCOE	-	5	-
PowerEdge 2U Standard Bezel	325-BCHU	-	5	-
Dell EMC Luggage Tag R550	350-BCFM	-	5	-
BOSS-S2 controller card + with 2 M.2 480GB (RAID 1)	403-BCMB	-	5	-
BOSS S2 cables and Bracket for R750xs	403-BCNU	-	5	-
No Quick Sync	350-BCER	-	5	-

iDRAC,Factory Generated Password	379-BCSF	-	5	-
iDRAC Group Manager, Disabled	379-BCQY	-	5	-
No Operating System	611-BBBF	-	5	-
No Media Required	605-BBFN	-	5	-
ReadyRails Static Rails for 2/4-post Racks	770-BDZN	-	5	-
No Internal Optical Drive	429-AAIQ	-	5	-
No Systems Documentation, No OpenManage DVD Kit	631-AACK	-	5	-
PowerEdge R550 Shipping	340-CVKM	-	5	-
PowerEdge R550 Shipping Material	343-BBRT	-	5	-
PowerEdge 2U CCC Marking, No CE Marking	389-DYMO	-	5	-
Dell/EMC label (BIS) for 3.5" Chassis	389-DYMS	-	5	-
US Order	332-1286	-	5	-
Dell Hardware Limited Warranty Plus Onsite Service	859-4568	-	5	-
ProSupport Next Business Day Onsite Service After Problem Diagnosis 5 Years	859-4582	-	5	-
ProSupport 7x24 Technical Support and Assistance 5 Years	859-4602	-	5	-
Thank you choosing Dell ProSupport. For tech support, visit //www.dell.com/support or call 1-800- 945-3355	989-3439	-	5	-
On-Site Installation Declined	900-9997	-	5	-
16GB RDIMM, 3200MT/s, Dual Rank	370-AEVQ	-	40	-
4TB 7.2K RPM NLSAS 12Gbps 512n 3.5in Hard Drive	400-ASHY	-	30	-
C13 to C14, PDU Style, 12 AMP, 6.5 Feet (2m) Power Cord, North America	492-BBDI	-	10	-
Intel X710-T2L Dual Port 10GbE BASE-T Adapter, PCIe Low Profile	540-BCRQ	-	5	-

			Quantity	Subtotal
PowerEdge R450 - [amer_r450_15127]	\$4,985.69	1		\$4,985.69

Estimated delivery if purchased today:
Oct. 29, 2021
Contract # C000000006841
Customer Agreement # TX DIR-TSO-3763

Description	SKU	Unit Price	Quantity	Subtotal
2.5 Chassis	379-BDTF	-	1	-
SAS/SATA Backplane	379-BDSS	-	1	-
PowerEdge R450 Server	210-AZDS	-	1	-
Trusted Platform Module 2.0 V3	461-AAIG	-	1	-
8x2.5" (SAS/SATA) 1 CPU	321-BGQS	-	1	-
Intel Xeon Gold 5317 3G, 12C/24T, 11.2GT/s, 18M Cache, Turbo, HT (150W) DDR4-2933	338-CBWN	-	1	-
No Additional Processor	374-BBBX	-	1	-
Heatsink for CPU less than 185W	412-AAVR	-	1	-
Blank for 1CPU Configuration	412-AAVV	-	1	-
Performance Optimized	370-AAIP	-	1	-
3200MT/s RDIMMs	370-AEVR	-	1	-
RAID 1	780-BCDN	-	1	-
PERC H745 Controller, Front	405-AAUZ	-	1	-

Front PERC Mechanical Parts, front load	750-ACFR	-	1	-
Performance BIOS Settings	384-BBBL	-	1	-
Standard Fan x5	384-BCTZ	-	1	-
Dual, Hot-plug, PSU (1+1), 800, Mixed Mode	450-AIQX	-	1	-
Riser Config 0, 1xOCP 3.0(x16)+ 1x16LP	330-BBVF	-	1	-
PowerEdge R450 Motherboard	329-BGHZ	-	1	-
iDRAC9, Express 15G	385-BBQZ	-	1	-
Intel X710-T2L Dual Port 10GbE BASE-T, OCP NIC 3.0	540-BCRS	-	1	-
CFI,STANDARD OPTION NOT SELECTED	692-BBBB	-	1	-
Standard Bezel	325-BCHH	-	1	-
Dell EMC Lugage Tag (x8)	350-BCFL	-	1	-
No Quick Sync	350-BCEM	-	1	-
iDRAC,Factory Generated Password	379-BCSF	-	1	-
iDRAC Group Manager, Disabled	379-BCQY	-	1	-
No Operating System	611-BBBF	-	1	-
No Media Required	605-BBFN	-	1	-
ReadyRails Static Rails for 2/4-post Racks	770-BBBM	-	1	-
No Internal Optical Drive	429-AAIQ	-	1	-
No Systems Documentation, No OpenManage DVD Kit	631-AACK	-	1	-
PowerEdge R450 Shipping	340-CVKF	-	1	-
PowerEdge R450 x8 Short Drive Shipping Material	343-BBRQ	-	1	-
PowerEdge 1U CCC Marking, No CE Marking	389-DYLZ	-	1	-
Dell/EMC label (BIS) for Chassis	389-DYMB	-	1	-
US Order	332-1286	-	1	-
Dell Hardware Limited Warranty Plus Onsite Service	859-3804	-	1	-
ProSupport Next Business Day Onsite Service After Problem Diagnosis 5 Years	859-3818	-	1	-
ProSupport 7x24 Technical Support and Assistance 5 Years	859-3838	-	1	-
Thank you choosing Dell ProSupport. For tech support, visit //www.dell.com/support or call 1-800- 945-3355	989-3439	-	1	-
On-Site Installation Declined	900-9997	-	1	-
16GB RDIMM, 3200MT/s, Dual Rank	370-AEVQ	-	4	-
480GB SSD SATA Mix Use 6Gbps 512 2.5in Hot-plug AG Drive, 3 DWPD,	400-AZUT	-	2	-
Power Cord - C13, 3M, 125V, 15A (North America, Guam, North Marianas, Philippines, Samoa, Vietnam)	450-AALV	-	2	-
Broadcom 5719 Quad Port 1GbE BASE-T Adapter, PCIe Low Profile	540-BBDF	-	1	-

Subtotal:	\$49,453.19
Shipping:	\$0.00
Environmental Fee:	\$0.00
Estimated Tax:	\$0.00
Total:	\$49,453.19

Important Notes

Terms of Sale

This Quote will, if Customer issues a purchase order for the quoted items that is accepted by Supplier, constitute a contract between the entity issuing this Quote ("Supplier") and the entity to whom this Quote was issued ("Customer"). Unless otherwise stated herein, pricing is valid for thirty days from the date of this Quote. All product, pricing and other information is based on the latest information available and is subject to change. Supplier reserves the right to cancel this Quote and Customer purchase orders arising from pricing errors. Taxes and/or freight charges listed on this Quote are only estimates. The final amounts shall be stated on the relevant invoice. Additional freight charges will be applied if Customer requests expedited shipping. Please indicate any tax exemption status on your purchase order and send your tax exemption certificate to Tax_Department@dell.com or ARSalesTax@emc.com, as applicable.

Governing Terms: This Quote is subject to: (a) a separate written agreement between Customer or Customer's affiliate and Supplier or a Supplier's affiliate to the extent that it expressly applies to the products and/or services in this Quote or, to the extent there is no such agreement, to the applicable set of Dell's Terms of Sale (available at www.dell.com/terms or www.dell.com/oemterms), or for cloud/as-a-Service offerings, the applicable cloud terms of service (identified on the Offer Specific Terms referenced below); and (b) the terms referenced herein (collectively, the "Governing Terms"). Different Governing Terms may apply to different products and services on this Quote. The Governing Terms apply to the exclusion of all terms and conditions incorporated in or referred to in any documentation submitted by Customer to Supplier.

Supplier Software Licenses and Services Descriptions: Customer's use of any Supplier software is subject to the license terms accompanying the software, or in the absence of accompanying terms, the applicable terms posted on www.Dell.com/eula. Descriptions and terms for Supplier-branded standard services are stated at www.dell.com/servicecontracts/global or for certain infrastructure products at www.dell.com/en-us/customer-services/product-warranty-and-service-descriptions.htm.

Offer-Specific, Third Party and Program Specific Terms: Customer's use of third-party software is subject to the license terms that accompany the software. Certain Supplier-branded and third-party products and services listed on this Quote are subject to additional, specific terms stated on www.dell.com/offeringsspecificterms ("Offer Specific Terms").

In case of Resale only: Should Customer procure any products or services for resale, whether on standalone basis or as part of a solution, Customer shall include the applicable software license terms, services terms, and/or offer-specific terms in a written agreement with the end-user and provide written evidence of doing so upon receipt of request from Supplier.

In case of Financing only: If Customer intends to enter into a financing arrangement ("Financing Agreement") for the products and/or services on this Quote with Dell Financial Services LLC or other funding source pre-approved by Supplier ("FS"), Customer may issue its purchase order to Supplier or to FS. If issued to FS, Supplier will fulfill and invoice FS upon confirmation that: (a) FS intends to enter into a Financing Agreement with Customer for this order; and (b) FS agrees to procure these items from Supplier. Notwithstanding the Financing Agreement, Customer's use (and Customer's resale of and the end-user's use) of these items in the order is subject to the applicable governing agreement between Customer and Supplier, except that title shall transfer from Supplier to FS instead of to Customer. If FS notifies Supplier after shipment that Customer is no longer pursuing a Financing Agreement for these items, or if Customer fails to enter into such Financing Agreement within 120 days after shipment by Supplier, Customer shall promptly pay the Supplier invoice amounts directly to Supplier.

Customer represents that this transaction does not involve: (a) use of U.S. Government funds; (b) use by or resale to the U.S. Government; or (c) maintenance and support of the product(s) listed in this document within classified spaces. Customer further represents that this transaction does not require Supplier's compliance with any statute, regulation or information technology standard applicable to a U.S. Government procurement.

For certain products shipped to end users in California, a State Environmental Fee will be applied to Customer's invoice. Supplier encourages customers to dispose of electronic equipment properly.

Electronically linked terms and descriptions are available in hard copy upon request.

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

SHI Government Solutions
Austin, TX United States

Certificate Number:
2021-812797

Date Filed:
10/14/2021

Date Acknowledged:
10-14-2021

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

City of Watauga

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

21087623
Microscot Server Software

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary

5 Check only if there is NO Interested Party.



6 UNSWORN DECLARATION

My name is Justin DAmore, and my date of birth is 12/23/1994.

My address is 3828 Pecana Trail, Austin, TX, 78749, USA.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Travis County, State of Texas, on the 14th day of October, 2021.
(month) (year)

Justin DAmore

Signature of authorized agent of contracting business entity
(Declarant)



AGENDA MEMORANDUM

DATE: October 14, 2021

TO: Honorable City Council Members

FROM: Bradley Fraley, Chief Information Officer

THROUGH: Robert Parker, Interim City Manager

SUBJECT: Discuss and consider action on the purchase of an audio/visual equipment upgrade for the Council Chambers to facilitate combined live and virtual meeting participants.

BACKGROUND/INFORMATION:

Prior to the start of the COVID-19 Pandemic, the City contracted with Ford Audio Video to upgrade the video and audio equipment used for the recording and broadcast of Council and Board meetings in the Council Chambers. The system so far has worked very well for in-person meetings. The system was also accommodating for our move to all virtual meetings during the closures which occurred as part of the pandemic safeguards. However, while the system design in place is robust, the city has not been able to conduct meetings in the chambers wherein participants are both in-person and virtual at the same time, a feature which would potentially expand participation, particularly for presenters and even the public.

To facilitate combined meetings, Ford Audio Video has provided an enhancement solution proposal with the codec, programming and equipment necessary to address the issues preventing combined in-person/virtual meetings. The issues addressed by the proposal include providing for an additional SDI output signal from the existing studio switcher to an HDMI signal, additional ports for the Crestron DM matrix video switcher, a splitter for sending the signal to the presentation system and lobby displays, and the video conferencing code required for WebEx video and voice calls in the Chambers. In addition, the proposal includes a replacement DSP digital audio signal processor for audio signal routing, equalization, feedback suppression, echo cancellation and compression as needed. Finally, the proposal includes programming and integration into the current control system, testing, engineering and training as needed. The proposal provided is based on pricing from TIPS Contract #200904, which satisfies bidding requirements. Staff is recommending approval now due to the lengthy lead times required of 8-10 weeks before the project starts, which effectively sets install at the beginning of 2022.

FINANCIAL IMPLICATIONS:



AGENDA MEMORANDUM

Item budgeted as part of the Fiscal 2021-2022 Capital Outlay Plan presented to the Council to be funded from PEG funds.

RECOMMENDATION/ACTION DESIRED:

Approval of the purchase of an A/V upgrade from Ford Audio Video for an amount of \$25,596.76 from TIPS Contract #200904.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

1. Ford A/V-Council Chambers WebEx Proposal
2. FORD A-V 1295 FORM

REVIEWED BY:

Deby Woodard, Assistant Director of Finance

Sandra Gibson, Director of Finance

Caroline Kelley, City Attorney

Robert Parker, Interim City Manager

Terri Johnson, Interim City Secretary

Approved as to form for inclusion on Agenda

Approved - 10/20/2021

Approved - 10/20/2021

Approved - 10/20/2021

Approved - 10/20/2021

Final Approval - 10/20/2021

October 13, 2021

Mr. Bradley Fraley
City of Watauga
7105 Whitley Road
Watauga, TX 76148

RE: Council Chambers WebEx Addition

Dear Mr. Fraley:

Ford Audio-Video Systems, LLC (Ford) respectfully submits for your consideration the attached proposal, which covers the details of the system requirements in the following outline:

- A. Introduction
- B. Description of Work and Responsibilities
- C. Installation Schedule
- D. Equipment List
- E. Cost Summary and Terms
- F. Guarantees and Limitations of Warranty
- G. Training and Documentation
- H. Building Construction and Installation
- I. Acceptance

The proposed systems are based upon our understanding of your requirements as communicated to us during our meetings and conversations. If there are any changes that need to be made, please let us know. We invite you to compare our systems with any other: in quality, price, and professionalism of installation, we are second to none.

This proposal contains confidential pricing, design, and installation information that is proprietary to Ford and utilizes Ford Audio-Video Systems, LLC's **TIPS Contract, #200904**. It is provided for your private use, and is not to be disclosed, in part or in whole, without the express, written authorization of Ford. Please let us know if any questions arise. We look forward to serving you.

Sincerely,

FORD AUDIO-VIDEO SYSTEMS, LLC



Tim Hendrix, CTS
Senior Account Manager

FORD AUDIO-VIDEO SYSTEMS, LLC



Mathew Scott Hall
Vice President

Voice: 972-241-9966
Email: hendt@fordav.com
Website: www.fordav.com

Proposal
For
City of Watauga, TX

A. INTRODUCTION

This proposal provides a description of the technology incorporated into the systems, lists the major equipment and components, and states the terms, conditions, and responsibilities. Individual components and quantities may be changed, deleted, added, or designated as optional to be added to the system at a future date.

B. DESCRIPTION OF WORK

Ford shall provide and install the following for the City of Watauga, Texas (Customer) in their Council Chambers remodel:

1. COUNCIL CHAMBERS CONTROL ROOM

a. EQUIPMENT RACK – VIDEO

- 1) One (1) HDMI/HD-SDI converter shall be provided and installed in the existing owner furnished equipment (OFE) rack for the purpose of converting an SDI signal output from the existing BlackMagic studio switcher to an HDMI signal.
- 2) Two (2) new card modules, one (1) HDMI input card and one (1) 2-channel HDMI output card, shall be provided and installed in the OFE Crestron DM matrix switcher located in the OFE equipment rack.
- 3) One (1) 1x4 HDMI to HDBaseT splitter shall be provided and installed in the OFE equipment rack for the purpose of sending the presentation system output signal to the projector and Lobby displays.
- 4) One (1) video conferencing codec shall be provided and installed in the existing equipment rack for the purpose of providing WebEx video and voice calls within the Council Chambers.

b. EQUIPMENT RACK – AUDIO

- 1) One (1) 8-input x 8-output with 8 flex channels digital signal processor (DSP) shall replace the existing DSP in the existing equipment rack for audio signal routing, equalization, feedback suppression, echo cancellation, and compression as needed.

c. CONTROL SYSTEM

- 1) The OFE Crestron control system shall be modified to provide the additional functionality described below:

- a) Cisco Codec – video and audio control
- b) Matrix Switcher – signal source and destination routing

2. THE CUSTOMER SHALL BE RESPONSIBLE FOR:

- a. The Customer shall have a representative (one [1] person selected by the Customer) available throughout the installation to make decisions on behalf of the Customer concerning the installation. The purpose is to ensure that communication between the Customer and Ford is accurate and responsive in the event of questions or problems that may arise during installation.
- b. The Customer shall clear the rooms involved in the installation of all activities during the periods of installation. Ford will work with the Customer to schedule the installation. Hours or days of work lost by the installation crew due to the inability to work as planned will be charged to the Customer based on the extra labor and expenses required.
- c. The Customer shall provide a facility that is prepared for the installation of electronic equipment. This includes a clean, dust-free, and air-conditioned environment that is secure and quiet. The Customer is responsible for providing a secure job site and for the cost of loss or damage to audio, video, and lighting equipment delivered by Ford to the job site.
- d. Existing or Customer provided conduit and raceway must be in good condition for use and be sized appropriately for the requirements of the project.
- e. Electrical Power

In the event that electrical power is required to be installed or conduit systems are required to support the audio/video systems, it is the responsibility of the Customer, at their expense, to provide complete and adequate electrical power and conduit, unless otherwise noted.
- f. Providing and preparing adequate space for the location of all equipment included in the system.
- g. Providing a clear area with adequate ventilation and air conditioning that maintains a room temperature not exceeding 75 degrees Fahrenheit in all rooms that are occupied by sound/audio/video/lighting equipment racks. Sound, audio, video, and lighting equipment produces heat which must be dissipated by ventilation or air conditioning. Prolonged operation at room temperatures above 75 degrees Fahrenheit will shorten the life of electronic equipment leading to premature failure of components.
- h. The Customer is responsible for the installation and registration of all software on OFE computers. Ford will provide the Customer with the system requirements for Ford provided software, but the Customer is responsible for installing it on the OFE PC's and/or OFE network. All software-related customer support shall be directly provided by the software manufacturer.

- i. Scaffolding or lifts provided by the Customer for use by Ford must meet OSHA safety standards and be satisfactory to meet the needs of the Ford installation personnel. In the event the Customer furnished scaffolding or lifts are unacceptable, Ford will present a change request detailing the additional cost and time extension required to complete the project.
 - j. Ford is not licensed for and does not perform any electrical, structural, or mechanical engineering; in addition, Ford does not provide carpentry, painting, masonry, ceiling, or carpet laying work.
 - k. The Customer shall advise Ford in writing prior to signing a contract agreement regarding the existence of asbestos in any area that Ford may be required to work. The Ford safety policy does not allow any employee to perform work if any asbestos hazard exists. If asbestos is detected, Ford employees will be removed from the location until the location can be made safe in compliance with OSHA standard (1926.1101). Any incurred expenses related to the stoppage of work will be the responsibility of the Customer.
- 3. FORD SHALL BE RESPONSIBLE FOR:
 - a. Providing line drawings for systems and equipment manuals electronically at no cost
 - b. Fabrication and installation of audio and video systems
 - c. Providing recommendations for electrical power and conduits, to be provided and installed by the electrical contractor, for the audio, video, and control systems
 - d. Installation of low voltage audio and video wiring for systems
 - e. Electronic testing of audio systems
 - f. Tuning of audio processors
 - g. Testing and alignment of video systems
 - h. Training
 - i. Warranty service
 - j. Providing as-built drawings with wire numbers and labels
- 4. PREVENTATIVE MAINTENANCE
 - a. Ford shall perform one (1) pre-scheduled service call, prior to the end of the warranty period, for the purpose of conducting routine preventative maintenance (PM) to check the general operation of equipment. This PM service call shall be scheduled in advance with the Customer, between 8:00 am and 5:00 pm Monday through Friday, excluding holidays, and does not include expendable materials used (e.g., light bulbs, lamps, light fixture lamps, fuses, batteries, portable connection cables, etc.) or system programming. This service will renew and be billed in advance on an annual basis unless the Customer notifies Ford of its intent to cancel. The Customer may cancel at any time prior to the work being

performed. PM visits are subject to adjustments based on the age of the equipment and Ford's labor cost.

- b. The Customer will provide a contact person that is authorized to answer questions and obligate the Customer if additional services are requested. The contact will be personally available to meet with the Ford technician and have knowledge of the equipment and systems to be inspected. The contact person will provide access to all areas and equipment rooms requiring inspection.

C. INSTALLATION SCHEDULE

1. Ford will provide system drawings, purchase and fabricate equipment, program control software, and do in-shop testing. The in-shop work will take approximately eight (8) to ten (10) weeks prior to the beginning of the actual installation at the Customer's facility. Ford estimates the actual on-site installation, test out, and commissioning of this project will take three (3) days. The total time required to complete the project is approximately ten (10) weeks from agreement execution. The completion of Ford's work depends upon the facility being secure, dust-free, air-conditioned, and quiet. Due to the ongoing presence of the Covid 19 virus and delays in the equipment supply chain, delays in the scheduled installation of AV systems can occur. Ford will keep you informed if scheduling changes become necessary.
2. For Ford to meet the above completion schedule, it is important the Customer warrants there are no interruptions in the availability of the job site for Ford to perform its work. Additionally, a failure of the Customer to respond timely to Ford's written requests for information or Customer-approval of submittals will delay the project. Ford schedules its work force weeks in advance in order to meet installation completion dates. The Customer shall notify Ford's Project Manager in the event the Customer changes the schedule or the Customer's other contractors fall behind in completing their portion of the work.

D. EQUIPMENT LIST

OWNER FURNISHED EQUIPMENT

Quantity	Description	Price	Extension
1.00	OFE AV SYSTEM	.00	.00
Sub Total			.00

AV EQUIPMENT (TIPS CONTRACT, #200904)

Quantity	Description	Price	Extension
1.00	DECI.MD-HX CROSS-CONVERTER/SCALER/RATE CO	305.00	305.00
1.00	CRES.DM-DA4-4KC TRAN,DM 8G/HDBT 4X SPLITTER	1,620.00	1,620.00
1.00	CRES.DMC-4KZ-HD CARD,HDMI 4K60 4:4:4 HDR INPUT	480.00	480.00
1.00	CRES.DMC4KZHDO CARD,2CH HDMI OUT,4K 60	1,080.00	1,080.00
5.00	COMP.MHD18G6BLK CABL,6',MICROFLEX,HDMI,18G,BLK	24.00	120.00
1.00	CISC.CUSTOM1 CISCO CODEC - SCAN QT 00110269	8,649.00	8,649.00
1.00	QSC.SLQSE110P SCRIPTING ENGINE LICENSE	251.00	251.00
1.00	QSC.SLQUD110P UCI DEPLOYMENT LICENSE	125.00	125.00

1.00	QSC.CORE110F DSP, 8IN 8OUT 8FLEX AEC	2,753.00	2,753.00
		Sub Total	15,383.00

HARDWARE < NON-CONTRACT>

Quantity	Description	Price	Extension
1.00	CRIMPS, TIES & FASTENERS	50.00	50.00
1.00	CABLES & CONNECTORS	200.00	200.00
1.00	EQUIPMENT RACK HARDWARE	200.00	200.00
		Sub Total	450.00

INTEGRATION SERVICES (TIPS CONTRACT, #200904)

Quantity	Description	Price	Extension
	DESIGN, ENGINEERING, FABRICATION, PROJECT MANAGEMENT, INSTALLATION, COMMISSIONING, TRAINING AND WARRANTY	9,763.76	9,763.76
		Sub Total	9,763.76
		Merchandise:	15,833.00
		Integration:	9,763.76
		Other:	.00
		Freight:	.00
		Sales Tax:	.00
		Total Amount:	25,596.76

E. COST SUMMARY AND TERMS

PROPOSED TOTAL: \$25,596.76

PREVENTATIVE MAINTENANCE: \$500.00

ALTERNATIVE LEASING OPTION: \$805.00 (estimated monthly payment)

TAXES: No taxes have been included in the project 'Total Amount,' unless specifically showing on the 'Sales Tax' line. All taxes are the responsibility of the Customer. If a tax is charged to Ford, the Customer will be responsible for reimbursing Ford for the cost.

TERMS: The Customer shall issue a purchase order in accordance with the terms and conditions of the **TIPS Contract, #200904**.

100% invoiced upon completion.

All invoices are due Net 30.

ALTERNATIVE LEASING OPTION:

As an alternate to the payment terms identified above, Ford offers a leasing option for the equipment and work defined in this proposal. This proposal provides an approximate monthly payment for hardware, software, and services based upon the contract type and duration of the projected payments in months. Additional monthly durations are available upon request. The pricing in this proposal is valid for thirty (30) days from the date on this proposal.

The payment for a 36-month lease, based on the 'Total Amount' shown above is approximately, \$805.00, subject to credit approval and terms of the lease agreement. This amount is subject to change based on the final lease agreement conditions, the stipulations of the leasing company, and any contract change orders. The estimated monthly lease payment does not include any optional pricing outlined in this proposal. The actual lease payment and duration of the lease will be confirmed upon final selection of options by the Customer. Contract change orders can be added to the lease amount. Any change orders will affect the financed payment amount, duration of the lease agreement, or both the financed amount and lease agreement duration.

If the Customer finances this system, Customer's payment obligations for the system will be with the finance company. The Customer will have no obligation to pay Ford upon Customer granting authorization to the finance company to disburse funds to Ford.

CC: Unless otherwise prohibited by law, a 3% bank interchange fee will be charged for using a credit card for payment.

PRICE: The price stated above for this project is based upon the complete system being purchased and installed at one time. In the event the Customer selects to purchase less than the total project, delays purchase of any portion of the system, requires that the system be installed in phases, or delays the installation; Ford reserves the right to charge for additional labor, travel, and overhead. The price is valid for thirty (30) days from the date of this proposal.

COMMENCEMENT OF WORK:

Ford must receive the enclosed contract signed by the Customer and/or a Customer provided and Ford approved purchase order that specifically accepts and includes ALL terms and conditions outlined in this proposal, along with any payment terms and provisions included in this proposal before the agreement will be considered fully accepted and executed by Ford. Receipt of the above-mentioned documents and payments is a condition precedent to Ford's obligation to perform any work contemplated under this contract, including engineering the system, purchasing the equipment and scheduling the work crews for installation. In the event the Customer fails to pay Ford within the terms above, Ford reserves the right to stop work on the project until all payments are received by Ford in accordance with the terms.

CREDIT: This proposal shall not be deemed as accepted by Ford until the executed contract is returned to Ford's Credit Center for final review and acceptance.

CHANGES: Any Customer Change Orders (CCO) must be approved in writing by the Customer prior to execution by Ford and are subject to the credit terms of this agreement.

NON-SOLICITATION:

The Customer and Ford mutually agree, because of the high cost of training an employee, that neither party shall solicit the employment of any employee of the other party, and shall not employ any employee or any person who was an employee of the other party at any time during the relationship between the parties or for a period of one (1) year following the termination of any relationship between the parties. In the event of a breach of this section, the breaching party agrees to pay the other party an amount equal to the hired employee's annual wages as an agreed upon cost to replace the employee.

F. GUARANTEES AND LIMITATIONS OF WARRANTIES

1. FORD GUARANTEES THE FOLLOWING:

- a. Equipment will be new, unless noted otherwise.
- b. All workmanship provided by Ford will be free of defects and will be repaired, free of charge, for a period of one (1) year from the date of substantial completion or the first date of beneficial use of the system, whichever date occurs first. Substantial completion shall be defined as the point where the work, or designated portion thereof, is sufficiently complete so that the system can be used for its intended purpose.
- c. All equipment and materials provided by Ford that were manufactured by other companies will be warranted under the standard warranty terms of the original manufacturer.
- d. The warranty does not include nor cover expendable materials used with the system installation (e.g., light bulbs, lamps, light fixture lamps, fuses, batteries, portable connection cables, etc.).
- e. Ford is not responsible for the reliability of systems that communicate using wireless technology. The performance of equipment utilizing wireless communications is inherently unreliable and will experience "drop outs", distortion, and loss of connectivity from time to time. Interference from other forms of radio frequency transmissions, such as radio and television broadcasts, cell phones, and computer wireless networks, is probable, and should be expected.
- f. Ford is not responsible for the performance, testing, or configuration of owner-furnished data networks that are used to transmit audio, video, and lighting program data and control signal data. IP-based videoconferencing systems rely upon data networks that can provide consistent bandwidth for the transmission. Videoconferencing that is transmitted over the Internet is subject to the intermittent and unreliable nature of the public network. In the event that the Customer's network is found to be the cause of defects in the quality of the audio/video signals, is unreliable, or has insufficient bandwidth to support the A/V/L system and Ford's network engineers are required to troubleshoot or configure the Customer's network, the cost of this service will be invoiced to the Customer.
- g. The term "Software" as used in this document includes all editable source files, un-editable compiled files, graphical user interface files and functionality, audio digital signal processor (DSP) files, in whole and in part, produced under the terms of this agreement.

Unless otherwise expressly agreed in writing, all Software created by Ford remains the property of Ford, and the Customer is hereby provided a license to use the Software for this project only. The Software may not be used on any other project, nor used for any purposes outside of this project, nor shared nor disclosed to anyone who is not an employee of the Customer's company without prior approval from Ford.

- h. Any adjustments made by the Customer or the Customer's agent(s), other than routine operational adjustments, including adjustments or changes to the Software, will not be covered under this warranty statement. Re-calibration of settings will be considered by Ford to be billable time to the Customer at Ford's standard engineering rates.
 - i. Procedures such as routine preventative maintenance functions (e.g., keeping filters clean, keeping system environment free from foreign materials, etc.) are the responsibility of the Customer and is not included within this warranty agreement. Failure on the part of the Customer to perform these routine maintenance functions shall void this warranty.
 - j. If warranty work is necessary within the warranty period, Ford will, at its option, repair the defective equipment or return it to the manufacturer for repair.
 - k. Repairs, modifications, or other work performed by personnel not authorized by Ford during the period of warranty on any equipment of the system, including any changes to the Software, will invalidate the warranty.
 - l. Ford will not be responsible for damages or cost of repairs due to modifications, adjustments, or additions to the system performed by personnel not authorized by Ford prior to acceptance of the system by the Customer.
 - m. Ford may withhold warranty service in the event that the Customer has an unpaid balance due to be paid to Ford.
2. OWNER-FURNISHED EQUIPMENT (OFE):
- a. Ford's intent is to provide a complete system including all equipment. In some cases, the Customer may own equipment which they desire to be included with the installation. Ford identifies this as OFE.
 - b. The use of OFE is solely for the convenience of the Customer and is not included in the warranty or guarantee provided.
 - c. Ford shall take reasonable care in handling OFE and install it according to standard industry practices; however, Ford takes no responsibility for the operation, performance, appearance, or effects of OFE before, during, or after its integration into the system. Ford reserves the right to accept or reject OFE based on the equipment's service record, or lack thereof, poor condition, or out of date software/firmware. Ford will not accept OFE that is purchased by the Customer to replace equipment that is specified in this proposal.
 - d. In the event that OFE does not function properly, Ford shall notify the Customer to determine if the OFE is to be a) repaired, b) an alternate unit provided by the Customer, c) the unit is not to be used, or d) Ford is to provide a new unit. Ford shall provide a cost to

the Customer for the work to be done. The Customer will authorize any additional costs to the job.

- e. The existing equipment, removed as a courtesy by Ford, that is not being reused, shall be handed over to the Customer. Ford is not responsible for the existing equipment or its condition when received by the Customer.

G. TRAINING AND DOCUMENTATION

1. TRAINING INCLUDED:

- a. Ford will host a training session near the completion of installation. All system users and interested persons should attend this training so that all questions can be answered during this training.
- b. During the training, if requested, Ford personnel will attend the initial first use of the system and assist the Customer's operators and users in the operation of the Ford-installed system.
- c. Ford shall provide a training agenda for scheduled training.
- d. Ford shall provide a quick start guide (QSG) for each room type. The QSG is a generic, brief description, of how to operate the system. One (1) copy of a laminated document, for each room type, shall be provided to the Customer.

2. ADVANCED TRAINING - OPTIONAL:

Ford is committed to providing the highest quality and most modern training experience possible to its Customers. In addition to the training included with this project, for an additional fee, Ford offers multiple, customizable options to fit the needs of any Customer. The possible programs include:

- a. Ford shall supply a training video consisting of a visual tutorial or tutorials, if multiple room type videos are purchased, that will explain how to operate specific AV systems. This training tutorial, narrated by a Ford trainer, is a self-paced, always-available, online video, viewable on any mobile device which give the learner a step-by-step process on how to use the technology.
- b. In consultation with the Customer, Ford will develop and execute a custom curriculum and curriculum schedule.
- c. Ford will provide in-person presentation(s), as needed, including presentation materials such as PowerPoint or Prezi presentation.
- d. Ford will develop a custom Orientation & Operations Handbook, which shall include detailed, user-friendly information on solutions, functionality, troubleshooting, curriculum, and other useful reference materials.
- e. The Ford Training Center also highly recommends follow-up training sessions six months to a year following the initial session(s) to ensure that all concepts are anchored and being

employed by each user as well as providing opportunities for new employees to receive the same level and style of training existing employees received. The Ford Training Center will work with customers to develop a long-term training strategy and/or ongoing training curriculum.

- f. Additional materials include documents in electronic format, additional hard and/or laminated copies of Quick-Start Guides and Orientation & Operations Handbooks, as well as CDs or DVDs of these curriculum materials.
- g. All training curriculum and components will be developed and executed by a Ford Master Trainer.
- h. The components of the optional training are to be determined by the Customer, Account Manager, and Ford Master Trainer to meet the needs of the Customer. The cost of the additional materials and training is based on the desired program.
- i. Please contact Ford to receive a customized price quote on the Advanced Training Program option.

H. BUILDING CONSTRUCTION AND SYSTEM INSTALLATION

1. VISUAL INSPECTION:

- a. This proposal is based upon a visual inspection of the site conditions. It is agreed that some buildings may have inherent design and/or construction that is not visibly recognizable and is outside of normal standard and customary building procedures. If the walls, floors or ceiling are found to be constructed in a manner that wire cannot be pulled or equipment cannot be mounted or otherwise installed without labor or materials in excess of those anticipated by both parties and proposed herein, the Customer agrees to be responsible for any adjustments in the labor and materials required to perform the installation.

2. EXISTING CONDITIONS:

- a. Acoustics and Noise

In facilities where Ford is providing a sound or audio system, the Customer is responsible for providing an environment free of ambient noise and excessive reverberation and echoes.

- 1) Typically, ambient noise is created by HVAC systems (Heating, Ventilation, and Air Conditioning), plumbing, or other mechanical systems in the building. In general, Ford recommends that the ambient noise sound pressure level not exceed NC35 (Noise Criteria) or 35 dB A scale.
- 2) Long reverberation times and echoes are normally the result of hard wall, floor, and ceiling surfaces found in some rooms. Typically, Ford recommends that the reverb time does not exceed 1.5 seconds where the primary use is the communication of speech. The production of other types of music may require longer reverberation times. In the event that echoes exist, absorptive or diffusive

wall and ceiling panels may be required to eliminate or minimize the detrimental effects of the echoes.

- 3) Ford is not responsible for any costs related to reducing the ambient noise or modifying the acoustics of the Customer's facilities.

I. ACCEPTANCE

1. The Customer's personnel will be notified by Ford upon completion of the installation.
2. Demonstration of system performance will be during the training session.
3. Participants at the performance demonstration shall include personnel representing Ford and personnel representing City of Watauga who are authorized to accept the system as complete and make final payment.

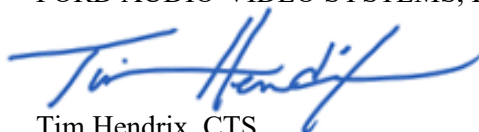
This proposal shall not be deemed as accepted by Ford until the executed contract is returned to Ford's Credit Center for final review and acceptance. If a purchase order is required by the Customer, it must be transmitted with the signed install agreement for review and acceptance.

This proposal contains confidential pricing, design, engineering, and installation information that is proprietary to Ford. It is provided for your private use, and is not to be disclosed, in part or in whole, without the express, written authorization of Ford.

We appreciate the opportunity to work with you on this project. If you have any questions or need additional information, please contact me at 972-241-9966.

Sincerely,

FORD AUDIO-VIDEO SYSTEMS, LLC



Tim Hendrix, CTS
Senior Account Manager

Voice: 972-241-9966
E-mail: hendt@fordav.com
Website: www.fordav.com

SYSTEM INSTALLATION AGREEMENT

Between

CITY OF WATAUGA, TX

and

FORD AUDIO-VIDEO SYSTEMS, LLC

This is to signify that City of Watauga, Texas and Ford Audio-Video Systems, LLC have entered into a contract, in the amount of \$25,596.76, for the purchase and installation of equipment and services described in the attached proposal.

PREVENTATIVE MAINTENANCE:	\$500.00	_____
		Customer Accepts
ALTERNATIVE LEASING ESTIMATED MONTHLY PAYMENT:	\$805.00	_____
		Customer Accepts

City of Watauga, Texas and Ford Audio-Video Systems, LLC, by and through their respective signatories to the Agreement, each represent to the other that they are authorized to enter into this Agreement.

We do both agree to abide by the terms and conditions of this Agreement.

FORD AUDIO-VIDEO SYSTEMS, LLC

CITY OF WATAUGA, TX

Tim Hendrix, CTS
Senior Account Manager

Authorized Signature

Mathew Scott Hall
Vice President

Printed Name and Title

Date

Date

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Ford Audio-Video Systems LLC
IRVING, TX United States

Certificate Number:
2021-814339

Date Filed:
10/19/2021

Date Acknowledged:
10-20-2021

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

City of Watauga, TX

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

2021-TH245377
Chambers WebEx

4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary

5 Check only if there is NO Interested Party.



6 UNSWORN DECLARATION

My name is Tim Hendrix, and my date of birth is 02/24/65.

My address is 4901 Statesman Dr., Irving, TX, 75063, USA.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in Dallas County, State of Texas, on the 19th day of October, 20 21.
(month) (year)


Signature of authorized agent of contracting business entity
(Declarant)



AGENDA MEMORANDUM

DATE: October 18, 2021
TO: Honorable City Council Members
FROM: Marcia Reyna, Human Resources and Civil Service Director
THROUGH: Arthur Miner, Mayor
SUBJECT: Pursuant to Texas Government Code Section 551.074 to deliberate the appointment or employment and compensation of a City Manager

BACKGROUND/INFORMATION:

The City Manager Search Sub-committee selected a group of finalists to interview for the position of City Manager. Interviews were held on October 15, 2021.

FINANCIAL IMPLICATIONS:

The City Manager position is budgeted in the FY2021-22 budget.

RECOMMENDATION/ACTION DESIRED:

It is respectfully requested that the City Council provide direction regarding the recruitment of the City Manager position.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

None

REVIEWED BY:

Marcia Reyna, Human Resources and Civil Service Director

Caroline Kelley, City Attorney

Robert Parker, Interim City Manager

Terri Johnson, Interim City Secretary

Approved - 10/18/2021

Approved - 10/18/2021

Approved - 10/18/2021

Final Approval -
10/18/2021

Approved as to form for inclusion on Agenda



AGENDA MEMORANDUM

DATE: October 18, 2021
TO: Honorable City Council Members
FROM: Marcia Reyna, Human Resources and Civil Service Director
THROUGH: Arthur Miner, Mayor
SUBJECT: Consideration and possible action regarding the appointment or employment and compensation of a City Manager

BACKGROUND/INFORMATION:

The City Manager Search Sub-committee selected a group of finalists to interview for the position of City Manager. Interviews were held on October 15, 2021.

FINANCIAL IMPLICATIONS:

The City Manager position is budgeted in the FY2021-22 budget.

RECOMMENDATION/ACTION DESIRED:

It is respectfully requested that the City Council take possible action on the item discussed during Executive Session.

ATTACHMENTS/ SUPPORTING DOCUMENTATION:

None

REVIEWED BY:

Marcia Reyna, Human Resources and Civil Service Director

Caroline Kelley, City Attorney

Robert Parker, Interim City Manager

Terri Johnson, Interim City Secretary

Approved - 10/18/2021

Approved - 10/18/2021

Approved - 10/18/2021

Final Approval -
10/18/2021

Approved as to form for inclusion on Agenda