



Operations Committee

Open Meeting

Friday, January 27, 2023 at 8:30 AM

Virtual Meeting

211 North Broadway, 6th Floor

St. Louis, MO, 63102



Operations Committee - Open Meeting - January 27, 2023 at 8:30 AM

Notice of Meeting and Agenda

1. Call to Order	Approval	Chair Windmiller
2. Roll Call		M. Bennett
3. Public Comment	Information	Chair Windmiller
A. Public Comments as of 01-26-2023 - 3		
4. Approval of Minutes of the October 14, 2022 - Operations Committee, Open Meeting	Approval	Chair Windmiller
A. Draft Minutes - October 14, 2022 - Operations Committee, Open Meeting - 7		
5. Contract Modification - On Call GEC Services	Approval	T. Curran / C. Poehler
A. Briefing Paper - 13		
6. Contract Modification - Sole Source Contract with Motorola Solutions - Upgrade Obsolete Dispatch Console Network	Approval	T. Curran / D. Curry
A. Briefing Paper - 14		
B. Motorola Change Order No. 3 - 16		
C. Motorola Proposal - 19		
7. Contract Modification - 20-SS-126951-CB/DR Public Address/Customer Information System (PA/CIS) Upgrades – Security Announcements Proposal	Approval	T. Curran / D. Curry
A. Briefing Paper - 67		
8. Contract Award - Electronic Fare Collection System	Approval	T. Curran
A. Briefing Paper - 68		
B. Masabi Proposal Fact Sheet - 70		
C. Masabi Operational Costs and Fees - 71		
9. Unscheduled Business	Information	Chair Windmiller
10. Operations Report	Information	C. Stewart
A. Metro Service Performance Summary - 72		
B. Workforce Update - 75		
11. President/CEO Report	Information	T. Roach
12. Call for the Dates of Future Board & Committee Meetings	Information	M. Bennett
13. Adjournment	Approval	Chair Windmiller

Name: Jim Zavist
Topic: Via Metro STL

Comments: I've been noticing that the vehicles/minivans Via Metro STL is using around St Louis have a variety of out-of-state license plates (Colorado, New Jersey, Florida, etc.). As a taxpayer-funded agency, I would have thought that Metro would have required your vendor to register their vehicles locally and to pay any required local taxes. I'm guessing that the excuse will be that these are either leased vehicles or that it was not a requirement in the RFP/contract. In either case, it's a bad look for an agency that continues to struggle with funding.

Name: Shannon Villa
Topic: Metro Input from Riders

Comments: Metro needs to solicit public feedback and have a hearing before there are any service changes. Metro just also involve the public in its strategic future, plan, purchase of vehicles, etc. Here is a link to DC Metro #yourmetro: https://www.wmata.com/about/news/Strategic-Plan-The-Way-Forward.cfm?fbclid=IwAR2N1-eB8kyGrDwTMh1xhsbgKSpQ3gshDCCFdYDVtOc17qQ3HjJu5_Ly5E&mibextid=Zxz2cZ

Name: Patrick Douglas Richmond
Topic: Rickshaws and double-decker buses as another form of micro transit

Comments: In some countries, there is a small vehicle called a "rickshaw" and what this strange vehicle is, is that it is a bicycle or a motorcycle with a passenger cabin on its back or on a specially built chassis. Due to their low capacity, they can be given assignments such as running on routes that have very small ridership and due to their small size, they can be used as small neighborhood shuttles since they can even fit on narrow streets. They cost less than a minivan. They have great gas mileage, and although they are designed to go pretty slow, and they can only reach a top speed of 50 miles an hour, we could put those things to work on covering areas like running between Kirkwood and Oakville via the side streets, or by running from Manchester Road down to downtown Eureka. They can also be a tourist attraction just like the arch. The way the system could work is that just like Via, the person could use their phone, and to pay the fare, there would be two or three ways to pay. Bus pass, MetroLink ticket, or cash since some people don't carry credit cards. Also to help draw tourism, would be to create some routes that would utilize double-decker buses. They could be put on routes like a shuttle in Forest Park or a service that would connect many St. Louis County parks, running between Shrewsbury all the way out as far as Eureka. In Chiba, Japan, they use suspended monorails where the bogeys are housed in a casing and the passengers can really get a good view of the city. But the downside to that is that it would be very expensive, such as building the track, elevators, escalators, how to plan on where the route will go although monorails can even glide over houses!

Name: Shannon Villa

Topic: Update Since Last Meeting- Improvements Seen and Next Steps

Comments: I appreciate being provided more detailed data on Metrobus and Metrolink ridership similar to what I was provided years ago by the same Metro resource.

I am assured by Mr. Stewart that a dashboard is in the works to provide more detailed data or ability to drill-down data on missed trips, ridership, etc to allow for better understanding of system performance metrics.

I would still like to get the public easy access to what is currently an internal trouble log even cited by Mr. Stewart in this month's Operations Report toward the end of this packet to give more details on missed trips showing missed trip percentages on key routes and appreciate the recognition of these routes as having high missed trip percentages and that per the Operations Report, "These routes are critical to the overall Metro Transit System. These routes serve key regional neighborhoods protected by the Federal Transit Association's (FTA) Title VI regulations associated with the Civil Rights Act. I wonder if this comment was added in part to due to any complaints or findings raised regarding FTA Title VI regulations.

A web page on daily missed trips that can be referred to historically should be added.

The updates of missed trips on the Transit App is still sporadic and not frequently updated. Since the November service change there seems to still be more than expected number of missed trips that I thought the service change would be able to reduce but the last week or so this month of January it does seem that missed trips have been drastically reduced particularly on some of the problem routes mentioned in the Operations Report this month.

I am encouraged with the increased transparency that improvements will continue this 2023 and look forward to those as this will be critical to reversing and downward trend in ridership for Metro St. Louis when compared to peer cities such as Kansas City and Nashville where missed trips are fewer and almost non-existent. In fact both Kansas City and Nashville have both increased service and Nashville WeGo Transit is now close to 85% of pre-pandemic ridership where as Metro St. Louis is closer to 50-60% still with some key routes like the 70 Grand at a disappointingly below 50% of pre-pandemic ridership.

Key point I would like to see improvement by the next meeting is the need for more publicly accessible restrooms and the full reopening of all transit centers with an indoor waiting area and public restroom so the public can best make use of these amenities Metro had provided pre-pandemic. The in-service cleaners placed along the Metrolink system are appreciated.

I did discuss my concerns on "Loop riding" with a manager and she re-assured me that staff would be better trained on what "Loop Riding" really is. Essentially if someone has valid fare or paid a fare they are not loop riding.

Name: Shannon Villa

Topic: Our Metro- The System for The Riders and Public

Comments: We should take the example of the Washington, DC Metro area WMATA "YourMetro" campaign which I have also extended to my Facebook group being renamed to It's Our St. Louis Metro Transit Group #ourMetro: <https://www.facebook.com/groups/4675492252472079>

The intent of this emphasis is that this is the system for the people it serves and thus it is "Our Metro" or those working for Metro would term it as the customers' Metro, thus WMATA's emphasis on, "Your Metro."

With "Your Metro" push the public should be better involved in decision making anywhere in the system where the public is affected whether directly or indirectly.

For example, in this packet I see information on the upcoming fare validation system and would like to see that information better shared with the public as this site: <https://www.bistatedev.org/public-meetings/> is nowhere linked to <https://www.metrostlouis.org/> and vice-versa so most riders are not aware of this way to provide public comment evidenced by the very low amount of public comment published for each meeting. Public involvement should also be key when purchasing new vehicles as Atlanta MARTA has done with soliciting public feedback and sharing . See this site: <https://www.itsmarta.com/yourride.aspx#:~:text=The%20rail%20cars%20are%20scheduled,a%20pilot%20car%20in%202023.>

I would like to see more information shared along with riders on the upcoming fare system implementation and real-time information coming to Metrolink as well as any planned service changes, budget, strategic plan, etc as WMATA has done here: <https://www.wmata.com/about/news/Strategic-Plan-The-Way-Forward.cfm>
<https://www.wmata.com/initiatives/budget/>
<https://www.wmata.com/about/public-hearings/>

Name: Shannon Villa

Topic: Metro Take Example from Nashville MTA On Staffing Innovations

Comments: Nashville MTA Peer Learning Opportunity: See page 3 or 4 here: https://www.wegotransit.com/assets/1/27/Final_MTA_Board_Book_12.15.22_FINAL.pdf?1455

d. Operations Dispatch Overview (OF-D-22-023): Dispatch Manager Karl Dean presented the following item for discussion:

Karl Dean discussed the functions of Dispatch and its impacts on the organization and provided an overview of ongoing and planned improvements. With the upcoming and ongoing Better Bus improvements and enhancements to the service, it is crucial that dispatch continues its innovative approaches to managing the day-to-day operation to both improve service reliability and enhance efficiency. Mr. Dean's presentation outlined a series of operational improvements that have been made in the Dispatch function, with a key element being the reallocation of "extra-board" operators to days of

week and times of day when they can be more effective. As a result, even though our Operator shortage is just as acute as it was in mid-2019, lost service trips have been reduced by over 75% from that time. Jessica Dauphin said that the bus operator shortage is a nationwide issue and some other transit agencies are having to cut routes and or pull back service, but she's happy to see that our shortages are nowhere near some of our peer agencies, and that we've actually been able to add service, even if we haven't been able to add more service as quickly as we would like.

Name: Shannon Villa

Topic: Aspirational Peer: Nashville MTA WeGo Transit

Comments: See Page 22 on this link:

https://www.wegotransit.com/assets/1/27/FINAL_MTA_Board_Book_11.17.20221.pdf?1443

Percentage of Pre-Pandemic Ridership Very Impressive Frequent Service Mostly Every 10 min or less weekdays daytime and no less than every 20 min or less evening and weekends leads to very impressive percentages below:

3/5 West End 85.1%
4 *** Shelby 66.1%
7 *** Hillsboro 86.3%
22 Bordeaux 69.0%
23 *** Dickerson Pike 107.7%
50 Charlotte Pike 193.5%
52 Nolensville Pike 103.2%
55 Murfreesboro Pike 128.0%
56 Gallatin Pike 87.9%

Frequent Service Route Totals 96.1%

6 Lebanon Road 88.9%
8 8th Avenue South 98.2%
9 Metrocenter 60.8%
14 Whites Creek 59.8%
17 12th Avenue South 81.9%
18 Airport/Elm Hill 106.4%
19 Herman 69.4%
28 Meridian 59.6%
29 Jefferson 80.0%
34 Opry Mills - Music Valley 85.6%
41 Golden Valley 61.8%
42 St. Cecilia - Cumberland 70.0%

**BI-STATE DEVELOPMENT
OPERATIONS COMMITTEE MEETING
OPEN SESSION MINUTES
(Virtual Meeting)**

October 14, 2022, immediately following Special Meeting

Operations Committee Members participating via Zoom

Rose Windmiller, Chair
Derrick Cox
Irma Golliday
Vernal Brown

Other Commissioners participating via Zoom

Terry Beach
Herbert Simmons
Fred Pestello
Nate Johnson
Sam Gladney
Debra Moore

Staff participating via Zoom

Taulby Roach, President and Chief Executive Officer
Brenda Deertz, Director of Executive Services
Barbara Enneking, General Counsel
Myra Bennett, Manager of Board Administration
Thomas Curran, Executive Vice President – Administration
Tammy Fulbright, Executive Vice President, Chief Financial Officer
Crystal Messner, Chief Audit Executive
Charles Stewart, Executive Director Metro Transit
John Langa, Vice President Economic Development
Chris Poehler, Vice President Capital Programs
Jessica Gershman, Assistant Executive Director Planning & Systems

Others participating via Zoom

Karen Snead, ASL Interpreter
Angelica Bechtold, ASL Interpreter

1. Open Session Call to Order

8:36 a.m. Chair Windmiller called the Open Session of the Operations Committee Meeting to order at 8:36 a.m.

2. Roll Call

8:36 a.m. Roll call was taken, as noted above.

3. Public Comment

8:36 a.m. Chair Windmiller asked Myra Bennett, Manager of Board Administration, if any speaker cards had been received for today's meeting. Ms. Bennett noted that six (6) public comments card were submitted by Mr. Shannon Villa. Topics of speaker cards varied and included the following:

- Topic: No Response from Multiple Metro Leadership Persons
- Topic: Lyft Accommodations for Missed Trips
- Topic: Missed Trips and Separately "Loop Riding"
- Topic: Wellness Checks to Bus Operators Instead of To Passengers Who Need It More
- Topic: Poor 70 Grand Operations Continues
- Topic: Proposal to Present Issues from Observations to Metro and Board

Chair Windmiller acknowledged that the public comments had been distributed to the Board of Commissioners for review, are contained in the meeting materials, and are included on the website.

4. Approval of the Minutes of the August 19, 2022 - Operations Committee, Open Meeting

8:38 a.m. The minutes of the August 19, 2022, Operations Committee, Open Meeting were provided in the Committee packet. A motion to approve the minutes was made by Commissioner Golliday and seconded by Commissioner Brown. **The motion passed unanimously.**

5. 2022 Annual Surplus Property Holdings

8:39 a.m. A briefing paper was included in the meeting materials, presenting to the Operations Committee, for discussion, acceptance, and referral to the Board of Commissioners for approval, a report reaffirming and approving that the properties included in the meeting materials, noted as Table 1, are not required for BSD purposes, and may, therefore, be declared surplus and subject to sale, lease, or the grant of other property rights. John Langa, Vice President Economic Development, gave an overview of this item.

A motion to approve this agenda item, as presented, was made by Commissioner Moore and was seconded by Commissioner Cox.

The motion passed unanimously.

6. Contract Modification and Time Extension - East Riverfront Stair Replacement Project

8:40 a.m. A briefing paper was included in the meeting materials, presenting to the Operations Committee for discussion, and referral to the Board of Commissioners for final approval, a request that the President & CEO approve Contract Modification No. 2 with The Harlan Company for the work at the East Riverfront MetroLink Station, in an amount not to exceed \$500,000.00, extending the total contract amount to \$1,236,300.00, and extending the contract completion date to May 1, 2023. Chris Poehler, Vice President Capital Programs, gave an overview of this item, noting that there have been some operational delays, as well as a site issue regarding the foundation, which has resulted in a request for a time and cost extension relating to this project. Mr. Poehler noted that the Agency would like to add additional work items to the contract including a soil liquefaction study and replacement of lighting and the tactile warning strip at the upper platform. Commissioner Cox posed questions regarding the original project

cost. Mr. Poehler reported that the original project cost was approximately \$700,000. Chair Windmiller asked how long the project will take to complete. Mr. Poehler stated that the project will take approximately 6-8 weeks.

A motion to approve this agenda item, as presented, was made by Commissioner Moore and was seconded by Commissioner Brown.

The motion passed unanimously.

7. Contract Modification: Microtransit Project Contract Extension

8:46 a.m. A briefing paper was included in the meeting materials, requesting that the Operations Committee accept, and forward to the Board of Commissioners for approval, a request that the President & CEO approve a contract modification, for the continued operation of the microtransit service pilot program through the end of the current contract year (May 31, 2023), in an amount not to exceed \$1,973,916. Jessica Gershman, Assistant Executive Director Planning & Systems, gave an overview of this item, noting that the original contract was for a 12-month pilot period as a base year, plus three option years, for BSD to renew at its discretion, at a not-to-exceed amount of \$5,866,886.00. She stated that the not to exceed amount was calculated based on a level of service for the base year, as the expectation for this pilot project was to test alternative mobility options that would complement the Agency's existing fixed route service throughout the region, with little to modest anticipated service growth. She noted that, since that time, the program has expanded due to pandemic and workforce shortages. Commissioner Windmiller asked for clarification of costs. Ms. Gershman stated that the Agency is requesting an additional \$1,973,916 to complete the current contract year, which ends May 31, 2023. Chair Windmiller posed questions regarding grant funding for the project. Ms. Gershman stated that the Agency has received approximately \$700,000 in grant funding.

A motion to approve this agenda item, as presented, was made by Commissioner Brown and seconded by Commissioner Cox.

The motion passed.

8. Sole Source Contract Award – Light Rail Vehicle Brake Caliper Overhaul

8:51 a.m. A briefing paper was included in the meeting materials, requesting that the Operations Committee accept, and forward to the Board of Commissioners for approval, a request to allow the President & CEO to enter into a sole source contract with Knorr Brake Company for light rail vehicle brake caliper overhaul services, for an amount not to exceed \$200,000.00 for four (4) base years. Tom Curran, Executive Vice President Administration, gave an overview of this item noting that Metro Transit operates and maintains a fleet of Light Rail Vehicles (LRV), and each LRV contains four Power Truck Brake Calipers and two Center Truck Brake Calipers. He stated that, as part of Metro's Reliability Centered Maintenance (RCM) program, Metro plans to overhaul brake calipers approximately every 800,000 miles. He noted that the Agency previously issued a solicitation for this service, and the contract was awarded to Knorr Brake; however the contract expired in 2021. Mr. Curran reported that a new competitive procurement process will be conducted in late 2022 or early 2023, once BSD has determined if a new contract is needed. He noted that, through the lifecycle of the existing fleet of LRVs, all brake calipers have been overhauled by the OEM exclusively. Chair Windmiller posed questions regarding the cost. Mr. Curran noted that the Agency is requesting \$200,000 for the four base years.

A motion to approve this agenda item, as presented, was made by Commissioner Beach and was seconded by Commissioner Cox.

The motion passed unanimously.

- 9. Second Amendment to the Second Memorandum between Bi-State and the City of St. Louis 8:53 a.m.** A briefing paper was included in the meeting materials, requesting that the Operations Committee accept, and refer to the Board of Commissioners for approval, the Second Amendment to the Second Memorandum of Agreement between BSD and the City of St. Louis, to permit BSD to locate the Riverboats on the Riverboat Mooring Site, the Dock Barge on the Dock Barge Mooring Site, and the Heliport on the Heliport Site, for a period of five years, until December 31, 2027. Barbara Enneking, General Counsel, gave an overview of this item, noting that the City has agreed to this amendment. Commissioner Cox stated that he participated in a tour of the Riverfront with the Agency in the past, and he is glad that the Agency decided to keep these services. He stated that he would like to see Bi-State Development invest in additional marketing for these attractions. President and CEO, Taulby Roach, stated that these attractions have done well this season, and agrees that additional marketing is needed in the region.

A motion to approve this agenda item, as presented, was made by Commissioner Cox and was seconded by Commissioner Golliday.

The motion passed unanimously.

- 10. Unscheduled Business 8:57 a.m. There was no unscheduled business.**

- 11. Operations Report 8:57 a.m.** An operations report for Metro Transit was included in the Committee packet. Charles Stewart, Executive Director Metro Transit, provided a summary of the report for the Committee, noting that service is slowly returning to pre-pandemic levels. He noted that a service adjustment is scheduled for November. Commissioner Moore asked what baseline the Agency is seeking to achieve. Mr. Stewart stated that the Agency is in the process of trying to determine the new “baseline”, as ridership has significantly changed since the pandemic, and there have also been significant changes, due to the workforce shortages. Chair Windmiller stated that she commends Mr. Stewart for his efforts to “right size” transit services, and asked if the Board will receive a report, prior to any final decisions. Mr. Stewart stated that yes, the Board will be briefed, prior to any decisions. Commissioner Simmons stated that he would like to commend Mr. Stewart and Ms. Fulbright for their hard work, and for working with Ken Sharkey (SCCTD) regarding transit service issues.

- 12. President/CEO Report 9:03 a.m.** Bi-State Development President/CEO, Taulby Roach, asked Mr. Stewart to provide an update on service related to the flood recovery process. Mr. Stewart gave an update regarding the Blueline MetroLink system. He noted that the Agency continues to work to secure some of the needed replacement parts, and have been informed that it may take six months to obtain some of the parts, due to supply shortages. He reported that progress is being made, and with the services changes in November, riders should experience much better connections. President and CEO

Roach stated that he has been pushing hard to get services restored. He stated that the bus to train, and the train to bus connections are critical to the reduction of wait times, and noted the improved Blueline service. He noted that the workforce shortage continues to affect the number of missed trips. Mr. Roach reported that staff continues to work hard to determine the new baseline regarding ridership, in order to create reliability in the transit service. He commended Mr. Stewart and his team for their work regarding these issues. Mr. Roach noted that this process is not only about current ridership. He noted the new reality of “work from home” and the effects it has had on transit service and ridership, and stated that we must attract new riders to the system.

Chair Windmiller asked the timeline for the Forest Park station repairs. Mr. Roach stated that the Blueline service should be restored in November; however, currently, the Agency is anticipating six to nine months for the signal house repairs. He noted that this is an important project, and the signal house is being relocated to higher ground, so as to avoid future flooding situations. Chair Windmiller stated that this is a critical station, and the Agency must get the operation up and running as soon as possible. She noted that she is receiving complaints regarding this situation. Mr. Roach stated that he will speak to Darren Curry, Assistant Executive Director Transit Assets, regarding the possibility of shortening the time line.

13. Call of Dates for Future Board and Committee Meetings

9:15 a.m. Myra Bennett, Manager of Board Administration, advised that the next meeting of the Board of Commissioners will be held on Friday, November 18, 2022, at 8:30 AM.

14. Adjournment to Executive Session

9:16 a.m. Chair Windmiller noted that the only item for consideration on the Executive Session agenda is the Approval of the Minutes of the August 19, 2022, Operations Committee, Executive Session Meeting. She stated that, if there are no corrections to the minutes, and if there is no discussion regarding these minutes, the Committee could proceed to a vote, without going into Executive Session.

Commissioner Brown made a motion to approve the minutes of the August 19, 2022, Operations Committee, Executive Session Meeting, as presented, as a closed record. The motion was seconded by Commissioner Pestello.

A roll call vote was taken as follows:

Sam Gladney – Yea
Nate Johnson – Yea
Fred Pestello – Yea
Vernal Brown – Yea
Rose Windmiller – Yea

Herbert Simmons – Yea
Terry Beach – Yea
Irma Golliday – Yea
Derrick Cox – Yea
Debra Moore – Yea

The motion passed unanimously.

15. Adjournment

8:17 a.m. Chair Windmiller asked if there was any further business. Commissioner Simmons stated that he would like to wish Commissioner Golliday a happy birthday this month. Being no other business, Commissioner Golliday made a motion to adjourn the meeting. The motion was

seconded by Commissioner Moore. Unanimous vote in favor taken. The motion passed, and the meeting was adjourned at approximately 9:18 a.m.

Deputy Secretary to the Board of Commissioners
Bi-State Development

**Bi-State Development Agency
Operations Committee
Open Session Agenda Item
January 27, 2023**

From: Charles Stewart, Executive Vice President / Chief Operating Officer Metro Transit
Subject: **Contract Modification - On Call GEC Services**
Disposition: Approval
Presentation: Christopher Poehler, Assistant Executive Director Engineering Systems;
Thomas Curran, Executive Vice President of Administration

Objective:

To present to the Operations Committee, for discussion and referral to the Board of Commissioners for approval, a request for authorization to modify the General Engineering Consultant (GEC) contract with consultant engineering firm WSP, to increase the not-to-exceed amount from \$1,500,000 to \$2,500,000.

Background:

In early 2020, BSD requested proposals from qualified engineering firms for on-call services for Architectural Engineering, Civil and Structural Engineering, Surveying, Environmental/Geotechnical Services and Materials Testing, and Mechanical Engineering. The proposals received were reviewed and evaluated, and as a result, WSP was the highest ranked firm.

BSD awarded Contract 20-RFP-106674-CG – On Call GEC Services to WSP for an initial contract period of three years, with two 12-month option periods that are exercisable at BSD’s discretion. The initial contract period is from July 1, 2020 until June 30, 2023

Analysis:

The engineering services provided by WSP are needed to support BSD staff, due to the increased number of in-house projects. WSP’s contract is expected to exceed the initial not-to-exceed contract of \$1,500,000. To date, seventeen task orders, totaling \$1,320,665.16 have been issued to WSP. It is expected that BSD will continue to require engineering support from WSP.

Funding Source:

The work will be issued by task orders, and funding will be provided from federal and local sources.

Committee Action Requested:

Management recommends that the Operations Committee discuss, and forward to the Board of Commissioners for approval, a modification to the WSP contract for Architectural & Engineering Services, in the not-to-exceed amount of \$2,500,000.00, for the initial contract period ending on June 30, 2023.

Board Policy Chapter 50.010 G., Contract Modifications – Board of Commissioners’ approval is required for the award of competitive negotiated procurements and contract modifications which exceed \$500,000.

**Bi-State Development Agency
Operations Committee
Open Session Agenda Item
January 27, 2023**

From: Taulby Roach, President and Chief Executive Officer
Subject: **Contract Modification: Sole Source Contract with Motorola Solutions - Upgrade Obsolete Dispatch Console Network**
Disposition: Approval
Presentation: Darren Curry, Asst. Executive Director – Transit Assets
Thomas Curran, Executive Vice President of Administration

Objective:

To present to the Operations Committee, for discussion and referral to the Board of Commissioners for approval, a request to authorize the President & CEO to execute a contract modification with Motorola Solutions, Inc. for the upgrade and expansion of our existing dispatch console networks.

Background:

In 2013, Bi-State Development entered into a sole source contract *13-RFP-5949-DH Communications Systems* with Motorola Solutions. The Board of Commissioners previously authorized a capital project budget of \$33 million dollars for the design, procurement and installation of a modern voice and data radio communications network, capable of meeting transit operations/regional transit safety well into the future (Capital projects 1361 & 1817).

Of the \$33 million, five sole source contracts (PO 35643, PO 3983, PO 40124, PO 44260 & PO 62713) for a total of \$14,946,668.52 have been awarded to Motorola Solutions, Inc., of which three are still active (PO 3983, PO 44260 & PO 62713). One of the three is due to be closed upon receipt of the final coverage report (PO 3983). One will remain open for the foreseeable future, due to ongoing activities involving new sites and subsystem upgrades (PO 44260). The third (PO62713) will remain open for the duration of our existing, long-term proprietary hardware/software licensing and upgrade contract.

The current dispatch console networks (2) were purchased under PO 35643, dated 4/2/2012. They support Rail Operations, Public Safety, Bus Operations, C-A-R Operations and Maintenance. Both networks have reached end of life and are no longer supported in whole or part by the manufacturer.

The existing networks cannot be expanded; therefore, they cannot be used in support of the ongoing efforts to improve Public Safety and Security efforts, through the Real Time Camera Center development.

Analysis:

The dispatch console networks are critical to our continued ability to provide routine Operations support and expand our mission-critical Public Safety coordination, response and recovery efforts with key Federal, State and Local partners.

A Motorola Avtec Scout dispatch console network with requisite user (dispatcher) interface positions and backroom network routing, switching and proprietary Radio Frequency (RF) interface components necessary to interface with our existing regional radio network, complete with installation and training, is recommended.

The proposed console network will consolidate and accommodate all of our current and future dispatch requirements, including the Real Time Camera Center expansion. Each position has independent access to multiple RF channel assets with a touch screen control, audio interface and other advanced dispatch functionality.

The proposed console system is a closed network with no external hardwire connections; therefore, additional firewall equipment will not be required to enhance fixed cyber security. Wireless RF cyber security vulnerabilities are addressed through AES/DES RF encryption.

Additionally, the investment includes the cost of adding the dispatch console network to the existing, long-term proprietary hardware/software licensing and upgrade plan, as outlined in the attached Motorola Change Order (CO3). The existing long-term sustainment plan was funded by the FTA as a part of the regional communications network infrastructure for nine years, under PO 62713. To date, the plan has five of nine years remaining. For this investment, one of the five years just became active (10/1/22), and one of the years will be accounted for as warranty (estimated to begin 10/1/23). There will be three years remaining on the long-term agreement, after the warranty ends 10/1/24.

Committee Action Requested:

Management recommends that the Operations Committee accept, and forward to the Board of Commissioners for approval, this request to authorize the President & CEO to execute a contract modification with Motorola to provide the aforementioned console network, services and long-term sustainment plan, in the not-to-exceed amount of \$1,500,000, increasing the total not-to-exceed contract amount to **\$14,500,000**.

Funding Source:

Funding will be provided through Federal Grants and local funding already allocated for the purposes of Radio/CAD/AVL equipment and services under Capital Project 1361, specifically, through modifications to PO's 44260 and 62713 as described in the attached Motorola Change Order (CO3).

Attachments:

- Motorola Change Order No. 3
- Motorola Proposal

Change Order Number: 03

Date: 12/27/2022

Project Name and Number: BSDA Wide Area MO-111111AG

Customer Name: Bi-State Development Agency

Customer Project Mgr: Rick Farthing

The purpose of this Change Order is to: *(highlight the key reasons for this Change Order)*

Add Avtec dispatch console equipment to the project scope per the attached proposal dated 5/23/22.

Contract #: [PO 44260 / 13-RFP-5949-DH]
[PO 62713 / 13-RFP-5949-DH]

Contract Date: December 17, 2012

In accordance with the terms and conditions of the contract identified above between
Bi-State Development Agency and Motorola Solutions, Inc., the following changes are approved:

Contract Price Adjustments

Original Equipment PO Value (PO 44260):	\$ 9,533,163.00
Original Maintenance/SUA PO Value (PO 62713):	\$ 3,466,837.00
Purchase Orders Total:	\$ 13,000,000.00
Previous Change Order amounts for Change Order numbers [01 through [02].	\$ 0.00
This Change Order (Equipment and Implementation):	\$ 1,024,964.76
This Change Order (Post Warranty SUA and Support):	\$ 203,547.00
Total Change Order:	\$ 1,228,511.76
New Contract Value:	\$ 14,228,511.76

Completion Date Adjustments

Original Completion Date:	3/30/2015
Current Completion Date prior to this Change Order:	12/11/2022



New Completion Date:	12/31/2024
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Changes in Equipment: *(additions, deletions or modifications)*

Add: (24) Avtec Scout dispatch consoles, (20) APX single band console stations, related antenna equipment and other associated hardware as per the attached proposal dated 5/23/22.

Scope of Work Changes: *(additions, deletions or modifications)*

Implementation of all new equipment and software as per the attached proposal dated 5/23/22.

Changes in SUA and Support Services: *(additions, deletions or modifications)*

- Scoutcare post warranty maintenance agreement is included in the attached proposal in the amount of \$203,547 or \$67,849 per year for a period of three years, to be invoiced on an annual basis as part of the existing maintenance agreement USC000047013, increasing the annual amount on those three years by \$67,849.
- This Scoutcare maintenance agreement will begin one year after the warranty period begins, which will be upon acceptance of the change order implementation. A purchase order will be issued by Bi-State Development Agency six months after the warranty period has begun for the Scoutcare maintenance agreement.
- The implementation for this change order is expected to be complete by 10/01/2023, which will start the warranty period – if the change order implementation has not been completed by 10/01/2023, the Scoutcare maintenance agreement period will be adjusted to end on 9/30/2027 and pro-rated accordingly.

Schedule Changes: *(describe change or N/A)*

Adjusts completion date to 12/31/24.

Pricing Changes: *(describe change or N/A)*

Total increase in contract amount by \$1,228,511.76 as detailed above.

Customer Responsibilities: *(describe change or N/A)*

As per the attached proposal dated 5/23/22.

**Payment Schedule for this Change Order:***(describe new payment terms applicable to this change order)*

Billing milestones, as outlined in the attached proposal dated 5/23/22:

- 1) 25% of the equipment and implementation change order amount price (\$256, 241.19) shall be due upon change order execution;
- 2) 60% of the equipment and change order amount price (\$614,978.86) due upon the shipment of equipment;
- 3) 10% of the equipment and implementation change order amount price (\$102,496.48) due upon installation of equipment;
- 4) 5% of the equipment and implementation change order amount price (\$51,248.24) due upon completion of the change order implementation. and
- 5) Post Warranty and Support Services PO and Billing as described above.

Purchase Order Requirements for this Change Order (select only one).☒ A Purchase Order is required - included with this change order and is attached.☐ No Purchase Order is required - Customer affirms that this change order document is the only notice to proceed required, that funding has been encumbered for this change order in its entirety, and that no further purchase orders will be issued against this change order,☐ No Purchase Order required - this is a \$0 Change Order, or a decrease in scope.

Unless amended above, all other terms and conditions of the Contract shall remain in full force. If there are any inconsistencies between the provisions of this Change Order and the provisions of the Contract, the provisions of this Change Order will prevail.

IN WITNESS WHEREOF the parties have executed this Change Order as of the last date signed below.

Motorola Solutions, Inc.**Customer**

By: _____

By: _____

Printed Name: _____


Printed Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Reviewed by: 
Motorola Solutions Project Manager

Date: 12/27/22

BI-STATE DEVELOPMENT

AVTEC SCOUT CONSOLE SOLUTION

5-23-2022

The design, technical, pricing, and other information ("Information") furnished with this submission is proprietary and/or trade secret information of Motorola Solutions, Inc. ("Motorola Solutions") and Avtec LLC, and is submitted with the restriction that it is to be used for evaluation purposes only. To the fullest extent allowed by applicable law, the Information is not to be disclosed publicly or in any manner to anyone other than those required to evaluate the Information without the express written permission of Motorola Solutions. MOTOROLA, MOTO, MOTOROLA SOLUTIONS, and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners. © 2021 Motorola Solutions, Inc. All rights reserved.

500 W Monroe Street, Ste 4400
Chicago, IL 60661-3781
USA

5-23-2022

Rick Farthing
Communications Director
Bi State Development Agency
Saint Louis, MO 63112

RE: New Dispatch Consoles

Dear Mr. Farthing,

Motorola Solutions, Inc. (Motorola Solutions) appreciates the opportunity to provide the Bi State Development Agency quality communications equipment and services. Motorola Solutions' project team has taken great care to propose a solution to address your needs and provide exceptional value.

Motorola Solutions proposal consist of 24 AVTEK Scout Consoles and associated hardware, 20 APX Single Band Consolettes, professional install service and program management, along with along with a 4-year ScoutCare maintenance program that will be added to your current service contract USC000047013.

This offer is subject to the terms and conditions of the Communications System & Services Agreement, including the Maintenance, Support and Lifecycle Management Addendum (collectively, the "CSSA"). You may accept this offer by returning the signed CSSA to Motorola. Pricing will remain valid for 120 days from the date of this proposal.

Any questions Bi-State has regarding this proposal can be directed to Keith Antoff, Senior Account Executive at Motorola Solutions, (keith.antoff@motorolasolutions.com).

We thank you for the opportunity to present our proposed solution, and we hope to strengthen our relationship by implementing this project.

Sincerely,



Frank Galvin
Territory Vice President T5S

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Section 1

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Sincerely,

Frank Galvin
T5S Territory Vice President

SECTION 1

SYSTEM DESCRIPTION

1.1 OVERVIEW

To connect dispatchers with first responders and citizens, Motorola Solutions is proposing the Avtec Scout™ dispatch console solution, which integrates communications from telephone, LTE/Broadband, conventional radio, and trunked radio systems in a single console.



Avtec's Scout offers several key advantages:

- **Powerful** - Scout provides robust communication and incident response capabilities using simple, easy-to-deploy infrastructure with no solution core.
- **Scalable** – Scout is a completely modular system supporting operations ranging from a single console at a single site, to hundreds of consoles at multiple sites. Whether serving a small area or an entire state, Avtec Scout's simple platform can easily expand to meet organizational needs.
- **Reliable** – Avtec Scout's architecture eliminates single points of failure by utilizing IP-based Voice over Internet Protocol (VoIP) and Ethernet technology to distribute solution components over network infrastructure. This prevents emergencies from disrupting voice communication. Scout also continues to operate during software updates and changes, simplifying update scheduling.

Avtec Scout unifies communications in a highly configurable interface, supported by redundant components for reliability. Dispatchers will be able to access specialized communications functions through a console that fits their workflow.

1.2 SCOUT CONSOLE MODELS

Scout dispatch consoles are available in multiple models that tailor channel capacity to different user roles. Motorola Solutions is proposing a license package sized to meet the needs of Bi-State's organization. Each model is interoperable with the others, making it easy to provide users with the features they need and increase capacity as needed over time.

1.3 SCOUT USER INTERFACE

Each Scout console includes a highly configurable and user friendly GUI that offers quick access to vital communications features. The console screen displays selectable virtual buttons called “pads,” which dispatchers can use to answer calls, select functions, and open different interface screens.



Figure 1-1: Sample Scout User Interface Configurations

Every aspect of the Scout interface is configurable, so it can be tailored to dispatchers’ workflows. The Scout System Administrator can change interface characteristics like window sizes, web browser objects, map backgrounds, buttons, colors, fonts, and button icons to develop screen configurations that meet operational needs.

Interface configuration can vary or be identical across dispatch positions. One dispatcher can access different screen layouts when working in specific territories, selecting their Communication Landscape (CommScape) when they log in. The Scout interface can even be modeled on legacy layouts to help reduce dispatcher training time.

1.4 CONSOLE CAPABILITIES

Call Handling

Dispatchers can communicate with other console and radio users individually or as a group using Scout. Group calls can be set up for a variety of sizes, ranging from a single user group to every user on the system.

In addition to two way calls, dispatchers can use broadcast calls to make one-way announcements, efficiently communicating vital information to multiple users.

Caller Information

Scout displays call information to provide context, informing dispatchers of a caller’s identity using their PTT-ID or alphanumeric ANI alias.

Safety

Scout includes features to help dispatchers verify a user's safety and detect emergencies. Dispatchers can check the operational status of a user’s radio and monitor audio from it to determine their current situation. If needed, radio monitoring can be activated discreetly, showing no visible indication on the

radio that its audio is being monitored. If a user presses the emergency button on their radio, Scout sends an alert to dispatchers and enters emergency mode.

In emergency mode, Scout prioritizes calls from the user who triggered the emergency so that dispatchers can remain in contact without disruption. This emergency state remains active until deactivated by a dispatcher.

To prevent potential security threats from lost or stolen radios, dispatchers can use Scout to remotely disable them until they are recovered. If the radio is recovered, dispatchers can also remotely re-enable it.

Logging and History Tracking

Scout can record both inbound and outbound audio in its integrated Instant Recall Recorder (IRR), and interface with a variety of external logging recorders for longer term audio storage.

In addition to call audio, Scout logs user activity and system messages for later reference. Each time a dispatcher takes an action, Scout records the action and any associated metadata, such as when the action took place. Scout also logs any messages generated by errors and automatic system actions, including a timestamp and message ID.

To locate information quickly, dispatchers can filter logs in Scout by conversations, inbound talkspurs, outbound talkspurs, or specific calls. Scout also includes a search function to locate records using keywords or numbers.

Security and Encryption

Scout dispatch consoles offer several layers of password protection, securing access to communications. If set up by administrators, Scout only provides access to personnel with necessary credentials.

Dispatchers can secure their communications in Scout using software-based AES and DES encryption to prevent potential eavesdroppers from listening in. They can dynamically change encryption methods and keys within Scout, making it easy to adapt their security posture.

Scout system administrators can manage available encryption keys using the Avtec Encryption Key Manager, which can load multiple encryption key sets. The Scout System Administrator can manually enter encryption keys for multiple encryption methods, and also load encryption keys into the Avtec Encryption Key Manager using supported Key Fill Devices.

1.4.1 Scout Enterprise Console Operator Position

Each Scout console position consists of Avtec software on a standard computer, a media workstation, and dispatching peripherals. Scout supports commercial-off-the-shelf (COTS) computers and peripherals, simplifying procurement and configuration, reducing maintenance, and lowering life-cycle costs. Scout console software runs on a Windows 10 computer with any compatible pointing device or an LCD touchscreen. The proposed Scout Dispatch solution positions will include the following components:

- **Scout Software Media Workstation** – This software-based workstation integrates with the Avtec Scout console on one PC, making deployment simple and compact. The console software handles audio processing, such as patching, transcoding, gain control, and mixing. Peripherals are connected via USB.
- **Desktop Speakers** – Compact and easily stackable speakers that provide Select and Unselect audio.
- **Jack Box** – A connector peripheral that provides a standard PJ327 jack for 4W/6W handsets and headsets, with a volume control and mute-indication LED.
- **Desktop Microphone** – Includes a sturdy weighted base, a large button for PTT, a smaller button for Continuous Tone-Coded Subaudible Squelch (CTCSS), and a flexible neck. The profile of the microphone prevents dispatchers from engaging PTT accidentally.
- **Personal Computer (PC)** – The computer that hosts the position's Scout console software. Includes the Windows 10 operating system.
- **Computer Display** – LCD Touchscreen display monitor for the position's computer.

Motorola Solutions proposes the installation and configuration of the following equipment at the locations specified in Table 1-1.

Table 1-1: Removal and/or installation and configuration

Site Name	Major Equipment
Dispatch Site 1: Radio Control Room – 3300 Spruce Street	(6) Tier 1 EX Consoles, Headsets, Jackboxes, USB Hubs, Desk Mics, Console IRR, and set of (2) Speakers; 20 Consolelets on 2 separate combiners and antenna systems
	(1) Redundant Level 1 VPGate Servers
	(10) Outpost Plus Gateways w/ APX Consolelet Interface Licenses
	(1) Switch
Dispatch Site 2: 3300 Spruce Street	(3) Tier 1 EX Consoles, Headsets, Jackboxes, USB Hubs, Desk Mics, Console IRR, and 2 Speakers
	(1) Switch
Dispatch Site 3: 700 South Ewing Street	(6) Tier 1 EX Consoles, Headsets, Jackboxes, USB Hubs, Desk Mics, Console IRR, and 2 Speakers
	(1) Switch
Dispatch Site 4: Emerson Park	(9) Tier 1 EX Consoles, Headsets, Jackboxes, USB Hubs, Desk Mics, Console IRR, and 2 Speakers
	(1) Switch
Spare Equipment	(4) Desk Mics, Jackbox, set of (2) Speakers

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	(1) Switch and Outpost
Integration Services	Included in project cost
Training	Dispatcher and Administrative Training Included
ScoutCare	5yr Maintenance and Software Support will be added to existing Motorola Service Contract

1.5 SYSTEM INTEGRATION

Scout consoles easily integrate with a variety of communications networks using limited infrastructure equipment and no centralized core. The main connection component is the Scout Voice Over IP Protocol Gateway (VPGate™), which will interface Scout consoles to Bi-States network using standard IP transport infrastructure to exchange data and an endpoint registration component to direct communications traffic.

The following diagram illustrates the connection between the Scout console subsystem and Bi-States communications system.

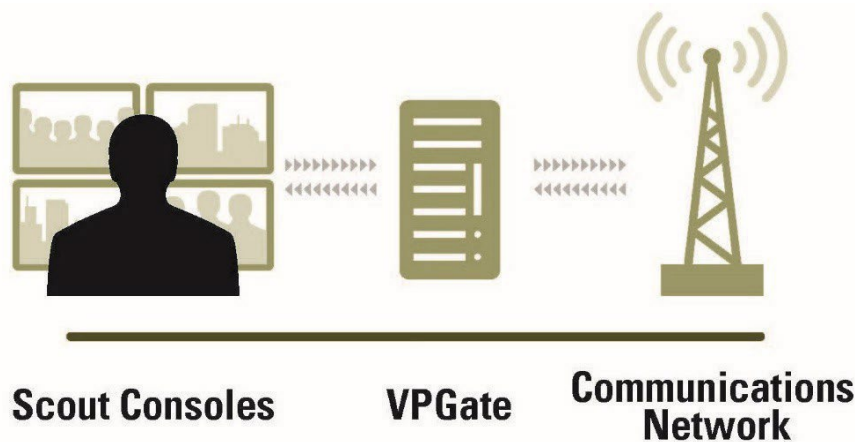


Figure 1-2: Scout Connection Diagram

Voice Over IP Protocol Gateway

VPGate translates VoIP traffic and open and proprietary communication protocols from Scout into the data formats used by connected endpoints like radio base stations, telephone lines, and radio groups. Interfaces to specific endpoints can be added or removed from VPGate, tailoring its connections to incorporate Bi-States endpoints.

To ensure reliability, VPGate is configured in redundant pairs. This failover capability provides a highly resilient system design that can continue to operate in a number of disaster scenarios. It ensures that network endpoints assigned to VPGate continue to be available for uninterrupted operation from console positions.

IP Transport Infrastructure

The Scout solution relies on standard IP transport infrastructure to exchange data between VPGate and Bi-States communications network, requiring no external controllers or vocoders.

To reduce latency and improve Quality of Service, administrators can configure the IP transport infrastructure tying the systems together to give priority to voice communication packets. Scout uses separate Differentiated Services values to change the priority for audio and control packets exchanged between Scout consoles and other components of Bi-States network.

Use or disclosure of this proposal is subject to the restrictions on the cover page.

Additional Connection Capabilities

Scout dispatch consoles can access several connection features to expand their capabilities and improve their efficiency. The following features are included in this proposal:

- **Avtec Outpost** – A solid-state embedded IP controller that interfaces analog radio equipment to the Scout console subsystem IP network. It converts analog audio to digital, and provides remote monitoring and control. Outpost works in conjunction with VPGate to provide interoperability with analog endpoint devices from various manufacturers.

1.6 SCOUT SOLUTION MANAGEMENT

System administrators can configure Scout console functions over the network using the Scout Manager tool. With Scout Manager, Scout system administrator can configure console functions and screen layout for multiple or individual dispatchers. This software application runs on Windows 10, Windows Server 2012 R2 Update 1, or Windows Server 2016, saving configuration data to SQL databases and standard XML files.

In addition to Scout Manager, the Scout solution provides administrators with detailed system status and behavior information, including audio diagnostics, console states, and component health, through the Scout Central Distributor (SCD). The SCD also creates log files for each major subsystem support deeper diagnostic analysis. For external alerting, Scout sends Simple Network Management Protocol (SNMP) messages for its alarms and events to as many as four SNMP managers, enabling administrators to view messages through an integrated management console.

The SCD also houses solution security settings. Administrators can manage user access profiles in the SCD, serving as a central security infrastructure. Both Scout Manager and SCD tools are secured by credentialed login to prevent unauthorized configuration changes.

1.7 EQUIPMENT LIST

BLOCK	LIM	O	QTY	NOMENCLATURE	DESCRIPTION
ANTENNA	1	-	1	DSMFBW7463	WIDEBAND FIBERGLASS OMNI ANTENNA 746-869 NFM BULKHEAD
ANTENNA	2	-	1	DSMMK12	ANTENNA MOUNTING BRACKET
MAINLINE	3	-	1	DSNMA01250B	N MALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)
MAINLINE	4	-	1	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
MAINLINE	5	-	100	DSAT012J50	AT012J50, 1/2" TRANSMISSION LINE,50OHM,BLACK POLYETHYLENE JCKT PER FT
MAINLINE	6	-	1	DSNFA01250B	N FEMALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)
MAINLINE	7	-	4	DSGKS12AC	GK-S12AC, STD GROUND KIT FOR 1/2" AIRCELL COAX
MAINLINE	8	-	1	DSHG12	HG-12, LACE-UP GRIP FOR 1/2 COAX
ANTACC	9	-	4	DSSHU12	SH-U12, UNIVERSAL SNAP-IN HANGER FOR 1/2" AIRCELL COAX, PKG OF 10
SURGE	10	-	1	DSTSXD FMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
SURGE	11	-	1	DSGSAKITD	GROUND STRAP KIT - DIN
LOWERJUMPR	12	-	25	DSAT012J50	AT012J50, 1/2" TRANSMISSION LINE,50OHM,BLACK POLYETHYLENE JCKT PER FT
LOWERJUMPR	13	-	2	DSNMA01250B	N MALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)



BLOCK	LIM	O	QTY	NOMENCLATURE	DESCRIPTION
ANTENNA	14	-	1	DSMFBW7463	WIDEBAND FIBERGLASS OMNI ANTENNA 746-869 NFM BULKHEAD
ANTENNA	15	-	1	DSMMK12	ANTENNA MOUNTING BRACKET
MAINLINE	16	-	1	DSNMA01250B	N MALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)
MAINLINE	17	-	1	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
MAINLINE	18	-	100	DSAT012J50	AT012J50, 1/2" TRANSMISSION LINE,50OHM,BLACK POLYETHYLENE JCKT PER FT
MAINLINE	19	-	1	DSNFA01250B	N FEMALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)
MAINLINE	20	-	4	DSGKS12AC	GK-S12AC, STD GROUND KIT FOR 1/2" AIRCELL COAX
MAINLINE	21	-	1	DSHG12	HG-12, LACE-UP GRIP FOR 1/2 COAX
ANTACC	22	-	4	DSSHU12	SH-U12, UNIVERSAL SNAP-IN HANGER FOR 1/2" AIRCELL COAX, PKG OF 10
SURGE	23	-	1	DSTSXD FMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
SURGE	24	-	1	DSGSAKITD	GROUND STRAP KIT - DIN
LOWERJUMPR	25	-	25	DSAT012J50	AT012J50, 1/2" TRANSMISSION LINE,50OHM,BLACK POLYETHYLENE JCKT PER FT
LOWERJUMPR	26	-	2	DSNMA01250B	N MALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)
CS COMB	27	-	1	DS4383G01A12	CONTROL STATION COMBINER, STANDARD, 746-869 MHZ, 12 CHANNEL
CS COMB	28	-	60	DSAT012J50	AT012J50, 1/2" TRANSMISSION LINE,50OHM,BLACK POLYETHYLENE JCKT PER FT
CS COMB	29	-	20	DSNMA01250B	N MALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)
ANTENNA	1	-	1	DSMFBW7463	WIDEBAND FIBERGLASS OMNI ANTENNA 746-869 NFM BULKHEAD
ANTENNA	2	-	1	DSMMK12	ANTENNA MOUNTING BRACKET
MAINLINE	3	-	1	DSNMA01250B	N MALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)
MAINLINE	4	-	1	DSWKU	WK-U, UNIVERSAL WEATHERPROOFING KIT
MAINLINE	5	-	100	DSAT012J50	AT012J50, 1/2" TRANSMISSION LINE,50OHM,BLACK POLYETHYLENE JCKT PER FT
MAINLINE	6	-	1	DSNFA01250B	N FEMALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)
MAINLINE	7	-	4	DSGKS12AC	GK-S12AC, STD GROUND KIT FOR 1/2" AIRCELL COAX
MAINLINE	8	-	1	DSHG12	HG-12, LACE-UP GRIP FOR 1/2 COAX
ANTACC	9	-	4	DSSHU12	SH-U12, UNIVERSAL SNAP-IN HANGER FOR 1/2" AIRCELL COAX, PKG OF 10
SURGE	10	-	1	DSTSXD FMBF	RF SPD, 698-2700MHZ DC BLOCK HIGH PWR, DIN FEM/MALE BI-DIR W/ BRACKET
SURGE	11	-	1	DSGSAKITD	GROUND STRAP KIT - DIN
LOWERJUMPR	12	-	25	DSAT012J50	AT012J50, 1/2" TRANSMISSION LINE,50OHM,BLACK POLYETHYLENE JCKT PER FT
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MAINLINE	16	-	1	DSNMA01250B	N MALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)
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BLOCK	LIM	O	QTY	NOMENCLATURE	DESCRIPTION
MAINLINE	18	-	100	DSAT012J50	AT012J50, 1/2" TRANSMISSION LINE,50OHM,BLACK POLYETHYLENE JCKT PER FT
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LOWERJUMPR	25	-	25	DSAT012J50	AT012J50, 1/2" TRANSMISSION LINE,50OHM,BLACK POLYETHYLENE JCKT PER FT
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CS COMB	28	-	60	DSAT012J50	AT012J50, 1/2" TRANSMISSION LINE,50OHM,BLACK POLYETHYLENE JCKT PER FT
CS COMB	29	-	20	DSNMA01250B	N MALE FOR 1/2 CABLE (USE WITH CT01250AIO-2)
CNTLSTN	30	-	20	L37TSS9PW1 N	ALL BAND CONSOLETTTE
CNTLSTN	30	a	20	GA00318	ADD: 5Y ESSENTIAL SERVICE
CNTLSTN	30	b	20	G90	ADD: NO MICROPHONE NEEDED APX
CNTLSTN	30	c	20	CA01598	ADD: AC LINE CORD US
CNTLSTN	30	d	20	G51	ENH:SMARTZONE
CNTLSTN	30	e	20	GA05508	DEL: DELETE VHF BAND
CNTLSTN	30	f	20	GA05509	DEL: DELETE UHF BAND
CNTLSTN	30	g	20	L999	ADD: FULL FP W/E5/KEYPAD/CLOCK/VU
CNTLSTN	30	h	20	G843	ADD: AES ENCRYPTION AND ADP
CNTLSTN	30	i	20	G806	ENH: ASTRO DIGITAL CAI OP APX
CNTLSTN	30	j	20	G361	ENH: P25 TRUNKING SOFTWARE APX
CNTLSTN	30	k	20	HKN6233C	APX CONSOLETTTE RACK MOUNT KIT
SWITCH	31	-	2	CLN1868	2930F 24-PORT SWITCH
SFP	32	-	4	DSJ4860D	HPE ARUBA 1G SFP LC LH 70KM SMF TRANSCEIVER
					AVTEC - KURT JOHNSON
dispatch 1			6	DSSFWSCOUTEXT1SK	Scout EX Console - Tier 1 includes a license for a Scout Enterprise Console with Software Audio Package. Includes IRR. Software Key version.
			6	DSACCCPUDTWIN10	PC for Scout Console Packages, Dual NICs, MS Windows 10 Professional 64 bit OS
			6	DSACCTSC23WSPC	23 inch touch screen
			6	DSACCUSBHJB NENA	Avtec USB Headset/handset jack box (single jack), Integrates NENA phone at the operators position with Scout. Requires Scout version 4.11 or later running Software Media Workstation.

BLOCK	LIM	O	QTY	NOMENCLATURE	DESCRIPTION
			6	DSACCUSBMICSIR	Desktop microphone for Scout Software Media Workstation. It has an 18 inch flexible shaft, a transmit button, and a noise cancelling feature that provides 20 dB of front to back noise attenuation. Includes USB A to C cable
			6	DSACCUSBSPK2SIR	Two Desktop speakers for the Software Media Workstation. Each speaker has its own individual volume control. For up to 20 Watts of power use with an optional external power supply. Includes two USB A to C cable
			6	DSUSBHUB10	10 Port USB Hub, USB 3.0
			1	DSSFWVPGL1FTRSK	Redundant Frontier-enabled VPGate Software License for a maximum of 40 endpoints; up to 20 may be "B" Licenses. Software license version.
			2	DSACCCPUSTD2019	1 Rack Unit (1RU) Server Solid State hard drive, Windows 2019 Server OS, TPM 2.0. Requires additional package for monitor, keyboard, etc.(DISP-XXXX)
			10	DSOUTPOST-2R	RADIO CONTROLLER, VOIP, 2 PORTS, 12 VDC INPUT
			3	DSOUTPOST-RACK-PKG	3U RACK MOUNT SHELF (1-4 OUTPOST RADIOS) WITH RACKMOUNT PS
			20	DSOUTPOSTAPXCON	OUTPOST KIT FOR (1) MOTOROLA APX CONSOLETTTE ENDPT, INCLUDES LIC & CABLE.
			1	DSDISP-KVM-FF-RR	1U LCD Folding Display, for Relay Rack. Includes Keyboard with trackpad and 8-port KVM
			2	DSACCNETWK24PSFP	24 PORT MANAGED ETHERNET SWITCH
			2	DSACC-MTG-1U-RR	Kit to rack mount PS-12V-3BAY-AC , ACC-CPU-RM-2012 or -WIN7 in 19" relay rack. 1U high.
			12	DSACCHED6WNC	Complete 6W Headset, Plantronics Supra Model H251 Noise Canceling Microphone with plug-prong base.
dispatch 2			3	DSSFWSCOUTEXT1SK	Scout EX Console - Tier 1 includes a license for a Scout Enterprise Console with Software Audio Package. Includes IRR. Software Key version.
			3	DSACCCPUDTWIN10	PC for Scout Console Packages, Dual NICs, MS Windows 10 Professional 64 bit OS
			3	DSACCTSC23WSPC	23 inch touch screen
			3	DSACCUSBMICSIR	Desktop microphone for Scout Software Media Workstation. It has an 18 inch flexible shaft, a transmit button, and a noise cancelling feature that provides 20 dB of front to back noise attenuation. Includes USB A to C cable
			3	DSACCUSBSPK2SIR	Two Desktop speakers for the Software Media Workstation. Each speaker has its own individual volume control. For up to 20 Watts of power use with an optional external power supply. Includes two USB A to C cable
			3	DSACCUSBHJBNA	Avtec USB Headset/handset jack box (single jack), Integrates NENA phone at the operators position with Scout. Requires Scout version 4.11 or later running Software Media Workstation.
			3	DSUSBHUB10	10 Port USB Hub, USB 3.0

BLOCK	LIM	O	QTY	NOMENCLATURE	DESCRIPTION
			1	DSACCNETWK24PSFP	24 PORT MANAGED ETHERNET SWITCH
			6	DSACCHED6WNC	Complete 6W Headset, Plantronics Supra Model H251 Noise Canceling Microphone with plug-prong base.
dispatch 3			6	DSSFWSCOUTEXT1SK	Scout EX Console - Tier 1 includes a license for a Scout Enterprise Console with Software Audio Package. Includes IRR. Software Key version.
			6	DSACCCPUDTWIN10	PC for Scout Console Packages, Dual NICs, MS Windows 10 Professional 64 bit OS
			6	DSACCTSC23WSPC	23 inch touch screen
			6	DSACCUSBMICSIR	Desktop microphone for Scout Software Media Workstation. It has an 18 inch flexible shaft, a transmit button, and a noise cancelling feature that provides 20 dB of front to back noise attenuation. Includes USB A to C cable
			6	DSACCUSBSPK2SIR	Two Desktop speakers for the Software Media Workstation. Each speaker has its own individual volume control. For up to 20 Watts of power use with an optional external power supply. Includes two USB A to C cable
			6	DSACCUSBHJBNENA	Avtec USB Headset/handset jack box (single jack), Integrates NENA phone at the operators position with Scout. Requires Scout version 4.11 or later running Software Media Workstation.
			6	DSUSBHUB10	10 Port USB Hub, USB 3.0
			1	DSACCNETWK24PSFP	24 PORT MANAGED ETHERNET SWITCH
			12	DSACCHED6WNC	Complete 6W Headset, Plantronics Supra Model H251 Noise Canceling Microphone with plug-prong base.
dispatch 4			9	DSSFWSCOUTEXT1SK	Scout EX Console - Tier 1 includes a license for a Scout Enterprise Console with Software Audio Package. Includes IRR. Software Key version.
			9	DSACCCPUDTWIN10	PC for Scout Console Packages, Dual NICs, MS Windows 10 Professional 64 bit OS
			9	DSACCTSC23WSPC	23 inch touch screen
			9	DSACCUSBMICSIR	Desktop microphone for Scout Software Media Workstation. It has an 18 inch flexible shaft, a transmit button, and a noise cancelling feature that provides 20 dB of front to back noise attenuation. Includes USB A to C cable
			9	DSACCUSBSPK2SIR	Two Desktop speakers for the Software Media Workstation. Each speaker has its own individual volume control. For up to 20 Watts of power use with an optional external power supply. Includes two USB A to C cable
			9	DSACCUSBHJBNENA	Avtec USB Headset/handset jack box (single jack), Integrates NENA phone at the operators position with Scout. Requires Scout version 4.11 or later running Software Media Workstation.
			9	DSUSBHUB10	10 Port USB Hub, USB 3.0
			1	DSACCNETWK24PSFP	24 PORT MANAGED ETHERNET SWITCH
			18	DSACCHED6WNC	Complete 6W Headset, Plantronics Supra Model H251 Noise Canceling Microphone with plug-prong base.



BLOCK	LIM	O	QTY	NOMENCLATURE	DESCRIPTION
spares			4	DSACCUSBMICSIR	Desktop microphone for Scout Software Media Workstation. It has an 18 inch flexible shaft, a transmit button, and a noise cancelling feature that provides 20 dB of front to back noise attenuation. Includes USB A to C cable
spares			4	DSACCUSBSPK2SIR	Two Desktop speakers for the Software Media Workstation. Each speaker has its own individual volume control. For up to 20 Watts of power use with an optional external power supply. Includes two USB A to C cable
spares			4	DSACCUSBHJBNENA	Avtec USB Headset/handset jack box (single jack), Integrates NENA phone at the operators position with Scout. Requires Scout version 4.11 or later running Software Media Workstation.
spares			4	DSUSBHUB10	10 Port USB Hub, USB 3.0
spares			1	DSACCNETWK24PSFP	24 PORT MANAGED ETHERNET SWITCH
spares			1	DSOUTPOST-2R	RADIO CONTROLLER, VOIP, 2 PORTS, 12 VDC INPUT



SECTION 2

STATEMENT OF WORK

This section, known as the Statement of Work (SOW), describes the deliverables to be furnished to Bi-State and the tasks to be performed by Motorola, its subcontractors, and Bi-State Public Safety Communications, Inc ("Customer") to implement the solution described in this proposal. It describes the actual work involved in installation and clarifies the responsibilities for both Motorola and Customer during the project implementation.

Site Readiness Survey

Prior to starting any site equipment installations, Motorola and Customer shall conduct a site readiness review at each job site to examine existing work, work performed by others, or work not included in this SOW, that is required to support the new equipment. The site readiness review documents any conditions that will prevent start of site upgrade or equipment installation work to be performed by Motorola and its subcontractors. Issues will be noted and responsible party(ies) must correct their deficiencies prior to system installation. Additional walks may be needed to confirm deficiencies have been properly corrected.

Kickoff/Detailed Design Review

Shortly after executed contract, Motorola and Customer shall schedule a detailed design review at Customer provided meeting location. Motorola shall present in detail all documents and services described to support this solution. Any mutually agreed changes to the originally contracted design shall be captured via change order. Motorola will be responsible for updating applicable documents, pricing, etc. as required for final Customer approval. The design shall be final or 'locked down' when both parties sign a Detailed Design Review milestone completion certificate to be drafted and presented by Motorola. Once signed by both parties any subsequent changes shall be captured again via the change order process as described below.

Change Orders

Change orders can be initiated by either Party and within the general scope of the awarded contract agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Implementation schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written, jointly signed change order.

Description of Services

Motorola Solutions shall provide equipment, software, licensing and services to install a Scout dispatch console system in accordance with the Sales Quotation herein or separately attached, which may include services such as project management, system staging, equipment installation, testing, cutover, optimization, and operator training.



Motorola Responsibilities

Motorola Solutions or its approved Dealer will assume responsibility for the installation and performance of all equipment and work that is provided in the included Equipment List and described in our Statement of Work. In general these responsibilities include the following:

- Procure and/or manufacture Motorola provided equipment and ship to Customer provided local address.
 - Includes receive, inspect, & inventory equipment
- Perform any needed pre-staging of equipment prior to delivering for final installation.
- Schedule the implementation in agreement with the Customer.
- Provide Customer with the appropriate system interconnect specifications.
- Coordinate the activities of all Motorola approved subcontractors under this contract.
- Administer safe work procedures for installation.
- Perform the installation of all Motorola supplied equipment.
 - Includes removing existing, decommissioned dispatch equipment.
 - Provide and install NEMA enclosure on Customer provided wall space.
 - Existing XTS Consolettes will be swapped with the new APX Consolettes within the same rack.
 - Consolette antennae (4) to be installed on Customer provided antenna structure. Standard antenna mounting included. Coaxial will be installed in Customer provided cable trays/routing and wall/ceiling penetrations.
 - Install CAT5 cabling from each Console to backroom equipment. Cabling to be ran in Customer provided cable trays/cable support, interior/exterior wall/ceiling/rooftop penetrations.
- Prepare equipment (i.e. build template, programming, integration, pre-test) for acceptance testing with Customer.
- Conduct final acceptance testing with Customer.
- Perform approved cutover plan.
- Conduct Training as described below.
- Provide 1st Year warranty support as described in Section 4.8

Customer Responsibilities

Customer will assume responsibility for the installation and performance of all other equipment and work necessary for completion of this project that is not provided by Supplier. General Customer responsibilities include the following:

- Provide all buildings, equipment shelters, and towers required for system installation.
- Insure communications sites meet floor/desktop space, cable trays, wall/floor/ceiling penetrations, cooling/ventilation, site grounding, main and back-up power, ice bridge, fire extinguishers, first aid kits, and connectivity requirements for the installation of all equipment.
 - Includes running electrical to Motorola provided NEMA enclosure.
- Obtain all licensing, site access, or permitting required for project implementation.
- Obtain frequencies for project as required.
- Provide required system interconnections.
- Provide a dedicated delivery point, such as a warehouse, for receipt, inventory and storage of equipment prior to delivery to the site(s).
- Procure, configure, install, terminate and test all networking infrastructure and cabling



- Coordinate the activities of all other Customer vendors or other contractors.

These responsibilities should be considered general in nature, and specific sites or custom requirements may require additional work. The exact work being provided in this Proposal is described in the Statement of Work or in an attachment. Motorola reserves the right to modify the Terms and/or Pricing shown if additional information is discovered prior to installation.

Training

The following types of training shall be provided by Motorola or its approved Dealer:

Operator Training

On-site operator training shall be provided to eight (8) trainers. Up to two (2) sessions over a two-day period of on-site Operator Training shall be available. This portion of the training period should not exceed two hours per session. All course materials shall be included.



SECTION 3

Maintenance Support Plan

Avtec ScoutCare™

ScoutCare™ will provide ongoing post-warranty support for Bi-State's Scout dispatch solution, protecting investment and lowering the total cost of ownership with software maintenance, hardware maintenance, remote support, and technical training classes.

Software Maintenance

ScoutCare includes ongoing software updates to maintain and improve Bi-State's console solution. These updates maintain Scout compatibility with hardware and software, protect against cybersecurity threats, add features, fix bugs, and improve diagnostics and redundancy mechanisms to proactively target potential future issues.

Hardware Maintenance

ScoutCare hardware maintenance provides repair and replacement for Avtec hardware products and accessories. Malfunctioning equipment will be repaired at the factory and then returned. Urgent repairs qualify for loaned Advanced Replacement components, sent with expedited shipping before malfunctioning components are processed for repair to avoid disruption from a failed component. Once the malfunctioning component is repaired, it will replace the Advanced Replacement component.

Remote Support

Remote Support addresses unexpected issues, providing telephone and remote support to promptly restore solution functionality. Support engineers will be available to help troubleshoot issues and answer configuration questions during normal business hours, and provide 24/7 support to help resolve Critical Priority issues.

These support engineers are backed by a professional services team of software development and quality control engineers, to ensure that complex issues are escalated and receive careful analysis. Avtec continuously provides these teams with the latest radio systems, virtualized test environments, and training to ensure they are prepared to rapidly deliver effective support.

Technical Training Classes

Annual training classes will inform administrators about new developments, and help them to optimize Bi-State's Scout solution. As part of ScoutCare, Bi-State's will receive two seats each year to attend Scout in-person or online training. This training is focused on providing system administrators and other personnel with critical knowledge of Scout functionality. In addition, personnel will have access to Avtec Connect, a web-based information portal that provides product documentation, software release notes, training videos, and other helpful information.

Local On-site Response

On-site maintenance and repair of Bi-State's Avtec consoles will be provided by Motorola Solutions' local team of service personnel. Motorola Solutions will provide Bi-State with a Customer Support Plan (CSP) that outlines the details of each service, provides escalation paths for special issues, and any other information



specific to Bi-State's service agreement. Some of these details will include items such as access to sites, response time requirements, severity level definitions, and parts department access information.

Local technicians will be dispatched for on-site service by the SSC, who will inform the technician of the reason for dispatch.

This will enable the technician to determine if a certain component or Field Replacement Unit (FRU) will be needed from inventory to restore the system. Once on site, the field technician will notify the SSC and begin to work on the issue. The technician will review the case notes to determine the status of the issue, and begin the troubleshooting and restoration process. Once the system is restored to normal operation, the field technician will notify the SSC that the system is restored. The SSC, in turn, will notify Bi-State that the system is restored to normal operation and request approval to close the case.

APX Consolette Essential Services

Overview

To provide Bi-State with access to technical support teams and resources for troubleshooting and maintenance, Motorola Solutions has included 5 Years of the Essential tier of our Device Management Services (DMS Essential) for APX™ user radios. DMS Essential provides remote technical support to troubleshoot problems and hardware repair to properly restore Bi-State's user radios.

The proposed offering consists of the following specific services:

- Technical Support for 20 APX Consolettes. .
- Hardware Repair for 20 APX Consolettes.

The following sections describe the services included with DMS Essential.

Technical Support

Motorola Solutions Technical Support personnel will be available to assist with any questions, issues, or problems related to user radios. Technical Support personnel apply leading industry standards in recording, monitoring, escalating, and reporting technical support calls to provide the support needed to resolve issues quickly.

Hardware Repair

Hardware Repair provides repair services for user radios damaged by manufacturing defects and normal wear and tear. Repairs are provided by Motorola Solutions, or an authorized Motorola Solutions service repair center, for the length of the contract. The service center tests, repairs, and restores the user radio to original factory specifications. Repair may include updating the user radio's Operating System (OS) software to the latest version supported by the user radio.

The Hardware Repair service adheres to a proven process of analysis and restoration, and the work is backed by a 90-day warranty. User radios covered under this service also receive higher service priority at the repair depot, resulting in quicker repair times.

SECTION 4

PRICING

Description	Pricing
Motorola AVTEK Scout Consoles and 1 Year Warranty	\$629,609.00
Johnson County (KS) Contract Discount	(\$94,441.35)
Console Sub-Total	\$535,167.65
Motorola APX Single Band Consolettes with 5 Years of Essential Services	\$331,874.78
Johnson County (KS) Contract Discount	(\$107,937.21)
Radio Sub-Total	\$223,937.57
System Implementation Services Total	\$265,859.54
Equipment and Implementation Sub-Total	\$1,024,964.76
ScoutCare Years 2	\$67,849.00
ScoutCare Years 3	\$67,849.00
ScoutCare Years 4	\$67,849.00
Services Grand Total	\$203,547.00
Grand Total	\$1,228,511.76

SECTION 5

CONTRACT

to the restrictions on the cover page.

Communications System and Services Agreement

Motorola Solutions, Inc. ("Motorola") and Bi-State Development Agency ("Customer") enter into this "Agreement," pursuant to which Customer will purchase and Motorola will sell the System and Services, as described below. Motorola and Customer may be referred to individually as a "Party" and collectively as the "Parties." For good and valuable consideration, the Parties agree as follows:

Section 1 ATTACHMENTS

1.1. EXHIBITS. The Exhibits listed below are exhibits related to the System sale and implementation. These Exhibits are incorporated into and made a part of this Agreement.

Exhibit A "Motorola Software License Agreement"

Exhibit B "Payment"

Exhibit C Technical and Implementation Documents

C-1 "System Description" dated 5-23-2022

C-2 "Pricing Summary & Equipment List" dated 5-23-2022

C-3 "Implementation Statement of Work" dated 5-23-2022

C-4 "Acceptance Test Plan" or "ATP" dated TBD

C-5 "Performance Schedule" dated TBD

Exhibit D "System Acceptance Certificate"

1.2. ADDENDUM (ADDENDA). Customer may elect to purchase professional or subscription services in addition to the System and related services. Any such services will be governed by the terms in the main body of the Agreement and an applicable Addendum containing terms specific to such service. Such Addenda will be labeled with the name of the service being purchased.

1.3 ORDER OF PRECEDENCE. In interpreting this Agreement and resolving any ambiguities: 1) the main body of this Agreement takes precedence over the exhibits (unless otherwise specified in an exhibit), and any inconsistency between Exhibits A through D will be resolved in their listed order, and 2) The applicable service Addendum will take precedence over the main body of the Agreement and the Exhibits.

Section 2 DEFINITIONS

Capitalized terms used in this Agreement have the following meanings:

"Acceptance Tests" means those tests described in the Acceptance Test Plan.

"Addendum (Addenda)" is the title of the document(s) containing a specific set of terms and conditions applicable to a particular service or other offering beyond the Communication System and System implementation services. The terms in the Addendum are applicable only to the specific service or offering described therein.

"Administrative User Credentials" means an account that has total access over the operating system, files, end user accounts and passwords at either the System level or box level. Customer's personnel with access to the Administrative User Credentials may be referred to as the Administrative User.

"Beneficial Use" means when Customer first uses the System or a Subsystem for operational purposes (excluding training or testing).

"Confidential Information" means all information consistent with the fulfillment of this Agreement that is (i) disclosed under this Agreement in oral, written, graphic, machine recognizable, and/or sample form, being clearly designated, labeled or marked as confidential or its equivalent or (ii) obtained by examination, testing or analysis of any hardware, software or any component part thereof provided by discloser to

recipient. The nature and existence of this Agreement are considered Confidential Information. Confidential Information that is disclosed orally must be identified as confidential at the time of disclosure and confirmed by the discloser by submitting a written document to the recipient within thirty (30) days after such disclosure. The written document must contain a summary of the Confidential Information disclosed with enough specificity for identification purpose and must be labeled or marked as confidential or its equivalent.

“Contract Price” means the price for the System and implementation Services, excluding applicable sales or similar taxes and freight charges. Further, unless otherwise stated in Exhibit B, “Payment” or the pricing pages of the proposal, recurring fees for maintenance, SUA, or subscription services are not included in the Contract Price.

“Deliverables” means all written information (such as reports, specifications, designs, plans, drawings, analytics, Solution Data, or other technical or business information) that Motorola prepares for Customer in the performance of the Services and is obligated to provide to Customer under this Agreement. The Deliverables, if any, are more fully described in the Statement of Work.

“Derivative Proprietary Materials” means derivatives of the Proprietary Materials that Motorola may from time to time, including during the course of providing the Services, develop and/or use and/or to which Motorola provides Customer access.

“Effective Date” means that date upon which the last Party executes this Agreement.

“Equipment” means the hardware components of the Solution that Customer purchases from Motorola under this Agreement. Equipment that is part of the System is described in the Equipment List.

“Feedback” means comments or information, in oral or written form, given to Motorola by Customer in connection with or relating to Equipment or Services, during the term of this Agreement.

“Force Majeure” means an event, circumstance, or act that is beyond a Party’s reasonable control, such as an act of God, an act of the public enemy, an act of a government entity, strikes, other labor disturbances, supplier performance, hurricanes, earthquakes, fires, floods, epidemics, embargoes, war, riots, or any other similar cause.

“Motorola Software” means software that Motorola or its affiliated companies owns.

“Non-Motorola Software” means software that a party other than Motorola or its affiliated companies owns.

“Open Source Software” (also called “freeware” or “shareware”) means software with either freely obtainable source code, license for modification, or permission for free distribution.

“Proprietary Materials” means certain software tools and/or other technical materials, including, but not limited to, data, modules, components, designs, utilities, subsets, objects, program listings, models, methodologies, programs, systems, analysis frameworks, leading practices and specifications which Motorola has developed prior to, or independently from, the provision of the Services and/or which Motorola licenses from third parties.

“Proprietary Rights” means the patents, patent applications, inventions, copyrights, trade secrets, trademarks, trade names, mask works, know-how, and other intellectual property rights in and to the Equipment and Software, including those created or produced by Motorola under this Agreement and any corrections, bug fixes, enhancements, updates or modifications to or derivative works from the Software whether made by Motorola or another party.

“Services” means system implementation, maintenance, support, subscription, or other professional services provided under this Agreement, which may be further described in the applicable Addendum

and/or SOW.

“Software” (i) means proprietary software in object code format, and adaptations, translations, de-compilations, disassemblies, emulations, or derivative works of such software; (ii) means any modifications, enhancements, new versions and new releases of the software provided by Motorola; and (iii) may contain one or more items of software owned by a third party supplier. The term "Software" does not include any third party software provided under separate license or third party software not licensable under the terms of this Agreement.

“Software License Agreement” means the Motorola Software License Agreement (Exhibit A).

“Software Support Policy” (“SwSP”) means the policy set forth at https://www.motorolasolutions.com/content/dam/msi/secure/services/software_policy.pdf describing the specific technical support that will be provided to Customers under the Warranty Period and during any paid maintenance support period for Motorola Software. This policy may be modified from time to time at Motorola’s discretion.

“Solution” means the combination of the System(s) and Services provided by Motorola under this Agreement.

“Solution Data” means Customer data that is transformed, altered, processed, aggregated, correlated or operated on by Motorola, its vendors or other data sources and data that has been manipulated or retrieved using Motorola know-how to produce value-added content to data consumers, including customers or citizens which is made available to Customer with the Solution and Services.

“Specifications” means the functionality and performance requirements that are described in the Technical and Implementation Documents.

“SUA” or “SUA II” means Motorola’s Software Upgrade Agreement program.

“Subsystem” means a major part of the System that performs specific functions or operations. Subsystems are described in the Technical and Implementation Documents.

“System” means the Equipment, including incidental hardware and materials, Software, and design, installation and implementation services that are combined together into an integrated system; the System(s) is (are) described in the Technical and Implementation Documents.

“System Acceptance” means the Acceptance Tests have been successfully completed.

“System Data” means data created by, in connection with or in relation to Equipment or the performance of Services under this Agreement.

“Warranty Period” for System Hardware, Software, or services related to system implementation means one (1) year from the date of System Acceptance or Beneficial Use, whichever occurs first. Unless otherwise stated in the applicable Addendum, Warranty Period for other Services means ninety (90) days from performance of the Service.

Section 3 SCOPE OF AGREEMENT AND TERM

3.1. **SCOPE OF WORK.** Motorola will provide, install and test the System(s), and perform its other contractual responsibilities to provide the Solution, all in accordance with this Agreement. Customer will perform its contractual responsibilities in accordance with this Agreement.

3.2. **CHANGE ORDERS.** Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform

this Agreement, the Parties will agree to an equitable adjustment of the Contract Price or applicable subscription fees, Performance Schedule, or both, and will reflect the adjustment in a change order or Addendum. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.

3.3. TERM. Unless terminated in accordance with other provisions of this Agreement or extended by mutual agreement of the Parties, the term of this Agreement begins on the Effective Date and continues until the date of Final Project Acceptance or expiration of the Warranty Period, or completion of the Services, whichever occurs last. The term and the effective date of recurring Services will be set forth in the applicable Addendum.

3.4. ADDITIONAL EQUIPMENT OR SOFTWARE. For three (3) years after the expiration date of the Agreement, Customer may order additional Equipment or Software, if it is then available. Each purchase order must refer to this Agreement, the expiration date of the Agreement, and must specify the pricing and delivery terms. The Parties agree that, notwithstanding expiration of the Agreement, the applicable provisions of this Agreement (except for pricing, delivery, passage of title and risk of loss to Equipment, warranty commencement, and payment terms) will govern the purchase and sale of the additional Equipment or Software. Additional or contrary terms in the purchase order will be inapplicable, unless signed by both parties. Title and risk of loss to additional Equipment will pass at shipment, warranty will commence upon delivery, and payment is due within thirty (30) days after the invoice date. Motorola will send Customer an invoice as the additional Equipment is shipped or Software is licensed. Alternatively, Customer may register with and place orders through the Motorola Solutions Customer Portal eCommerce Shop, and this Agreement will be the "Underlying Agreement" for those eCommerce transactions rather than the eCommerce Shop Terms and Conditions of Sale. eCommerce Shop registration and other information may be found at https://www.motorolasolutions.com/en_us/registration and the shop support telephone number is (800) 814-0601.

3.5. MOTOROLA SOFTWARE. Any Motorola Software, including subsequent releases, is licensed to Customer solely in accordance with the Software License Agreement. Customer hereby accepts and agrees to abide by all of the terms and restrictions of the Software License Agreement.

3.6. NON-MOTOROLA SOFTWARE. Any Non-Motorola Software is licensed to Customer in accordance with the standard license, terms, and restrictions of the copyright owner on the Effective Date unless the copyright owner has granted to Motorola the right to sublicense the Non-Motorola Software pursuant to the Software License Agreement, in which case it applies and the copyright owner will have all of Licensor's rights and protections under the Software License Agreement. Motorola makes no representations or warranties of any kind regarding Non-Motorola Software. Non-Motorola Software may include Open Source Software.

3.7. SUBSTITUTIONS. At no additional cost to Customer, Motorola may substitute any Equipment, Software, or services to be provided by Motorola, if the substitute meets or exceeds the Specifications and is of equivalent or better quality to the Customer. Any substitution will be reflected in a change order.

3.8. OPTIONAL EQUIPMENT OR SOFTWARE. This paragraph applies only if a "Priced Options" exhibit is shown in Section 1, or if the parties amend this Agreement to add a Priced Options exhibit. During the term of the option as stated in the Priced Options exhibit (or if no term is stated, then for one (1) year after the Effective Date), Customer has the right and option to purchase the equipment, software, and related services that are described in the Priced Options exhibit. Customer may exercise this option by giving written notice to Seller which must designate what equipment, software, and related services Customer is selecting (including quantities, if applicable). To the extent they apply, the terms and conditions of this Agreement will govern the transaction; however, the parties acknowledge that certain provisions must be agreed upon, and they agree to negotiate those in good faith promptly after Customer delivers the option exercise notice. Examples of provisions that may need to be negotiated are: specific lists of deliverables, statements of work, acceptance test plans, delivery and implementation schedules, payment terms, maintenance and support provisions, additions to or modifications of the Software License

Agreement, hosting terms, and modifications to the acceptance and warranty provisions.

Section 4 SERVICES

4.1. If Customer desires and Motorola agrees to continue Services beyond the Term, Customer's issuance and Motorola's acceptance of a purchase order for Services will serve as an automatic extension of the Agreement for purposes of the continuing Services. Only the terms and conditions applicable to the performance of Services will apply to the extended Agreement.

4.2. During the Warranty Period, in addition to warranty services, Motorola will provide maintenance Services for the Equipment and support for the Motorola Software pursuant to the applicable maintenance and support Statements of Work. Support for the Motorola Software will be in accordance with Motorola's established Software Support Policy. Copies of the SwSP can be found at https://www.motorolasolutions.com/content/dam/msi/secure/services/software_policy.pdf and will be sent by mail, email or fax to Customer upon written request. Maintenance Services and support during the Warranty Period are included in the Contract Price. Unless already included in the Contract Price, if Customer wishes to purchase 1) additional maintenance or software support services during the Warranty Period; or 2) continue or expand maintenance, software support, installation, and/or SUA services after the Warranty Period, Motorola will provide the description of and pricing for such services in a separate proposal document. Unless otherwise agreed by the parties in writing, the terms and conditions in this Agreement applicable to maintenance, support, installation, and/or SUA Services, will be included in the Maintenance and Support Addendum, SUA Addendum, the applicable Statements of Work, and the proposal, (if applicable). These collective terms will govern the provision of such Services.

To obtain any such additional Services, Customer will issue a purchase order referring to this Agreement and the separate proposal document. Omission of reference to this Agreement in Customer's purchase order will not affect the applicability of this Agreement. Motorola's proposal may include a cover page entitled "Service Agreement" or "Installation Agreement", as applicable, and other attachments. These cover pages and other attachments are incorporated into this Agreement by this reference

4.3. **PROFESSIONAL AND SUBSCRIPTION SERVICES.** If Customer purchases professional or subscription Services as part of the Solution, additional or different terms specific to such Service will be included in the applicable Addendum and will apply to those Services. Customer may purchase additional professional or subscription services by issuing a purchase order referencing this Agreement and Motorola's proposal for such additional services.

4.4. Any information in the form of specifications, drawings, reprints, technical information or otherwise furnished to Customer in providing Services under this Agreement or Motorola data viewed, accessed, will remain Motorola's property, will be deemed proprietary, Confidential Information. This Confidential Information will be promptly returned at Motorola's request.

4.5. **TOOLS.** All tools, equipment, dies, gauges, models, drawings or other materials paid for or furnished by Motorola for the purpose of providing Services under this Agreement will be and remain the sole property of Motorola. Customer will safeguard all such property while it is in Customer's custody or control, be liable for any loss or damage to this property, and return it to Motorola upon request. This property will be held by Customer for Motorola's use without charge and may be removed from Customer's premises by Motorola at any time without restriction. Upon termination of the contract for any reason, Customer shall return to Motorola all equipment delivered to Customer.

4.6. **COVENANT NOT TO EMPLOY.** During the term of this Agreement and continuing for a period of two (2) years thereafter, Customer will not hire, engage on contract, solicit the employment of, or recommend employment to any third party of any employee of Motorola or its subcontractors without the prior written authorization of Motorola. This provision applies only to those employees of Motorola or its subcontractors who are responsible for rendering Services under this Agreement. If this provision is found

to be overly broad under applicable law, it will be modified as necessary to conform to applicable law.

4.7. **CUSTOMER OBLIGATIONS.** If the applicable Statement of Work or Addendum contains assumptions that affect the Services or Deliverables, Customer will verify that they are accurate and complete. Any information that Customer provides to Motorola concerning the Services or Deliverables will be accurate and complete in all material respects. Customer will make timely decisions and obtain any required management approvals that are reasonably necessary for Motorola to perform the Services and its other duties under this Agreement. Unless the Statement of Work states the contrary, Motorola may rely upon and is not required to evaluate, confirm, reject, modify, or provide advice concerning any assumptions and Customer-provided information, decisions and approvals described in this paragraph.

4.8. **ASSUMPTIONS.** If any assumptions or conditions contained in this Agreement, applicable Addenda or Statements of Work prove to be incorrect or if Customer's obligations are not performed, Motorola's ability to perform under this Agreement may be impacted and changes to the Contract Price, subscription fees, project schedule, Deliverables, or other changes may be necessary.

4.9. **NON-PRECLUSION.** If, as a result of the Services performed under this Agreement, Motorola recommends that Customer purchase products or other services, nothing in this Agreement precludes Motorola from participating in a future competitive bidding process or otherwise offering or selling the recommended products or other services to Customer. Customer represents that this paragraph does not violate its procurement or other laws, regulations, or policies.

4.10. **PROPRIETARY MATERIALS.** Customer acknowledges that Motorola may use and/or provide Customer with access to Proprietary Materials and Derivative Proprietary Materials. The Proprietary Materials and the Derivative Proprietary Materials are the sole and exclusive property of Motorola and Motorola retains all right, title and interest in and to the Proprietary Materials and Derivative Proprietary Materials.

4.11. **ADDITIONAL SERVICES.** Any services performed by Motorola outside the scope of this Agreement at the direction of Customer will be considered to be additional Services which are subject to additional charges. Any agreement to perform additional Services will be reflected in a written and executed change order, Addendum or amendment to this Agreement.

Section 5 PERFORMANCE SCHEDULE

The Parties will perform their respective responsibilities in accordance with the Performance Schedule. By executing this Agreement, Customer authorizes Motorola to proceed with contract performance.

Section 6 CONTRACT PRICE, PAYMENT AND INVOICING

6.1. Customer affirms that a purchase order or notice to proceed is not required for contract performance or for subsequent years of service, if any, and that sufficient funds have been appropriated in accordance with applicable law. The Customer will pay all invoices as received from Motorola and any changes in scope will be subject to the change order process as described in this Agreement. At the time of execution of this Agreement, the Customer will provide all necessary reference information to include on invoices for payment in accordance with this Agreement.

6.2. **CONTRACT PRICE.** The Contract Price in U.S. dollars is \$ 1,024,964.76_____. If applicable, a pricing summary is included with the Payment schedule in Exhibit B. Motorola has priced the Services, Software, and Equipment as an integrated System. A change in Software or Equipment quantities, or Services, may affect the overall Contract Price, including discounts if applicable. Fees for professional, SUA, and/or subscription services which are not included in the Contract Price may be listed in Exhibit B, the pricing pages of the proposal, or the applicable Addendum.

6.3. **INVOICING AND PAYMENT.** Motorola will submit invoices to Customer according to the Payment schedule in Exhibit B. Invoices will be mailed or emailed to Customer pursuant to Section 6.5, Invoicing and Shipping Addresses. Except for a payment that is due on the Effective Date, Customer will make payments to Motorola within thirty (30) days after the date of each invoice. Customer will make payments when due in the form of a wire transfer, check, or cashier's check from a U.S. financial institution. Overdue invoices will bear simple interest at the maximum allowable rate. For reference, the Federal Tax Identification Number for Motorola is 36-1115800.

6.4. **FREIGHT, TITLE, AND RISK OF LOSS.** Motorola will pre-pay and add all freight charges to the invoices. Title and risk of loss to the Equipment will pass to Customer upon shipment. Title to Software will not pass to Customer at any time. Motorola will pack and ship all Equipment in accordance with good commercial practices.

6.5. **INVOICING AND SHIPPING ADDRESSES.** Invoices will be sent to the Customer at the following address:

Name: Bi-State Development Agency – Attn: Rick Farthing _____
Address: 211 N Broadway Ste 700 _____
Phone: St Louis, MO 63102 _____

E-INVOICE. To receive invoices via email:

Customer Account Number: 1012672532 _____
Customer Accounts Payable Email: BS-invoices@dataserv-stl.com _____
Customer CC(optional) Email: rrfarthing@metrostlouis.org _____

The address which is the ultimate destination where the Equipment will be delivered to Customer is: Name:

Address: _____

The Equipment will be shipped to the Customer at the following address (insert if this information is known):

Name: Bi-State Development _____
Address: 565 Debaliviere Ave, St Louis, MO 63112, Radio Shop: Attn Rick Farthing _____
Phone: 314-982-1400 x2580 _____

Customer may change this information by giving written notice to Motorola.

Section 7 SITES AND SITE CONDITIONS

7.1. **ACCESS TO SITES.** In addition to its responsibilities described elsewhere in this Agreement, Customer will provide a designated project manager; all necessary construction and building permits, zoning variances, licenses, and any other approvals that are necessary to develop or use the sites and mounting locations; and access to the worksites or vehicles identified in the Technical and Implementation Documents as reasonably requested by Motorola so that it may perform its duties in accordance with the Performance Schedule and Statement of Work. If the Statement of Work so indicates, Motorola may assist Customer in the local building permit process.

7.2. **SITE CONDITIONS.** Customer will ensure that all work sites it provides will be safe, secure, and in compliance with all applicable industry and OSHA standards. To the extent applicable and unless the Statement of Work states to the contrary, Customer will ensure that these work sites have adequate: physical space; air conditioning and other environmental conditions; adequate and appropriate electrical power outlets, distribution, equipment and connections; and adequate telephone or other communication lines (including modem access and adequate interfacing networking capabilities), all for the installation, use and maintenance of the System. Before installing the Equipment or Software at a work site, Motorola may inspect the work site and advise Customer of any apparent deficiencies or non-conformities with the requirements of this Section. This Agreement is predicated upon normal soil conditions as defined by the version of E.I.A. standard RS-222 in effect on the Effective Date.

7.3. SITE ISSUES. If a Party determines that the sites identified in the Technical and Implementation Documents are no longer available or desired, or if subsurface, structural, adverse environmental or latent conditions at any site differ from those indicated in the Technical and Implementation Documents, the Parties will promptly investigate the conditions and will select replacement sites or adjust the installation plans and specifications as necessary. If change in sites or adjustment to the installation plans and specifications causes a change in the cost or time to perform, the Parties will equitably amend the Contract Price, Performance Schedule, or both, by a change order.

Section 8 TRAINING

Any training to be provided by Motorola to Customer will be described in the applicable Statement of Work. Customer will notify Motorola immediately if a date change for a scheduled training program is required. If Motorola incurs additional costs because Customer reschedules a training program less than thirty (30) days before its scheduled start date, Motorola may recover these additional costs.

Section 9 SYSTEM ACCEPTANCE

9.1. COMMENCEMENT OF ACCEPTANCE TESTING. Motorola will provide to Customer at least ten (10) days notice before the Acceptance Tests commence. System testing will occur only in accordance with the Acceptance Test Plan.

9.2. SYSTEM ACCEPTANCE. System Acceptance will occur upon successful completion of the Acceptance Tests. Upon System Acceptance, the Parties will memorialize this event by promptly executing a System Acceptance Certificate. If the Acceptance Test Plan includes separate tests for individual Subsystems or phases of the System, acceptance of the individual Subsystem or phase will occur upon the successful completion of the Acceptance Tests for the Subsystem or phase, and the Parties will promptly execute an acceptance certificate for the Subsystem or phase. If Customer believes the System has failed the completed Acceptance Tests, Customer will provide to Motorola a written notice that includes the specific details of the failure. If Customer does not provide to Motorola a failure notice within thirty (30) days after completion of the Acceptance Tests, System Acceptance will be deemed to have occurred as of the completion of the Acceptance Tests. Minor omissions or variances in the System that do not materially impair the operation of the System as a whole will not postpone System Acceptance or Subsystem acceptance, but will be corrected according to a mutually agreed schedule.

9.3. BENEFICIAL USE. Customer acknowledges that Motorola's ability to perform its implementation and testing responsibilities may be impeded if Customer begins using the System before System Acceptance. Therefore, Customer will not commence Beneficial Use before System Acceptance without Motorola's prior written authorization, which will not be unreasonably withheld. Motorola is not responsible for System performance deficiencies that occur during unauthorized Beneficial Use. Upon commencement of Beneficial Use, Customer assumes responsibility for the use and operation of the System.

9.4. FINAL PROJECT ACCEPTANCE. Final Project Acceptance will occur after System Acceptance when all deliverables and other work have been completed. When Final Project Acceptance occurs, the parties will promptly memorialize this final event by so indicating on the System Acceptance Certificate.

Section 10 REPRESENTATIONS AND WARRANTIES

10.1. SYSTEM FUNCTIONALITY. Motorola represents that the System will perform in accordance with the Specifications in all material respects. Upon System Acceptance or Beneficial Use, whichever occurs first, this System functionality representation is fulfilled. Motorola is not responsible for System performance deficiencies that are caused by ancillary equipment not furnished by Motorola which is attached to or used in connection with the System or for reasons or parties beyond Motorola's control, such as natural causes; the construction of a building that adversely affects the microwave path reliability or radio frequency (RF) coverage; the addition of frequencies at System sites that cause RF interference or intermodulation; or

Customer changes to load usage or configuration outside the Specifications.

10.2. **EQUIPMENT WARRANTY.** During the Warranty Period, Motorola warrants that the Equipment under normal use and service will be free from material defects in materials and workmanship. If System Acceptance is delayed beyond six (6) months after shipment of the Equipment by events or causes beyond Motorola's control, this warranty expires eighteen (18) months after the shipment of the Equipment.

10.3. **SOFTWARE WARRANTY.** Except as described in the SwSP and unless otherwise stated in the Software License Agreement, during the Warranty Period, Motorola warrants the Software in accordance with the warranty terms set forth in the Software License Agreement and the provisions of this Section that are applicable to the Software. If System Acceptance is delayed beyond six (6) months after shipment of the Motorola Software by events or causes beyond Motorola's control, this warranty expires eighteen (18) months after the shipment of the Motorola Software. **Nothing in this Warranty provision is intended to conflict or modify the Software Support Policy. In the event of an ambiguity or conflict between the Software Warranty and Software Support Policy, the Software Support Policy governs.**

10.4. **EXCLUSIONS TO EQUIPMENT AND SOFTWARE WARRANTIES.** These warranties do not apply to: (i) defects or damage resulting from: use of the Equipment or Software in other than its normal, customary, and authorized manner; accident, liquids, neglect, or acts of God; testing, maintenance, disassembly, repair, installation, alteration, modification, or adjustment not provided or authorized in writing by Motorola; Customer's failure to comply with all applicable industry and OSHA standards; (ii) breakage of or damage to antennas unless caused directly by defects in material or workmanship; (iii) Equipment that has had the serial number removed or made illegible; (iv) batteries (because they carry their own separate limited warranty) or consumables; (v) freight costs to ship Equipment to the repair depot; (vi) scratches or other cosmetic damage to Equipment surfaces that does not affect the operation of the Equipment; and (vii) normal or customary wear and tear.

10.5. **SERVICE WARRANTY.** During the Warranty Period, Motorola warrants that the Services will be provided in a good and workmanlike manner and will conform in all material respects to the applicable Statement of Work. Services will be free of defects in materials and workmanship for a period of ninety (90) days from the date the performance of the Services are completed. Customer acknowledges that the Deliverables may contain recommendations, suggestions or advice from Motorola to Customer (collectively, "recommendations"). Motorola makes no warranties concerning those recommendations, and Customer alone accepts responsibility for choosing whether and how to implement the recommendations and the results to be realized from implementing them.

10.6. **WARRANTY CLAIMS.** To assert a warranty claim, Customer must notify Motorola in writing of the claim before the expiration of the Warranty Period. Upon receipt of this notice, Motorola will investigate the warranty claim. If this investigation confirms a valid Equipment or Software warranty claim, Motorola will (at its option and at no additional charge to Customer) repair the defective Equipment or Motorola Software, replace it with the same or equivalent product, or refund the price of the defective Equipment or Motorola Software. These actions will be the full extent of Motorola's liability for the warranty claim. In the event of a valid Services warranty claim, Customer's sole remedy is to require Motorola to re-perform the non-conforming Service or to refund, on a pro-rata basis, the fees paid for the non-conforming Service. If this investigation indicates the warranty claim is not valid, then Motorola may invoice Customer for responding to the claim on a time and materials basis using Motorola's then current labor rates. Repaired or replaced product is warranted for the balance of the original applicable warranty period. All replaced products or parts will become the property of Motorola.

10.7. **ORIGINAL END USER IS COVERED.** These express limited warranties are extended by Motorola to the original user purchasing the System or Services for commercial, industrial, or governmental use only, and are not assignable or transferable.

10.8. **DISCLAIMER OF OTHER WARRANTIES. THESE WARRANTIES ARE THE COMPLETE WARRANTIES FOR THE EQUIPMENT AND MOTOROLA SOFTWARE PROVIDED UNDER THIS**

AGREEMENT AND ARE GIVEN IN LIEU OF ALL OTHER WARRANTIES. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE.

Section 11 DELAYS

11.1. **FORCE MAJEURE.** Neither Party will be liable for its non-performance or delayed performance if caused by a Force Majeure. A Party that becomes aware of a Force Majeure that will significantly delay performance will notify the other Party promptly (but in no event later than fifteen days) after it discovers the Force Majeure. If a Force Majeure occurs, the Parties will execute a change order to extend the Performance Schedule or applicable Addenda for a time period that is reasonable under the circumstances.

11.2. **PERFORMANCE SCHEDULE DELAYS CAUSED BY CUSTOMER.** If Customer (including its other contractors) delays the Performance Schedule, it will make the promised payments according to the Payment schedule as if no delay occurred; and the Parties will execute a change order to extend the Performance Schedule and, if requested, compensate Motorola for all reasonable charges incurred because of the delay. Delay charges may include costs incurred by Motorola or its subcontractors for additional freight, warehousing and handling of Equipment; extension of the warranties; travel; suspending and re-mobilizing the work; additional engineering, project management, and standby time calculated at then current rates; and preparing and implementing an alternative implementation plan.

Section 12 DISPUTES

The Parties will use the following procedure to address any dispute arising under this Agreement (a "Dispute").

12.1. **GOVERNING LAW.** This Agreement will be governed by and construed in accordance with the laws of the State in which the System is installed.

12.2. **NEGOTIATION.** Either Party may initiate the Dispute resolution procedures by sending a notice of Dispute ("Notice of Dispute"). The Parties will attempt to resolve the Dispute promptly through good faith negotiations including 1) timely escalation of the Dispute to executives who have authority to settle the Dispute and who are at a higher level of management than the persons with direct responsibility for the matter and 2) direct communication between the executives. If the Dispute has not been resolved within ten (10) days from the Notice of Dispute, the Parties will proceed to mediation.

12.3. **MEDIATION.** The Parties will choose an independent mediator within thirty (30) days of a notice to mediate from either Party ("Notice of Mediation"). Neither Party may unreasonably withhold consent to the selection of a mediator. If the Parties are unable to agree upon a mediator, either Party may request that American Arbitration Association nominate a mediator. Each Party will bear its own costs of mediation, but the Parties will share the cost of the mediator equally. Each Party will participate in the mediation in good faith and will be represented at the mediation by a business executive with authority to settle the Dispute.

12.4. **LITIGATION, VENUE and JURISDICTION.** If a Dispute remains unresolved for sixty (60) days after receipt of the Notice of Mediation, either Party may then submit the Dispute to a court of competent jurisdiction in the state in which the System is installed. Each Party irrevocably agrees to submit to the exclusive jurisdiction of the courts in such state over any claim or matter arising under or in connection with this Agreement.

12.5. **CONFIDENTIALITY.** All communications pursuant to subsections 12.2 and 12.3 will be treated as compromise and settlement negotiations for purposes of applicable rules of evidence and any additional confidentiality protections provided by applicable law. The use of these Dispute resolution procedures will not be construed under the doctrines of laches, waiver or estoppel to affect adversely the rights of either

Party.

Section 13 DEFAULT AND TERMINATION

13.1. **DEFAULT BY A PARTY.** If either Party fails to perform a material obligation under this Agreement, the other Party may consider the non-performing Party to be in default (unless a Force Majeure causes the failure) and may assert a default claim by giving the non-performing Party a written and detailed notice of default. Except for a default by Customer for failing to pay any amount when due under this Agreement which must be cured immediately, the defaulting Party will have thirty (30) days after receipt of the notice of default to either cure the default or, if the default is not curable within thirty (30) days, provide a written cure plan. The defaulting Party will begin implementing the cure plan immediately after receipt of notice by the other Party that it approves the plan. If Customer is the defaulting Party, Motorola may stop work on the project until it approves the Customer's cure plan.

13.2. **FAILURE TO CURE.** If a defaulting Party fails to cure the default as provided above in Section 13.1, unless otherwise agreed in writing, the non-defaulting Party may terminate any unfulfilled portion of this Agreement. In the event of termination for default, the defaulting Party will promptly return to the non-defaulting Party any of its Confidential Information. If Customer is the non-defaulting Party, terminates this Agreement as permitted by this Section, and completes the System through a third Party, Customer may as its exclusive remedy recover from Motorola reasonable costs incurred to complete the System to a capability not exceeding that specified in this Agreement less the unpaid portion of the Contract Price. Customer will mitigate damages and provide Motorola with detailed invoices substantiating the charges. In the event Customer elects to terminate this Agreement for any reason other than default, Customer shall pay Motorola for the conforming Equipment and/or Software delivered and all services performed.

Section 14 INDEMNIFICATION

14.1. **GENERAL INDEMNITY BY Motorola.** Motorola will indemnify and hold Customer harmless from any and all liability, expense, judgment, suit, cause of action, or demand for personal injury, death, or direct damage to tangible property which may accrue against Customer to the extent it is caused by the negligence of Motorola, its subcontractors, or their employees or agents, while performing their duties under this Agreement, if Customer gives Motorola prompt, written notice of any claim or suit. Customer will cooperate with Motorola in its defense or settlement of the claim or suit. This Section sets forth the full extent of Motorola's general indemnification of Customer from liabilities that are in any way related to Motorola's performance under this Agreement.

14.2. **GENERAL INDEMNITY BY CUSTOMER.** Customer will indemnify and hold Motorola harmless from any and all liability, expense, judgment, suit, cause of action, or demand for personal injury, death, or direct damage to tangible property which may accrue against Motorola to the extent it is caused by the negligence of Customer, its other contractors, or their employees or agents, while performing their duties under this Agreement, if Motorola gives Customer prompt, written notice of any the claim or suit. Motorola will cooperate with Customer in its defense or settlement of the claim or suit. This Section sets forth the full extent of Customer's general indemnification of Motorola from liabilities that are in any way related to Customer's performance under this Agreement.

14.3. **PATENT AND COPYRIGHT INFRINGEMENT.**

14.3.1. Motorola will defend at its expense any suit brought against Customer to the extent it is based on a third-party claim alleging that the Equipment manufactured by Motorola or the Motorola Software ("Motorola Product") directly infringes a United States patent or copyright ("Infringement Claim"). Motorola's duties to defend and indemnify are conditioned upon: Customer promptly notifying Motorola in writing of the Infringement Claim; Motorola having sole control of the defense of the suit and all negotiations for its settlement or compromise; and Customer providing to Motorola cooperation and, if requested by Motorola, reasonable assistance in the defense of the Infringement Claim. In addition to Motorola's obligation to defend, and subject to the same conditions, Motorola will pay all damages finally awarded against Customer

by a court of competent jurisdiction for an Infringement Claim or agreed to, in writing, by Motorola in settlement of an Infringement Claim.

14.3.2 If an Infringement Claim occurs, or in Motorola's opinion is likely to occur, Motorola may at its option and expense: (a) procure for Customer the right to continue using the Motorola Product; (b) replace or modify the Motorola Product so that it becomes non-infringing while providing functionally equivalent performance; or (c) accept the return of the Motorola Product and grant Customer a credit for the Motorola Product, less a reasonable charge for depreciation. The depreciation amount will be calculated based upon generally accepted accounting standards.

14.3.3 Motorola will have no duty to defend or indemnify for any Infringement Claim that is based upon: (a) the combination of the Motorola Product with any software, apparatus or device not furnished by Motorola; (b) the use of ancillary equipment or software not furnished by Motorola and that is attached to or used in connection with the Motorola Product; (c) Motorola Product designed or manufactured in accordance with Customer's designs, specifications, guidelines or instructions, if the alleged infringement would not have occurred without such designs, specifications, guidelines or instructions; (d) a modification of the Motorola Product by a party other than Motorola; (e) use of the Motorola Product in a manner for which the Motorola Product was not designed or that is inconsistent with the terms of this Agreement; or (f) the failure by Customer to install an enhancement release to the Motorola Software that is intended to correct the claimed infringement. In no event will Motorola's liability resulting from its indemnity obligation to Customer extend in any way to royalties payable on a per use basis or the Customer's revenues, or any royalty basis other than a reasonable royalty based upon revenue derived by Motorola from Customer from sales or license of the infringing Motorola Product.

14.3.4. This Section 14 provides Customer's sole and exclusive remedies and Motorola's entire liability in the event of an Infringement Claim. Customer has no right to recover and Motorola has no obligation to provide any other or further remedies, whether under another provision of this Agreement or any other legal theory or principle, in connection with an Infringement Claim. In addition, the rights and remedies provided in this Section 14 are subject to and limited by the restrictions set forth in Section 15.

Section 15 LIMITATION OF LIABILITY

Except for personal injury or death, Motorola's total liability, whether for breach of contract, warranty, negligence, strict liability in tort, indemnification, or otherwise, will be limited to the direct damages recoverable under law, but not to exceed the price of the Equipment, Software, or implementation and other one-time Services with respect to which losses or damages are claimed. With respect to all subscription or other ongoing Services and unless as otherwise provided under the applicable Addenda, Motorola's total liability will be limited to the direct damages recoverable under law, but not to exceed the price of twelve (12) months of Services preceding the incident giving rise to the claim. **ALTHOUGH THE PARTIES ACKNOWLEDGE THE POSSIBILITY OF SUCH LOSSES OR DAMAGES, THEY AGREE THAT MOTOROLA WILL NOT BE LIABLE FOR ANY COMMERCIAL LOSS, INCONVENIENCE, LOSS OF USE, LOSS TIME, DATA, GOODWILL, REVENUES, PROFITS OR SAVINGS; OR OTHER SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO OR ARISING FROM THIS AGREEMENT, THE SALE OR USE OF THE EQUIPMENT OR SOFTWARE, OR THE PERFORMANCE OF SERVICES BY MOTOROLA PURSUANT TO THIS AGREEMENT.** This limitation of liability provision survives the expiration or termination of the Agreement and applies notwithstanding any contrary provision. No action for contract breach or otherwise relating to the transactions contemplated by this Agreement may be brought more than one (1) year after the accrual of the cause of action, except for money due upon an open account.

Section 16 CONFIDENTIALITY AND PROPRIETARY RIGHTS

16.1. CONFIDENTIAL INFORMATION.

16.1.1. Each party is a disclosing party ("Discloser") and a receiving party ("Recipient") under this Agreement. All Deliverables will be deemed to be Motorola's Confidential Information. During the term of this Agreement and for a period of three (3) years from the expiration or termination of this Agreement, Recipient will (i) not disclose Confidential Information to any third party; (ii) restrict disclosure of Confidential Information to only those employees (including, but not limited to, employees of any wholly owned subsidiary, a parent company, any other wholly owned subsidiaries of the same parent company), agents or consultants who must be directly involved with the Confidential Information for the purpose and who are bound by confidentiality terms substantially similar to those in this Agreement; (iii) not copy, reproduce, reverse engineer, decompile, or disassemble any Confidential Information; (iv) use the same degree of care as for its own information of like importance, but at least use reasonable care, in safeguarding against disclosure of Confidential Information; (v) promptly notify Discloser upon discovery of any unauthorized use or disclosure of the Confidential Information and take reasonable steps to regain possession of the Confidential Information and prevent further unauthorized actions or other breach of this Agreement; and (vi) only use the Confidential Information as needed to fulfill this Agreement.

16.1.2. Recipient is not obligated to maintain as confidential, Confidential Information that Recipient can demonstrate by documentation (i) is now available or becomes available to the public without breach of this agreement; (ii) is explicitly approved for release by written authorization of Discloser; (iii) is lawfully obtained from a third party or parties without a duty of confidentiality; (iv) is known to the Recipient prior to such disclosure; or (v) is independently developed by Recipient without the use of any of Discloser's Confidential Information or any breach of this Agreement.

16.1.3. All Confidential Information remains the property of the Discloser and will not be copied or reproduced without the express written permission of the Discloser, except for copies that are absolutely necessary in order to fulfill this Agreement. Within ten (10) days of receipt of Discloser's written request, Recipient will return all Confidential Information to Discloser along with all copies and portions thereof, or certify in writing that all such Confidential Information has been destroyed. However, Recipient may retain one (1) archival copy of the Confidential Information that it may use only in case of a dispute concerning this Agreement. No license, express or implied, in the Confidential Information is granted other than to use the Confidential Information in the manner and to the extent authorized by this Agreement. The Discloser warrants that it is authorized to disclose any Confidential Information it discloses pursuant to this Agreement.

16.2. PRESERVATION OF MOTOROLA'S PROPRIETARY RIGHTS. Motorola, the third party manufacturer of any Equipment, and the copyright owner of any Non-Motorola Software own and retain all of their respective Proprietary Rights in the Equipment and Software, and nothing in this Agreement is intended to restrict their Proprietary Rights. All intellectual property developed, originated, or prepared by Motorola in connection with providing to Customer the Equipment, Software, or related services remain vested exclusively in Motorola, and this Agreement does not grant to Customer any shared development rights of intellectual property. Except as explicitly provided in the Software License Agreement, Motorola does not grant to Customer, either directly or by implication, estoppel, or otherwise, any right, title or interest in Motorola's Proprietary Rights. Customer will not modify, disassemble, peel components, decompile, otherwise reverse engineer or attempt to reverse engineer, derive source code or create derivative works from, adapt, translate, merge with other software, reproduce, distribute, sublicense, sell or export the Software, or permit or encourage any third party to do so. The preceding sentence does not apply to Open Source Software which is governed by the standard license of the copyright owner.

16.3 VOLUNTARY DISCLOSURE. Except as required to fulfill its obligations under this Agreement, Motorola will have no obligation to provide Customer with access to its Confidential Information and/or proprietary information. Under no circumstances will Motorola be required to provide any data related to cost and pricing.

16.4 DATA AND FEEDBACK.

16.4.1 To the extent permitted by law, Customer owns all right, title and interest in System Data created

solely by it or its agents (hereafter, "Customer Data"), and grants to Motorola the right to use, host, cache, store, reproduce, copy, modify, combine, analyze, create derivatives from, communicate, transmit, publish, display, and distribute such Customer Data.

16.4.2 Motorola owns all right, title and interest in data resulting from System Data that is or has been transformed, altered, processed, aggregated, correlated or operated on (hereafter, "Derivative Data").

16.4.3 Any Feedback given by Customer is and will be entirely voluntary and, even if designated as confidential, will not create any confidentiality obligation for Motorola. Motorola will be free to use, reproduce, license or otherwise distribute and exploit the Feedback without any obligation to Customer. Customer acknowledges that Motorola's receipt of the Feedback does not imply or create recognition by Motorola of either the novelty or originality of any idea. The parties further agree that all fixes, modifications and improvements made to Motorola products or services conceived of or made by Motorola that are based, either in whole or in part, on the Feedback are the exclusive property of Motorola and all right, title and interest in and to such fixes, modifications or improvements to the Motorola product or service will vest solely in Motorola.

Section 17 GENERAL

17.1. TAXES. The Contract Price does not include any excise, sales, lease, use, property, or other taxes, assessments or duties, all of which will be paid by Customer except as exempt by law. If Motorola is required to pay any of these taxes, Motorola will send an invoice to Customer and Customer will pay to Motorola the amount of the taxes (including any interest and penalties) within thirty (30) days after the date of the invoice. Customer will be solely responsible for reporting the Equipment for personal property tax purposes, and Motorola will be solely responsible for reporting taxes on its income or net worth.

17.2. ASSIGNABILITY AND SUBCONTRACTING. Except as provided herein, neither Party may assign this Agreement or any of its rights or obligations hereunder without the prior written consent of the other Party, which consent will not be unreasonably withheld. Any attempted assignment, delegation, or transfer without the necessary consent will be void. Notwithstanding the foregoing, Motorola may assign this Agreement to any of its affiliates or its right to receive payment without the prior consent of Customer. In addition, in the event Motorola separates one or more of its businesses (each a "Separated Business"), whether by way of a sale, establishment of a joint venture, spin-off or otherwise (each a "Separation Event"), Motorola may, without the prior written consent of the other Party and at no additional cost to Motorola, assign this Agreement such that it will continue to benefit the Separated Business and its affiliates (and Motorola and its affiliates, to the extent applicable) following the Separation Event. Motorola may subcontract any of the work, but subcontracting will not relieve Motorola of its duties under this Agreement.

17.3. WAIVER. Failure or delay by either Party to exercise a right or power under this Agreement will not be a waiver of the right or power. For a waiver of a right or power to be effective, it must be in a writing signed by the waiving Party. An effective waiver of a right or power will not be construed as either a future or continuing waiver of that same right or power, or the waiver of any other right or power.

17.4. SEVERABILITY. If a court of competent jurisdiction renders any part of this Agreement invalid or unenforceable, that part will be severed and the remainder of this Agreement will continue in full force and effect.

17.5. INDEPENDENT CONTRACTORS. Each Party will perform its duties under this Agreement as an independent contractor. The Parties and their personnel will not be considered to be employees or agents of the other Party. Nothing in this Agreement will be interpreted as granting either Party the right or authority

to make commitments of any kind for the other. This Agreement will not constitute, create, or be interpreted as a joint venture, partnership or formal business organization of any kind.

17.6. HEADINGS AND SECTION REFERENCES. The section headings in this Agreement are inserted only for convenience and are not to be construed as part of this Agreement or as a limitation of the scope of the particular section to which the heading refers. This Agreement will be fairly interpreted in accordance with its terms and conditions and not for or against either Party.

17.7. NOTICES. Notices required under this Agreement to be given by one Party to the other must be in writing and either personally delivered or sent to the address provided by the other Party by certified mail, return receipt requested and postage prepaid (or by a recognized courier service, such as Federal Express, UPS, or DHL), or by facsimile with correct answerback received, and will be effective upon receipt.

17.8. COMPLIANCE WITH APPLICABLE LAWS. Each Party will comply with all applicable federal, state, and local laws, regulations and rules concerning the performance of this Agreement or use of the System. Customer will obtain and comply with all Federal Communications Commission ("FCC") licenses and authorizations required for the installation, operation and use of the System before the scheduled installation of the Equipment. Although Motorola might assist Customer in the preparation of its FCC license applications, neither Motorola nor any of its employees is an agent or representative of Customer in FCC or other matters.

17.9 FUTURE REGULATORY REQUIREMENTS. The Parties acknowledge and agree that this is an evolving technological area and therefore, laws and regulations regarding Services and use of Solution may change. Changes to existing Services or the Solution required to achieve regulatory compliance may be available for an additional fee. Any required changes may also impact the price for Services.

17.10. AUTHORITY TO EXECUTE AGREEMENT. Each Party represents that it has obtained all necessary approvals, consents and authorizations to enter into this Agreement and to perform its duties under this Agreement; the person executing this Agreement on its behalf has the authority to do so; upon execution and delivery of this Agreement by the Parties, it is a valid and binding contract, enforceable in accordance with its terms; and the execution, delivery, and performance of this Agreement does not violate any bylaw, charter, regulation, law or any other governing authority of the Party.

17.11. ADMINISTRATOR LEVEL ACCOUNT ACCESS. If applicable to the type of System purchased by Customer, Motorola will provide Customer with Administrative User Credentials. Customer agrees to only grant access to the Administrative User Credentials to those personnel with the training and experience to correctly use them. Customer is responsible for protecting Administrative User Credentials from disclosure and maintaining Credential validity by, among other things, updating passwords when required. Customer may be asked to provide valid Administrative User Credentials when in contact with Motorola System support personnel. Customer understands that changes made as the Administrative User can significantly impact the performance of the System. Customer agrees that it will be solely responsible for any negative impact on the System or its users by any such changes. System issues occurring as a result of changes made using the Administrative User Credentials may impact Motorola's ability to perform Services or other obligations under the Agreement. In such cases, a revision to the appropriate provisions of the Agreement, including the Statement of Work, may be necessary. To the extent Motorola provides assistance to correct any issues caused by or arising out of the use of or failure to maintain Administrative User Credentials, Motorola will be entitled to bill Customer and Customer will pay Motorola on a time and materials basis for resolving the issue.

17.12. SURVIVAL OF TERMS. The following provisions will survive the expiration or termination of this Agreement for any reason: Section 3.5 (Motorola Software); Section 3.6 (Non-Motorola Software); if any payment obligations exist, Sections 6.2 and 6.3 (Contract Price and Invoicing and Payment); Subsection 10.8 (Disclaimer of Implied Warranties); Section 12 (Disputes); Section 15 (Limitation of Liability); and Section 16 (Confidentiality and Proprietary Rights); and all of the General provisions in Section 17.

17.13. ENTIRE AGREEMENT. This Agreement, including all Exhibits, constitutes the entire agreement of the Parties regarding the subject matter of the Agreement and supersedes all previous agreements, proposals, and understandings, whether written or oral, relating to this subject matter. This Agreement may be executed in multiple counterparts, and shall have the same legal force and effect as if the Parties had executed it as a single document. The Parties may sign in writing, or by electronic signature, including by email. An electronic signature, or a facsimile copy or computer image, such as a PDF or tiff image, of a signature, shall be treated as and shall have the same effect as an original signature. In addition, an electronic signature, a true and correct facsimile copy or computer image of this Agreement shall be treated as and shall have the same effect as an original signed copy of this document. This Agreement may be amended or modified only by a written instrument signed by authorized representatives of both Parties. The preprinted terms and conditions found on any Customer purchase or purchase order, acknowledgment or other form will not be considered an amendment or modification of this Agreement, even if a representative of each Party signs that document.

The Parties hereby enter into this Agreement as of the Effective Date.

Motorola Solutions, Inc.

By: Frank Galvin _____

Name: _____

Title: Territory Vice President T5S _____

Date: 5/24/22 _____

Customer

By: _____

Name: _____

Title: _____

Date: _____

Exhibit A

MOTOROLA SOFTWARE LICENSE AGREEMENT

This Exhibit A Motorola Software License Agreement ("Agreement") is between Motorola Solutions, Inc., ("Motorola"), and Bi-State Development Agency ("Licensee").

For good and valuable consideration, the parties agree as follows:

Section 1 DEFINITIONS

1.1 "Designated Products" means products provided by Motorola to Licensee with which or for which the Software and Documentation is licensed for use.

1.2 "Documentation" means product and software documentation that specifies technical and performance features and capabilities, and the user, operation and training manuals for the Software (including all physical or electronic media upon which such information is provided).

1.3 "Open Source Software" means software with either freely obtainable source code, license for modification, or permission for free distribution.

1.4 "Open Source Software License" means the terms or conditions under which the Open Source Software is licensed.

1.5 "Primary Agreement" means the agreement to which this exhibit is attached.

1.6 "Security Vulnerability" means a flaw or weakness in system security procedures, design, implementation, or internal controls that could be exercised (accidentally triggered or intentionally exploited) and result in a security breach such that data is compromised, manipulated or stolen or the system damaged.

1.7 "Software" (i) means proprietary software in object code format, and adaptations, translations, de-compilations, disassemblies, emulations, or derivative works of such software; (ii) means any modifications, enhancements, new versions and new releases of the software provided by Motorola; and (iii) may contain one or more items of software owned by a third party supplier. The term "Software" does not include any third party software provided under separate license or third party software not licensable under the terms of this Agreement.

Section 2 SCOPE

Motorola and Licensee enter into this Agreement in connection with Motorola's delivery of certain proprietary software or products containing embedded or pre-loaded proprietary software, or both. This Agreement contains the terms and conditions of the license Motorola is providing to Licensee, and Licensee's use of the proprietary software and affiliated documentation.

Section 3 GRANT OF LICENSE

3.1. Subject to the provisions of this Agreement and the payment of applicable license fees, Motorola grants to Licensee a personal, limited, non-transferable (except as permitted in Section 7) and non-exclusive license under Motorola's copyrights and Confidential Information (as defined in the Primary Agreement) embodied in the Software to use the Software, in object code form, and the Documentation solely in connection with Licensee's use of the Designated Products. This Agreement does not grant any rights to source code.

3.2. If the Software licensed under this Agreement contains or is derived from Open Source Software,

the terms and conditions governing the use of such Open Source Software are in the Open Source Software Licenses of the copyright owner and not this Agreement. If there is a conflict between the terms and conditions of this Agreement and the terms and conditions of the Open Source Software Licenses governing Licensee's use of the Open Source Software, the terms and conditions of the license grant of the applicable Open Source Software Licenses will take precedence over the license grants in this Agreement. If requested by Licensee, Motorola will use commercially reasonable efforts to: (i) determine whether any Open Source Software is provided under this Agreement; and (ii) identify the Open Source Software (or specify where that license may be found).

3.3 TO THE EXTENT, IF ANY, THAT THERE IS A SEPARATE LICENSE AGREEMENT PACKAGED WITH, OR PROVIDED ELECTRONICALLY WITH, A PARTICULAR PRODUCT THAT BECOMES EFFECTIVE ON AN ACT OF ACCEPTANCE BY THE END USER, THEN THAT AGREEMENT SUPERSEDES THE SOFTWARE LICENSE AGREEMENT AS TO THE END USER OF EACH SUCH PRODUCT.

Section 4 LIMITATIONS ON USE

4.1. Licensee may use the Software only for Licensee's internal business purposes and only in accordance with the Documentation. Any other use of the Software is strictly prohibited. Without limiting the general nature of these restrictions, Licensee will not make the Software available for use by third parties on a "time sharing," "application service provider," or "service bureau" basis or for any other similar commercial rental or sharing arrangement.

4.2. Licensee will not, and will not allow or enable any third party to: (i) reverse engineer, disassemble, peel components, decompile, reprogram or otherwise reduce the Software or any portion to a human perceptible form or otherwise attempt to recreate the source code; (ii) modify, adapt, create derivative works of, or merge the Software; (iii) copy, reproduce, distribute, lend, or lease the Software or Documentation to any third party, grant any sublicense or other rights in the Software or Documentation to any third party, or take any action that would cause the Software or Documentation to be placed in the public domain; (iv) remove, or in any way alter or obscure, any copyright notice or other notice of Motorola's proprietary rights; (v) provide, copy, transmit, disclose, divulge or make the Software or Documentation available to, or permit the use of the Software by any third party or on any machine except as expressly authorized by this Agreement; or (vi) use, or permit the use of, the Software in a manner that would result in the production of a copy of the Software solely by activating a machine containing the Software. Licensee may make one copy of Software to be used solely for archival, back-up, or disaster recovery purposes; *provided* that Licensee may not operate that copy of the Software at the same time as the original Software is being operated. Licensee may make as many copies of the Documentation as it may reasonably require for the internal use of the Software.

4.3. Unless otherwise authorized by Motorola in writing, Licensee will not, and will not enable or allow any third party to: (i) install a licensed copy of the Software on more than one unit of a Designated Product; or (ii) copy onto or transfer Software installed in one unit of a Designated Product onto one other device. Licensee may temporarily transfer Software installed on a Designated Product to another device if the Designated Product is inoperable or malfunctioning, if Licensee provides written notice to Motorola of the temporary transfer and identifies the device on which the Software is transferred. Temporary transfer of the Software to another device must be discontinued when the original Designated Product is returned to operation and the Software must be removed from the other device. Licensee must provide prompt written notice to Motorola at the time temporary transfer is discontinued.

4.4 Licensee will maintain, during the term of this Agreement and for a period of two years thereafter, accurate records relating to this license grant to verify compliance with this Agreement. Motorola or an independent third party ("Auditor") may inspect Licensee's premises, books and records, upon reasonable prior notice to Licensee, during Licensee's normal business hours and subject to Licensee's facility and security regulations. Motorola is responsible for the payment of all expenses and costs of the Auditor. Any information obtained by Motorola and the Auditor will be kept in strict confidence by Motorola and the Auditor and used solely for the purpose of verifying Licensee's compliance with the terms of this Agreement.

Section 5 OWNERSHIP AND TITLE

Communication System and Services Agreement v.2.9.2021

Motorola, its licensors, and its suppliers retain all of their proprietary rights in any form in and to the Software and Documentation, including, but not limited to, all rights in patents, patent applications, inventions, copyrights, trademarks, trade secrets, trade names, and other proprietary rights in or relating to the Software and Documentation (including any corrections, bug fixes, enhancements, updates, modifications, adaptations, translations, de-compilations, disassemblies, emulations to or derivative works from the Software or Documentation, whether made by Motorola or another party, or any improvements that result from Motorola's processes or, provision of information services). No rights are granted to Licensee under this Agreement by implication, estoppel or otherwise, except for those rights which are expressly granted to Licensee in this Agreement. All intellectual property developed, originated, or prepared by Motorola in connection with providing the Software, Designated Products, Documentation or related services, remains vested exclusively in Motorola, and Licensee will not have any shared development or other intellectual property rights.

Section 6 LIMITED WARRANTY; DISCLAIMER OF WARRANTY

6.1. Unless otherwise stated in the Primary Agreement, the commencement date and the term of the Software warranty will be a period of ninety (90) days from Motorola's shipment of the Software (the "Warranty Period"). If Licensee is not in breach of any of its obligations under this Agreement, Motorola warrants that the unmodified Software, when used properly and in accordance with the Documentation and this Agreement, will be free from a reproducible defect that eliminates the functionality or successful operation of a feature critical to the primary functionality or successful operation of the Software. Whether a defect occurs will be determined by Motorola solely with reference to the Documentation. Motorola does not warrant that Licensee's use of the Software or the Designated Products will be uninterrupted, error-free, completely free of Security Vulnerabilities, or that the Software or the Designated Products will meet Licensee's particular requirements. Motorola makes no representations or warranties with respect to any third party software included in the Software. Notwithstanding, any warranty provided by a copyright owner in its standard license terms will flow through to Licensee for third party software provided by Motorola.

6.2 Motorola's sole obligation to Licensee and Licensee's exclusive remedy under this warranty is to use reasonable efforts to remedy any material Software defect covered by this warranty. These efforts will involve either replacing the media or attempting to correct significant, demonstrable program or documentation errors or Security Vulnerabilities. If Motorola cannot correct the defect within a reasonable time, then at Motorola's option, Motorola will replace the defective Software with functionally-equivalent Software, license to Licensee substitute Software which will accomplish the same objective, or terminate the license and refund the Licensee's paid license fee.

6.3. Warranty claims are described in the Primary Agreement.

6.4. The express warranties set forth in this Section 6 are in lieu of, and Motorola disclaims, any and all other warranties (express or implied, oral or written) with respect to the Software or Documentation, including, without limitation, any and all implied warranties of condition, title, non-infringement, merchantability, or fitness for a particular purpose or use by Licensee (whether or not Motorola knows, has reason to know, has been advised, or is otherwise aware of any such purpose or use), whether arising by law, by reason of custom or usage of trade, or by course of dealing. In addition, Motorola disclaims any warranty to any person other than Licensee with respect to the Software or Documentation.

Section 7 TRANSFERS

Licensee will not transfer the Software or Documentation to any third party without Motorola's prior written consent. Motorola's consent may be withheld at its discretion and may be conditioned upon transferee paying all applicable license fees and agreeing to be bound by this Agreement. If the Designated Products are Motorola's radio products and Licensee transfers ownership of the Motorola radio products to a third party, Licensee may assign its right to use the Software (other than CPS and Motorola's FLASHport® software) which is embedded in or furnished for use with the radio products and the related Documentation; *provided* that Licensee transfers all copies of the Software and Documentation to the transferee, and Licensee and the transferee sign a transfer form to be provided by Motorola upon request, obligating the transferee to be bound by this Agreement.

Communication System and Services Agreement v.2.9.2021

Section 8 TERM AND TERMINATION

8.1 Licensee's right to use the Software and Documentation will begin when the Primary Agreement is signed by both parties and will continue for the life of the Designated Products with which or for which the Software and Documentation have been provided by Motorola, unless Licensee breaches this Agreement, in which case this Agreement and Licensee's right to use the Software and Documentation may be terminated immediately upon notice by Motorola.

8.2 Within thirty (30) days after termination of this Agreement, Licensee must certify in writing to Motorola that all copies of the Software have been removed or deleted from the Designated Products and that all copies of the Software and Documentation have been returned to Motorola or destroyed by Licensee and are no longer in use by Licensee.

8.3 Licensee acknowledges that Motorola made a considerable investment of resources in the development, marketing, and distribution of the Software and Documentation and that Licensee's breach of this Agreement will result in irreparable harm to Motorola for which monetary damages would be inadequate. If Licensee breaches this Agreement, Motorola may terminate this Agreement and be entitled to all available remedies at law or in equity (including immediate injunctive relief and repossession of all non-embedded Software and associated Documentation unless Licensee is a Federal agency of the United States Government).

Section 9 Commercial Computer Software

9.1 *This Section 9 only applies to U.S. Government end users.* The Software, Documentation and updates are commercial items as that term is defined at 48 C.F.R. Part 2.101, consisting of "commercial computer software" and "computer software documentation" as such terms are defined in 48 C.F.R. Part 252.227-7014(a)(1) and 48 C.F.R. Part 252.227-7014(a)(5), and used in 48 C.F.R. Part 12.212 and 48 C.F.R. Part 227.7202, as applicable. Consistent with 48 C.F.R. Part 12.212, 48 C.F.R. Part 252.227-7015, 48 C.F.R. Part 227.7202-1 through 227.7202-4, 48 C.F.R. Part 52.227-19, and other relevant sections of the Code of Federal Regulations, as applicable, the Software, Documentation and Updates are distributed and licensed to U.S. Government end users: (i) only as commercial items, and (ii) with only those rights as are granted to all other end users pursuant to the terms and conditions contained herein.

9.2 If Licensee is licensing Software for end use by the United States Government or a United States Government agency, Licensee may transfer such Software license, but only if: (i) Licensee transfers all copies of such Software and Documentation to such United States Government entity or interim transferee, and (ii) Licensee has first obtained from the transferee (if applicable) and ultimate end user an enforceable end user license agreement containing restrictions substantially identical to the ones contained in this Agreement. Except as stated in the foregoing, Licensee and any transferee(s) authorized by this subsection 9.2 may not otherwise use or transfer or make available any Motorola software to any third party nor permit any party to do so.

Section 10 CONFIDENTIALITY

Licensee acknowledges that the Software and Documentation contain Motorola's valuable proprietary and Confidential Information and are Motorola's trade secrets, and that the provisions in the Primary Agreement concerning Confidential Information apply.

Section 11 LIMITATION OF LIABILITY

The Limitation of Liability provision is described in the Primary Agreement.

Section 12 NOTICES

Notices are described in the Primary Agreement.

Section 13 GENERAL

13.1. **COPYRIGHT NOTICES.** The existence of a copyright notice on the Software will not be construed as an admission or presumption of publication of the Software or public disclosure of any trade secrets associated with the Software.

13.2. **COMPLIANCE WITH LAWS.** Licensee acknowledges that the Software is subject to the laws and regulations of the United States and Licensee will comply with all applicable laws and regulations, including export laws and regulations of the United States. Licensee will not, without the prior authorization of Motorola and the appropriate governmental authority of the United States, in any form export or re-export, sell or resell, ship or reship, or divert, through direct or indirect means, any item or technical data or direct or indirect products sold or otherwise furnished to any person within any territory for which the United States Government or any of its agencies at the time of the action, requires an export license or other governmental approval. Violation of this provision is a material breach of this Agreement.

13.3 **FUTURE REGULATORY REQUIREMENTS.** The Parties acknowledge and agree that this is an evolving technological area and therefore, laws and regulations regarding Services and use of Solution may change. Changes to existing Services or the Solution required to achieve regulatory compliance may be available for an additional fee. Any required changes may also impact the price for Services.

13.4. **ASSIGNMENTS AND SUBCONTRACTING.** Motorola may assign its rights or subcontract its obligations under this Agreement, or encumber or sell its rights in any Software, without prior notice to or consent of Licensee.

13.5. **GOVERNING LAW.** This Agreement is governed by the laws of the United States to the extent that they apply and otherwise by the internal substantive laws of the State to which the Software is shipped if Licensee is a sovereign government entity, or the internal substantive laws of the State of Illinois if Licensee is not a sovereign government entity. The terms of the U.N. Convention on Contracts for the International Sale of Goods do not apply. In the event that the Uniform Computer Information Transaction Act, any version of this Act, or a substantially similar law (collectively "UCITA") becomes applicable to a party's performance under this Agreement, UCITA does not govern any aspect of this Agreement or any license granted under this Agreement, or any of the parties' rights or obligations under this Agreement. The governing law will be that in effect prior to the applicability of UCITA.

13.6. **THIRD PARTY BENEFICIARIES.** This Agreement is entered into solely for the benefit of Motorola and Licensee. No third party has the right to make any claim or assert any right under this Agreement, and no third party is deemed a beneficiary of this Agreement. Notwithstanding the foregoing, any licensor or supplier of third party software included in the Software will be a direct and intended third party beneficiary of this Agreement.

13.7. **SURVIVAL.** Sections 4, 5, 6.4, 7, 8, 9, 10, 11 and 13 survive the termination of this Agreement.

13.8. **ORDER OF PRECEDENCE.** In the event of inconsistencies between this Exhibit and the Primary Agreement, the parties agree that this Exhibit prevails, only with respect to the specific subject matter of this Exhibit, and not the Primary Agreement or any other exhibit as it applies to any other subject matter.

13.9. **SECURITY.** Motorola uses reasonable means in the design and writing of its own Software and the acquisition of third party Software to limit Security Vulnerabilities. While no software can be guaranteed to be free from Security Vulnerabilities, if a Security Vulnerability is discovered, Motorola will take the steps

set forth in Section 6 of this Agreement.

Exhibit B PAYMENT

Except for a payment that is due on the Effective Date, Customer will make payments to Motorola within thirty (30) days after the date of each invoice. Customer will make payments when due in the form of a check, cashier's check, or wire transfer drawn on a U.S. financial institution. If Customer has purchased additional Professional or Subscription services, payment will be in accordance with the applicable addenda. Payment for the System purchase will be in accordance with the following milestones.

System Purchase (excluding Subscribers, if applicable)

1. **25% of the Contract Price due upon contract execution (due upon effective date);**
2. **60% of the Contract Price due upon shipment of equipment from Staging;**
3. **10% of the Contract Price due upon installation of equipment; and**
4. **5% of the Contract Price due upon Final Acceptance.**

If Subscribers are purchased, 100% of the Subscriber Contract Price will be invoiced upon shipment (as shipped).

Motorola shall make partial shipments of equipment and will request payment upon shipment of such equipment. In addition, Motorola shall invoice for installations completed on a site-by-site basis or when professional services are completed, when applicable. The value of the equipment shipped/services performed will be determined by the value shipped/services performed as a percentage of the total milestone value. Unless otherwise specified, contract discounts are based upon all items proposed and overall system package. For invoicing purposes only, discounts will be applied proportionately to the FNE and Subscriber equipment values to total contract price. Overdue invoices will bear simple interest at the maximum allowable rate by state law.

For Lifecycle Support Plan and Subscription Based Services:

Motorola will invoice Customer annually in advance of each year of the plan.

The chart below outlines the hourly labor rates for Motorola System Integration resources to be used. The staffing requirements shall be multiplied by the appropriate rate per resource in the table below. The hourly labor rates are fully burdened. The hourly rates per resource type and level are listed in Table 1.

	Resource Types			
Levels	Project Management	System Engineering	System Technologist	Project Administration
4	\$ 290.00	\$ 300.00	\$ 280.00	\$ 200.00
3	\$ 240.00	\$ 250.00	\$ 240.00	\$ 180.00
2	\$ 220.00	\$ 220.00	\$ 220.00	\$ 170.00
1	\$ 190.00	\$ 210.00	\$ 210.00	\$ 160.00

Table 1 - Hourly Rates

These rates apply to ordinary days and times (Monday to Friday during the hours 8am to 5pm). Additional surcharges may apply to work done outside these timeframes. The minimum charge for any resource will be 4 hours. Travel expenses are not included in these rates and may be charged separately. The qualifications of each type and level of resource are defined in the tables found at

<https://www.motorolasolutions.com/content/dam/msi/secure/services/labor-rates-exhibit-160408.pdf>. All Motorola System Integration personnel assigned to this project will be classified according these levels. Project Administrative roles are varied and their specific duties and qualifications will be determined by the complexity and requirements of each project.

EXHIBIT D

System Acceptance Certificate

Customer Name: _____

Project Name: _____

This System Acceptance Certificate memorializes the occurrence of System Acceptance. Motorola and Customer acknowledge that:

1. The Acceptance Tests set forth in the Acceptance Test Plan have been successfully completed.
2. The System is accepted.

Customer Representative:

Motorola Representative:

Signature: _____

Signature: _____

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

FINAL PROJECT ACCEPTANCE:

Motorola has provided and Customer has received all deliverables, and Motorola has performed all other work required for Final Project Acceptance.

Customer Representative:

Motorola Representative:

Signature: _____

Signature: _____

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

MAINTENANCE, SUPPORT AND LIFECYCLE MANAGEMENT ADDENDUM

The additional ScoutCare maintenance referenced in the pricing section of this proposal will be added as an amendment to the existing Motorola Solutions Service Contract USC00047013 starting on October 1, 2023. Any additional contract terms will be added to the existing contract at the time.

**Bi-State Development Agency
Operations Committee
Open Session Agenda Item
January 27, 2023**

From: Charles Stewart, Executive Vice President / Chief Operating Officer - Metro Transit
Subject: **Contract Modification: 20-SS-126951-CB/DR Public Address/Customer Information System (PA/CIS) Upgrades – Security Announcements Proposal**
Disposition: Approval
Presentation: Thomas Curran, Executive Vice President – Administration
Darren Curry, Assistant Executive Director Transit Assets, VMD

Objective:

To present to the Operations Committee, for discussion and referral to the Board of Commissioners for approval, a request to authorize the President & CEO to execute a contract modification with Wabtec, to continue providing design services to add additional functionality for the Real Time Camera Center, Public Safety Dispatch, and MetroLink Operation Control Center associated with Contract 20-RFP-126951-CB/DR Public Address/Customer Information System (PA/CIS) Upgrades

Background:

Metro's current Advanced Information Management (AIM) SCADA system was developed by Aeronautical Radio, Inc. (ARINC). Wabtec entered into an agreement with ARINC to acquire its Surface Transportation business in June 2022, during the final design phase of the MetroLink Public Address / Customer Information System (PA/CIS) upgrade project. Metro desires to add functionality, which would allow Security the capability to make live announcements to MetroLink platforms from the Real Time Camera Center, located at our Central Facility. Due to the additional requirements of the Real Time Camera Center (RTCC), provision of additional hardware and software elements is necessary. The confidential details of AIM PA/CIS are the intellectual property of Wabtec.

Analysis:

Regulations in FTA Circular 4220.1F allow for the award of a sole source contract if certain conditions are present, including: 1) unique or innovative concepts involving confidential details; 2) patents or restricted data rights; 3) substantial duplication of costs that are not expected to be recovered through competition; and 4) unacceptable delay if another contractor would be hired to produce highly specialized equipment.

On March 20, 2020, Bi-State Development obtained Board approval to enter into a sole source contract with ARINC, in the not-to-exceed amount of \$4,549,415.00. Wabtec's offering fee of \$141,738 to provide additional functionality for security personnel to make announcements at stations equates to a 3.12% increase and is considered fair and reasonable.

Funding Source:

This Project is funded through Federal (Sections 5307 & 5337) and local funding sources.

Committee Action Requested:

Management recommends that the Operations Committee accept, and forward to the Board of Commissioners for approval, this request to authorize the President & CEO to execute a contract modification to Bi-State's existing contract with Wabtec for improved functionality for the Public Address/Customer Information System (PA/CIS) for MetroLink, in the not-to-exceed amount of \$141,738, increasing the total not-to-exceed sole source contract amount to \$4,691,153 and extending the contract period of performance from June 30, 2023 to May 5, 2024.

Board Policy 50, Purchasing – Section 50.010 - The Board of Commissioners shall approve Non-Competitive Procurements which exceed \$100,000 and Procurements which exceed the amounts budgeted or otherwise approved by the Board of Commissioners for such project, function or service and G, Contract Modifications – contract extensions in excess of 180 days.

**Bi-State Development Agency
Operations Committee
Open Session Agenda Item
January 27, 2023**

From: Thomas Curran, Executive Vice President of Administration
Subject: **Contract Award - Electronic Fare Collection System**
Disposition: Approval
Presentation: Thomas Curran, Executive Vice President of Administration

Objective:

To present to the Operations Committee for discussion, and referral to the Board of Commissioners for approval, a request for authorization to enter into a contract with Masabi for an electronic fare collection system.

Background:

Bi-State Development issued a request for proposals for an electronic fare collecting system on January 14, 2021. The request sought vendor proposals for an account-based electronic fare collection system through a cloud-hosted platform that would work with smart cards, paper barcodes and contactless credit cards. The RFP also asked for a customer-facing web portal, integration with mobile ticketing, and bus/light rail validators.

Ten proposals were received and forwarded to an evaluation committee for scoring in April 2021, and four finalist firms were invited to give presentations. In May 2021, the Operations Committee was presented with a request to pre-approve the highest ranking firm, even though a final recommendation had not yet been made by staff. Commissioners had questions regarding the proposed e-faring system with regard to cost and how the new collection proposal would fit into the total system. As a result, a motion to table the recommendation from staff was approved, to allow for further discussion.

In order to obtain outside expertise and an objective review of our efforts to date, Bi-State issued solicitation *22-RFP342190-TJL- Fare Collection Program Consultant* on June 25, 2022, and Consult Hyperion was selected to assist in developing a new fare collection system for Bi-State. The modernized system will tie into the Secure Platform Plan (SPP), which is dependent upon an updated fare system to open the planned gates at all MetroLink stations.

Consult Hyperion completed its analysis of the 2021 RFP process late last year, and an informational briefing paper was presented to the Board of Commissioners on November 18, 2022. Consult Hyperion recommended that Bi-State complete the electronic faring RFP process that it began in 2021, by awarding Masabi with a contract to provide an electronic fare collection system, including back end/back office support and validators for bus and light rail. Contracts for ticket vending machines and fareboxes for buses will be competitively awarded at a future date, once the electronic fare collection system is in place.

Analysis:

In order to move forward in a timely manner with a modern fare collection system that will allow the SPP program to be a success, Consult Hyperion has affirmed that an Account-based system offered through a Software-as-a-Service (SaaS) model is the best solution that will fulfill Bi-State's needs.

Account-based solution: Today's standard fare collection system is account based, in which a central back end software system controls the entire process. The old fare collection model of a card-based system is no longer useful. In that model, the validators contained all of the information for the system.

Validators had to hold all of the fare rules, and then read/write data back to the card. The card held the value for the rider.

With improved network capabilities, account-based systems are the new standard. The central back end software system contains all of the fare rules and keeps a record of all account values. The fare media is now just a token or credential that can take many different shapes, such as a smart card, mobile phone, physical ticket or smart watch.

Under the ***Software-as-a-Service model***, the vendor only supplies a limited portion of the fare collection system, and the transit agency can select its preferred supplier for other parts of the system like ticket vending machines (TVMs) and fareboxes. The SaaS provider must simply offer the TVM and farebox suppliers its application programming interfaces (APIs), and any number of vendors can interact with the system. The agency has the flexibility to pick the best-in-class supplier that offers the products that fit their needs.

Consult Hyperion's review of last year's recommended vendor, Masabi, and the three other finalists from whom best and final offers were received, showed that Masabi's proposal met 94.9% of Bi-State's requirements. The exceptions in the proposal have been deemed reasonable, and their phased approach was described as "well thought out". Masabi's central back end, the *Hub*, is a mature platform with financial reporting, customer reporting and asset monitoring, all in one tool. Masabi's responses to the Software-as-a-Service questionnaire provide assurances that their system is well supported and meets Payment Card Industry (PCI) compliance.

Consult Hyperion will continue working on the next tasks of the Fare Collection Program scope of work, including a Request for Information (RFI) for new fare equipment, a Request for Proposals (RFP) for TVMs and fareboxes, technical support for fare equipment replacement and integration, revenue process security, and project management. The Fare Collection Program is scheduled to conclude at the same time as the Safe Platform Plan.

Funding:

The cost of the electronic faring system is projected to be \$4,000,000.00, which includes \$2,169,125.79 in capital expenses and three years of support, maintenance and transaction fees. Funding for this project will be provided through Section 5307 formula funds, Proposition M and the St. Clair County Transit District.

Committee Action Requested:

Management recommends that the Operations Committee accept, and forward to the Board of Commissioners for final approval, an authorization for the President & CEO to enter into a three-year contract with Masabi for the provision of an electronic fare collection system, in the not-to-exceed amount of \$4,000,000.00.

Attachments:

- Masabi Proposal Fact Sheet
- Masabi Operational Costs and Fees

MASABI PROPOSAL FACT SHEET

21-RFP-181974 CG – Electronic Fare Collecting System

Bus Validators – 410 On-Board Bus Validators Plus 50 Spares (460 Total)

Light Rail Platform Validators – 178 Platform Validators Plus 5 Spares (183 Total)

On-Board Bus Validator



Justride Platform Validator

PRICING BREAKDOWN	Capital Expenses	Year 1	Year 2	Year 3
Project Management Structure (Program Manager, Lead Engineer, Project Manager, Product Manager, Developer, Quality Analyst, Support Engineer, Brand Manager, Training Consultant, Discount for Existing Mobile Deployment)	\$162,300.00			
Integrations & Configuration (including GTFS-RT AVL Integration)	\$25,400.00			
Electronic Validation (410 JRV's and 50 spares for buses; 178 PJRV's and 5 spares)	\$1,483,988.00			
Validation Hardware Installation	\$416,802.00			
Riders Fare Media (smart card 200 test and 10,000 initial stock)	\$43,280.00			
<i>Rider Adoption Assumption</i>		25%	50%	60%
Transaction Fees		\$279,901.36	\$559,802.71	\$671,762.86
Maintenance and Support		\$93,504.00	\$93,504.00	\$93,504.00
Subtotals	\$2,131,770.00			
Cost Proposal Total				\$3,923,748.93
Optional Items				
cEMV Deployment	\$37,355.79	\$20,580.00	\$41,160.00	\$49,392.00
GTFS-RT - General Transit Feed Specification <u>Realtime</u> is a data specification that allows public transit agencies to publish their transit data in a format that can be consumed by a wide variety of software applications				
JRV - Masabi's Justride Validator				
PJRV - Masabi's Platform Justride Validator				
AVL - Automatic Vehicle Location systems report vehicle information such as location, speed, and stops.				
cEMV - Contactless Europay, Mastercard, Visa payment system				

MASABI OPERATIONAL COSTS - MAINTENANCE/SUPPORT AND TRANSACTION FEES

Operational Costs					
Fixed Fees	Fees	Number of Devices	Year 1	Year 2	Year 3
Justride Inspect Embedded (per validation device and year)	\$108.00	588.00	\$63,504.00	\$63,504.00	\$63,504.00
	Fees	Months	Year 1	Year 2	Year 3
Transit App Support Fee (monthly)	\$2,500.00	12	\$30,000.00	\$30,000.00	\$30,000.00
Transaction Fees					
Annual Fare Revenue					
2019 Fare Revenue (NTD Data)	\$38,395,238				
90% Recovery from 2019	\$34,555,714				
			Year 1	Year 2	Year 3
Annual Estimated Adoption			25%	50%	60%
Effective Revenue based on Adoption			\$8,638,929	\$17,277,857	\$20,733,429
Revenue Share Calculation					
		Revenue Share %	Year 1	Year 2	Year 3
Vendor Revenue Share (Product Purchase) (30% of fares)		1.99%	\$51,574	\$103,149	\$123,779
Vendor Revenue Share (Account Load to Balance) (70% of fares)		0.50%	\$30,236	\$60,472	\$72,567
Vendor Revenue Share (On Use) (70% of fares)		1.99%	\$120,340	\$240,681	\$288,817
			\$202,151	\$404,302	\$485,162
Payment Processing Costs					
Number of Transactions		Cost per Transaction	2,591,678.57	5,183,357.13	6,220,028.56
Cybersource Gateway Fee (per transaction)		\$0.03	\$77,750.36	\$155,500.71	\$186,600.86
Note: Cybersource connecting to Elavon, so Bi-State Development Agency would need to pay for the Gateway fee to Cybersource, and the rest of the fees would be payable to Elavon under their existing contract.					
Estimated Operational Costs			Year 1	Year 2	Year 3
			\$373,405.29	\$653,306.57	\$765,267.08

Metro Service Performance Summary | July – December FY23

Bi-State Development Board of Commissioners Operations Committee Meeting: January 27 , 2023

SYSTEM PERFORMANCE

Metro Transit Operations: At-A-Glance



Service Performance Measures		MetroBus Fixed Route + Special Services	FY23 vs. FY22	MetroLink	FY 23 vs. FY22	Call-A-Ride	FY23 vs. FY22
System Ridership	YTD	6,348,100	5.2%	3,446,300	7.0%	161,100	(-8.6%)
	Q2	3,074,400	3.7%	1,680,500	6.9%	72,600	(-14%)
Missouri	YTD	5,466,000	3.3%	2,715,100	7.6%	161,100	(-8.6%)
	Q2	2,637,200	1.7%	1,337,400	8.5%	72,600	(-14%)
Illinois	YTD	882,100	19%	731,200	4.6%		
	Q2	437,200	16%	343,100	1.3%		
Revenue Miles	YTD	6,424,300	(-12%)	1,194,200	(-17%)	1,741,200	(-6.0%)
	Q2	3,063,500	(-13%)	593,100	(-22%)	796,000	(-11%)
Revenue Hours	YTD	451,000	(-14%)	53,300	(-15%)	101,100	(-3.4%)
	Q2	220,500	(-13%)	26,800	(-14%)	46,400	(-9.4%)
On-Time Performance	YTD	86.4%	(-1.3%)	92.4%	(-6.3%)	92.4%	(-0.5%)
	Q2	86.8%	0.4%	94.3%	(-4.0%)	92.3%	(-0.7%)
Financials		YTD F23 Actual		YTD FY23 Budget		Budget Adherence	
Expenses (Transit)		\$133,333,100		\$153,119,800		(-\$19,786,700)/(-13%)	
Passenger Revenue		\$10,453,900		\$9,685,300		\$768,700/7.9%	
Farebox Recovery Ratio		7.8%		6.3%		24%	
Fixed Route MetroBus + MetroLink 12-Month Rolling Average Fare		\$1.07	6.8%	Call-A-Ride 12-Month Rolling Average Fare		\$1.76	107%

Metro Service Performance Summary

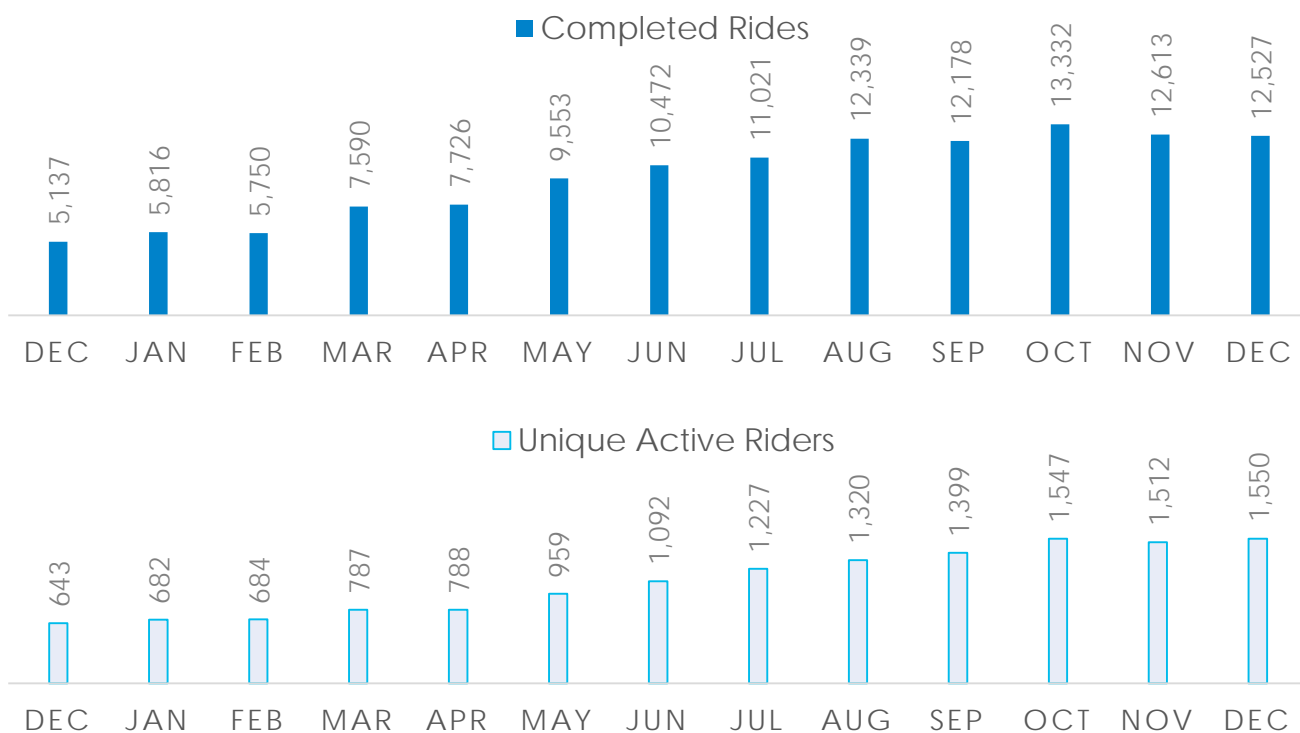
Paratransit and On-Demand Via Metro Performance Trends



Call-A-Ride Passenger Trip Requests, December, 2022

Passenger Trip Requests	# of Trips	Percent of Trip Requests
Scheduled and Made	22,160	48%
Cancelled by Passenger	6,406	14%
No-Shows	1,178	2.5%
Missed Trips	124	0.3%
Van Unavailable – Capacity Denial – ADA Riders	15,811	34%
Van Unavailable – Capacity Denial – NON ADA Riders	72	0.2%
Van Available – Adversarial Denial – All Riders	418	0.9%
Eligibility, Beyond Hours or Boundaries	40	0.1%
Total Trip Requests	46,209	100%

Via Metro STL, Last 12 Months



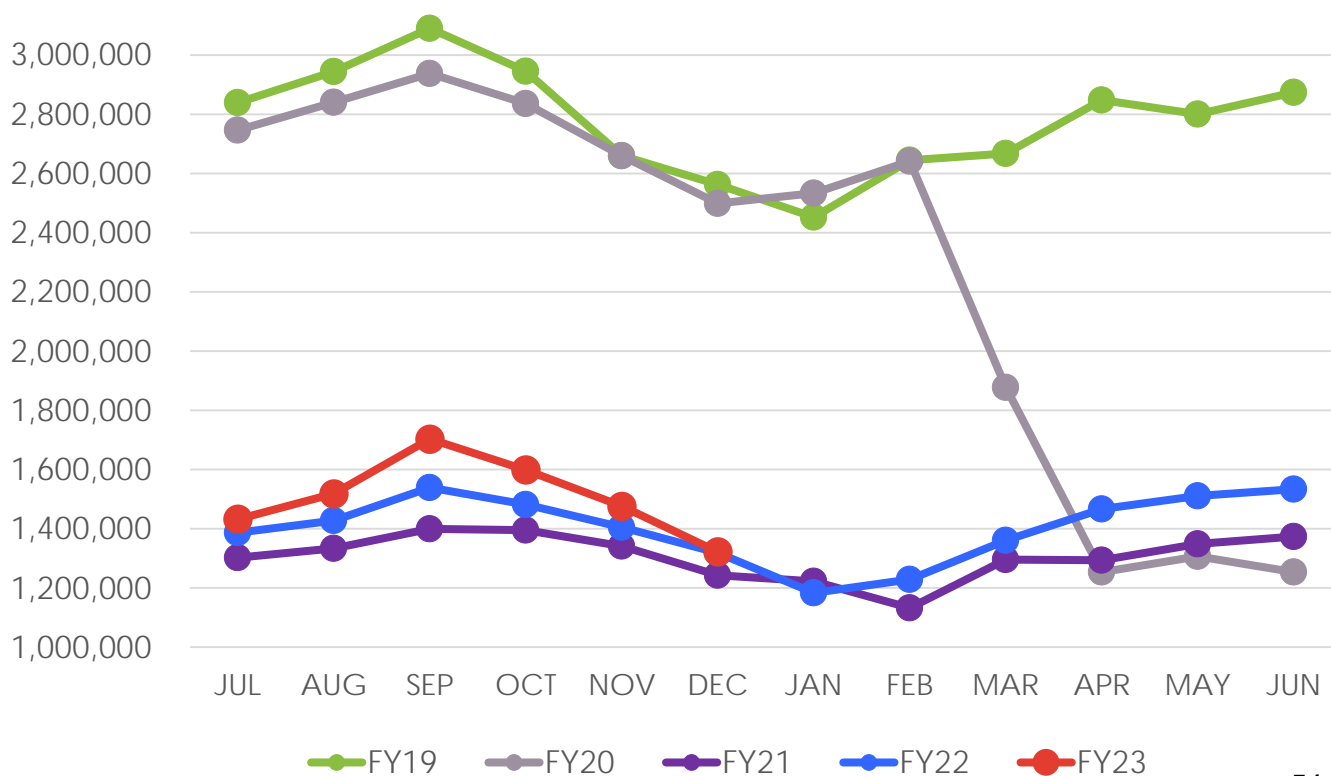
Metro Service Performance Summary

Overall Performance Trends



- As Metro closes the 2nd quarter, Metro still enjoys astounding year-over-year gains, especially in light of regional challenges. The midsummer flood damage continues to significantly impact MetroLink (ML) operations. The November 28, 2022 service change restored service to the Blue Line While riders no longer require a transfer at Forest Park Station to access the Cross County alignment. Riders that want to transfer between the Red and Blue line branches still incur a 13-minute transfer penalty. In addition, a once-in-a-generation blizzard hit the region at the end of December. Despite these hardships, ML ridership increased by an impressive (+8%) over December 2021. Note that Q4 FY22 saw gains year-over-year gains upwards of (+20% to nearly +30%). Nevertheless, even with these gains current ML ridership still lags by (-46%) compared to Q2 FY19.
- Gains in ridership on ML are particularly surprising given the Cardinals season ended at the start of the quarter. Instead, we attribute these impressive gains to an unusually warm November and early December, an uptick in air travel, big-draw headliners like the Smashing Pumpkins & Carrie Underwood, the first match of the St. Louis City Soccer Club, the return of the Festival of Lights to Kiener Plaza, renewed interest for riding ML to Blues Hockey games (as evidenced by extra service dispatched by ML Operations on game days), and a week-long high school journalism conference that helped contribute to significant gains at Convention Center station.
- November of Q2 saw some of the most egregious drops in MetroBus reliability since the start of the pandemic. System-wide, the Trouble Log reports MetroBus missed (6.6%) of all trips. Data pulled from the Automatic Vehicle Location (AVL) systems typically demonstrate the actual number of missed trips is far higher, likely double the count pulled from the Trouble Log.
- As noted in previous Operations reports, the bulk of the missed MetroBus service is on key routes that comprise the core of the MetroBus service network. In November, the Trouble Log reports the #70 Grand missed (~17%) of service. The #95 Kingshighway missed (~15%) of scheduled trips. The #11 Chippewa stands at (~13%). At the DeBaliviere garage, the Trouble Log reports the #61 Chambers and the #74 Florissant missed between (~8% to ~10%). These routes are critical to the overall Metro Transit System. These routes serve key regional neighborhoods protected by the Federal Transit Association's (FTA) Title VI regulations associated with the Civil Rights Act.
- The November 28, 2022 service change reduced service by a large margin. The reduction has improved service reliability through December & January; however, the goal of zero trips missed is not yet met. The problem is exacerbated by continued challenges in notifying riders of canceled trips in advance of the scheduled service. Service reliability is paramount for building trust and operating safe, robust, and effective public infrastructure.

STANDARDIZED FIXED-ROUTE RIDERSHIP (TOTAL SYSTEM)



PERFORMANCE

Metro Transit Workforce At-A-Glance

Sign-on and Retention Bonuses

- 579 new hires since sign-on bonus program began in 2021.
- 210 sign-on bonuses paid to date.
- 53 referral bonus payments made.

Recruiting & Training Capacity

- 2 classes per month scheduled for Call-A-Ride.
- 1 class every 8 weeks scheduled for MetroBus.
- MetroLink class scheduled for January 2023.

Status of Operations

MetroBus	2,536 missed trips in December, with 2,256 due to workforce shortage. This is 2.5% of the total trips.
MetroLink	Two missed trips in December.
Call-A-Ride	16,341 denied boardings of the 46,209 trips requested in December. This is 35.36% of the total trips.
On Monday, November 28, 2022, MetroBus implemented a quarterly service change that included in a 7% reduction in Missouri MetroBus service and the reassignment of nine routes from the Brentwood MetroBus facility to the DeBaliviere MetroBus facility. As a result of these actions, the total trips missed due to workforce shortage have been reduced from 6.1% to 2.5%.	

Recruitment Progress

- Our Month event will be quarterly starting in January 28th. We will be adding to the list of positions for these events to include TSMs, Reservation Clerks, Dispatchers, Mechanics, and Arch positions. BSD is participating in other job fairs and hiring events in the community. We have eight events scheduled through March currently.
- Pre-employment assessment and Realistic Job Preview (RJP) RFP was issued on January 9th. The RFP is in progress.
- Researching community venues where we could potentially maintain a regular presence (weekly or bi-weekly) to interact with public and share employment opportunities.
- Early stages of partnership with MO Public Transportation Association in development of apprenticeship programs.

Recruiting & Training Pipeline (November)

	Applications Received	Candidates in Process	Candidates Scheduled for Training	Trainees in Process
MetroBus Operators	63	16	10	0
Call-A-Ride Operators	54	7	9	0
1A Mechanics	4	2	0	4
Electro-Mechanics	5	1 interview scheduled	3	0
Electricians	2	3	0	0

Staffing Levels

	MetroBus Operators	MetroLink Operators	Call-A-Ride Operators	General Maintenance 1A Mechanics	Vehicle 1A Mechanics	MetroLink ElectroMechanics	Electricians
Budgeted Positions	789	102	201	46	224	42	61
Active Employees	585	84	122	38	196	34	47
Percent Shortage	25.86%	17.64%	39.30%	17.39%	12.50%	19.05%	22.95%