



DU PAGE COUNTY

421 N. COUNTY FARM ROAD
WHEATON, IL 60187
www.dupagecounty.gov

ETSB - Policy Advisory Committee Final Summary

Monday, January 6, 2025

8:15 AM

Room 3500A

Join Zoom Meeting

<https://us02web.zoom.us/j/84580717841?pwd=0cTjOCab6Iqpij8Dw2xD6bnDZG0t8E.1>

Meeting ID: 845 8071 7841

Passcode: 796666

1. CALL TO ORDER

8:15 AM meeting was called to order by Chair Selvik at 8:15 AM.

2. ROLL CALL

Attendees:

Linda Zerwin, DuPage Emergency Telephone System Board, non-voting Member

Gregg Taormina, DuPage Emergency Telephone System Board

Eve Kraus, DuPage Emergency Telephone Board

Lou Hayes, Jr, Hinsdale PD

Erik Maplethorpe, DU-COMM

John Nebl, OHSEM

Jan Barbeau, State's Attorney's Office (Remote)

Matt Beyer, Bloomingdale Fire (Remote)

Scott Bukovic, Westmont PD (Remote)

Jim Connolly, Village of Addison (Remote)

Tom Gallahue, ILEAS (Remote)

Alison Murphy, DMMC (Remote)

Bob Murr, COD (Remote)

Jason Norton, Darien PD (Remote)

PJ Youker, Wheaton PD (Remote)

Lisle-Woodridge Fire (Remote)

On roll call, Members Selvik, Benjamin, Clark, Fleury, and Jansen were present, which constituted a quorum. Member Burmeister was absent.

PRESENT	Selvik, Benjamin, Clark, Fleury, and Jansen
ABSENT	Burmeister

3. PUBLIC COMMENT

There was no public comment.

4. CHAIRMAN'S REMARKS - CHAIR SELVIK

Chair Selvik welcomed Member Jansen to his first meeting.

5. MEMBERS' REMARKS

There were no Members' remarks.

6. CONSENT ITEMS

7. COMMITTEE APPROVAL REQUIRED

7.A.1. [25-0143](#)

DEDIR System November Maintainer Report

Attachments: [November Motorola System Manager Report.pdf](#)

RESULT:	ACCEPTED AND PLACED ON FILE
MOVER:	Chris Clark
SECONDER:	Tyler Benjamin

7.B.1. [25-0144](#)

DEDIR System December Maintainer Report

Attachments: [December Motorola System Manager Report.pdf](#)

RESULT:	ACCEPTED AND PLACED ON FILE
MOVER:	Tyler Benjamin
SECONDER:	Chris Clark

7.C.1. [25-0119](#)

ETSB PAC Minutes - Regular Meeting - Monday, November 4, 2024

Attachments: [2024-11-04 PAC Minutes Summary.pdf](#)

RESULT:	ETSB RECEIVED AND PLACED ON FILE
MOVER:	Chris Clark
SECONDER:	Craig Jansen

8. PARENT COMMITTEE APPROVAL REQUIRED

8.A.1. [ETS-R-0001-25](#)

Resolution to amend and approve Policy 911-005.11: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIR System) WAVE. (PAC Recommendation to approve as amended: 5 Ayes, 0 Nays, 1 Absent)

Chair Selvik asked the Members if they had a chance to review the changes that was emailed. Ms. Zerwin said that typically there would be a motion to discuss the policy changes at the first meeting and then tabled to a date certain to allow for discussion at the

respective committees/focus groups and then brought forward for recommendation of approval to the ETS Board. She said there is no intent to approve today; that it is not on the ETSB agenda for Wednesday's meeting. Ms. Zerwin said that with the Ordinance changes to align with State statutes, the policies will be reviewed for compliance. Ms. Kraus brought the redline version of the policy on screen as Ms. Zerwin reviewed the changes that were made to the policy and the STARCOM application forms.

Discussion ensued regarding the capacity of the current WAVE system versus the upcoming WAVE system and the authority of the PAC, versus Motorola, to set parameters regarding capacity, the ability of individual users to make changes within their agency profile. This in turn provided agencies with the ability to change their radio alias which is concerning as those changes must be made to align within the radio system and are made through a helpdesk ticket assigned to the radio system manager. Member Clark questioned whether DuPage has the authority to restrict DEDIR System access to agencies within the state. Ms. Zerwin said the assumption would be that if DuPage ETSB has an agreement with an agency outside of the DEDIR System for its talkgroups, then those permissions would extend to WAVE. Member Fleury said the WAVE app mirrors the radios, that any requested talkgroup through WAVE would also be in the radios. Chair Selvik said having changes to the WAVE application come through as a helpdesk ticket may eliminate users obtaining access to talkgroups in WAVE beyond what it is their radio template. Member Fleury said the application is specific as to what can be accessed, that you must have the talkgroup ID. The outstanding questions for discussion with Motorola were the restriction of talkgroups in WAVE, restricting of WAVE versus talkgroups for outside agencies, and does encryption extend to the WAVE app. The consensus was to have a Motorola representative talk to the PAC about their questions.

Member Fleury made a motion to table this item to the next meeting on February 3, seconded by Member Benjamin. On voice vote, all Members voted "Aye", motion carried.

Attachments: [911-005.11 Access to the DEDIRS WAVE 2.12.25 draft.pdf](#)
[911-005.11 Access to the DEDIRS WAVE Application Attachment A 2.12.25 draft.pdf](#)
[911-005.11 Access to the DEDIRS WAVE Attachment B 2.12.25 draft.pdf](#)
[911-005.11 Access to the DEDIRS WAVE Attachment C 2.12.25 draft.pdf](#)
[911-005.11 Access to the DEDIRS WAVE Attachment D 2.12.25 draft.pdf](#)
[911-005.11 Access to the DEDIRS WAVE Attachment E 2.12.25 draft.pdf](#)
[911-005.11 Access to the DEDIRS WAVE Attachment F 2.12.25 draft.pdf](#)
[911-005.11 Access to the DEDIRS WAVE Attachment G 2.12.25 draft.pdf](#)

RESULT:	TABLED
MOVER:	Colin Fleury
SECONDER:	Tyler Benjamin

9. DEDIR SYSTEM

9.A. Police

9.A.1. Encryption Update

Ms. Zerwin said there is a long list of outside agencies with access to the DEDIR System and the question of which agencies have Advanced Encryption Standard (AES) will be answered by Motorola so the number of keys can be determined for the programming of the fire radios. Ms. Zerwin said the encryption plan proposal that had been brought forward to the ETS Board had been approved and that staff were working with Motorola on parts of that plan until input from the focus groups is needed. Ms. Zerwin asked to continue her update with Agenda Item 9.B. Fire before the Real Time Crime Center discussion.

9.A.2. Real Time Crime Center Requests

Chair Selvik said requests have been made from the Hinsdale and Schaumburg for Command Central access to officers’ GPS location for their Real Time Crime Center (RTCC). Chair Selvik said he invited Sergeant Lou Hayes from Hinsdale PD to discuss the request. Chair Selvik said it sounds like a fantastic idea but there are questions regarding personnel viewing other agencies’ officers’ locations and turned the discussion of the saturation patrols over to Sgt. Hayes. Sgt. Hayes said he has been involved in the creation of RTCCs in DuPage County and he thinks the term Crime Center is not appropriate as they have done a lot more work in support of the fire department responses and that they are more like Emergency Operations Centers. Sgt. Hayes described the work these teams are doing and agencies they are supporting on a nightly basis and how they learned of Command Central’s mapping leading to the request to share mapping and create a one stop shop to map out locations of responders in the field. Chair Selvik asked for any questions. Discussion ensued around how responders could maintain communication without sharing location information, such as investigation teams, the ability to use advanced technology for the safety of officers versus privacy concerns, the absence of security features of the system such a multi-factor authentication and whitelisting, and concerns that anyone with a login and password can access the system, including staff made up of non-sworn personnel from an offsite location who could then access the home address of officers and may use that access inappropriately. Sgt. Hayes offered Hinsdale as a pilot for the program to figure out how to create radio groups or deselection of specific radios. Chair Selvik asked if Motorola could provide a tutorial of the service to which the other Members were in accord. Sgt. Hayes also offered to show the Members how the centers were operating. Chair Selvik thanked Sgt. Hayes for the information and discussion.

9.B. Fire

Ms. Zerwin said that on Wednesday’s upcoming ETS Board agenda, there is a change order for the exchange of the standard Remote Speaker Microphones (RSMs) for the channel select RSM option. She said the intent had been to execute one change order but with the holdup of the mobile radios, the RSMs would be ordered first. It is not a one-to-one exchange as some of the standard RSMs would be kept in-house in a cache because of the delays within the supply chain.

Ms. Zerwin said the hope is for the channel selector RSMs to come in in time for radio programming and deployment of the fire portables.

Ms. Zerwin reminded the Members that input on the mobile radios is still needed from the fire agencies. She said a list of the agencies who had not submitted their comments would be provided to Fire Focus for follow-up. Ms. Zerwin said representatives from the Motorola product groups wants to meet with Fire Focus to discuss the APX8500s if there is a next meeting being scheduled. Ms. Zerwin also said that the Fire Focus members have been invited to the ETS Board meeting for recognition for their work with the National Fire Protection Association (NFPA) Committee.

Chair Selvik asked if there was a timeline for the fire portables. Ms. Zerwin said that is part of knowing which agencies have AES for programming the templates. Member Clark said it sounds like Motorola is working to facilitate the fire rollout potentially before the entire encryption process is finished. Ms. Zerwin said yes, to get the key slots into the radios, not that encryption is not important, but it is not as important to fire, if over the air encryption can be completed later. Member Clark said the goal is whatever it takes to get over the air updated.

The discussion moved onto Agenda Item 9.A.2. Real Time Crime Center Requests.

10. OLD BUSINESS

Ms. Zerwin said she does not yet know which of the focus group meetings would come under the Open Meetings Act and that she is working out the details of formalizing the necessary meetings with the State's Attorney's Office (SAO). Member Jansen asked if the SAO had provided direction regarding the APX8500s. Ms. Zerwin said that was next on the list, that the radio opinion of cost came first.

11. NEW BUSINESS

There was no new business.

12. ADJOURNMENT

12.A. Next Meeting: Monday, February 3 at 8:15am in Room 3-500A

Member Benjamin made a motion to adjourn the meeting at 9:05am, seconded by Member Fleury. On voice vote, motion carried.

Respectfully submitted,

Eve Kraus



ETSB Other Action Item

421 N. COUNTY FARM
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File #: 25-0143

Agenda Date: 1/6/2025

Agenda #: 7.A.1.



Solving for safer. Communities, schools, hospitals, businesses everywhere.

TO: Linda Zerwin, ETSB Executive Director
FROM: Andy Saucedo, Motorola System Manager
DATE: December 2, 2024
SUBJECT: STARCOM21 DEDIRS Monthly Report

Projects:

DEDIR System Radio Replacement

- APXNext Police: ADP to AES encryption plan pending. Motorola Solutions has provided the proposal for the cutover plan.
- APX 4000: A firmware update was released and a schedule was developed in Monday.com to for agencies to update their equipment. Emergency activation configuration change has been applied to 15 agencies/73 radios have been programmed. There are 5 agencies/22 radios that remain to be programmed. (Oak Brook/1, Itasca/1, Elmhurst/12, Lombard/7, Wheaton/1). At the time of this report 23 out of 32 agencies have had the firmware updated to the latest version.
- APX8500: Alternate options to the APX8500 are being considered. APX6500 mobiles have been received and have been staged for demo to Fire Focus. Additional APX6500 mobiles have been configured and provided to Addison Fire for install and testing.
- APXNext XN Fire: Fire radio configuration templates need IGA finalization with outside agency. Testing of the XN Demo radios was completed the week of June 17, 2024. AES encryption plan is pending. Motorola Solutions has provided the proposal for the cutover plan.

Programming – Projects

Code plug updates:

- Glen Ellyn Police Department requested to change Zone 1 GEP PD Channel 4 from FD NORTH to FD EAST. Configuration was modified and radios were updated.

Codeplug Creation:

There were none last month.

Consolidations:

There were none last month.

Radio Alignment:

There were none last month.

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Service Tickets

Category	Year to Date		Past Month					
			Totals		Categories of Tickets			
	Opened	Closed	Total	Closed	Consumable replaced	Alias or Configuration	Sent to Depot	Other
APX 7000XE	76	56	2	0	1			1
APX Next (police)	133	100	14	8	2	6	3	3
APX NextXN (fire)	1	0	0	0				
APX 8500 (mobiles)	30	28	1	0			1	
APX4000	9	4	1	0			1	
Total	249	188	18	8	3	6	5	4

STARCOM21 Scheduled Maintenance:

System Patches:

- The Starcom21 team and Motorola RSUS team applied security update patches to the Starcom21 system core in all Zones. The Patching efforts were done by the RSUS team on 11/13 and 11/14. These patches caused an impact to the system in all Zones. would have caused RF Site to enter to site trunking and Dispatch Sites to get Red X's on resources.

Thursday, 11/14/24

8:45 am- Site Trunking Event (~5 Minute Event)

Red X's on Consoles for 5 Minutes as well

2:45 pm - Site Trunking Event (~5 Minute Event)

Red X's on Consoles for 5 Minutes as well

- IL_STARCOM Monthly Application of Windows Motopatch 2024.10 – Patching 11/15/24 Monthly MOTOPATCH for Windows process was performed on applicable clients in your ASTRO System.

Command Central Patches:

[Scheduled Maintenance] Command Central Products (United States)

Start: 18/Nov/2024 @ 12:00 AM CST (UTC-5)

End: 18/Nov/2024 @ 7:00 AM CST (UTC-5)

[Scheduled Maintenance] Command Central Products (United States)

Start: 19/Nov/2024 @ 12:00 AM CST (UTC-5)

End: 19/Nov/2024 @ 7:00 AM CST (UTC-5)

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SmartConnect Patches:

[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 18/Nov/2024 @ 12:00 AM CST (UTC -6)

End: 18/Nov/2024 @ 7:00 AM CST (UTC -6)

[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 19/Nov/2024 @ 12:00 AM CST (UTC -6)

End: 19/Nov/2024 @ 7:00 AM CST (UTC -6)

[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 21/Nov/2024 @ 2:00 AM CST (UTC -6)

End: 21/Nov/2024 @ 4:00 PM CST (UTC -6)

Radio Central Patches:

There were none last month.

Radio Management CPS Patches:

There were none last month.

Releases:

- APX Portables and Mobiles (APX 4000 and APX 8500) Firmware Devices R33.40.00 2024.1 CPS R33.00.01 is a maintenance release and was available 8/22/24. It included new product and features. No defect repairs included. Minor update and application is optional.
- APX NEXT Firmware. R07.02.00 CPS 2.150.244.0 is a maintenance release and was available 10/1/24. It included new product and features. No defect repairs included. Minor update and application is optional.

STARCOM21 Unscheduled System Outages:

There were none last month.

Meetings:

- November PAC meeting 11/4/24

Training:

- APX Radio Management Workshop 10/30/24–11/1/24

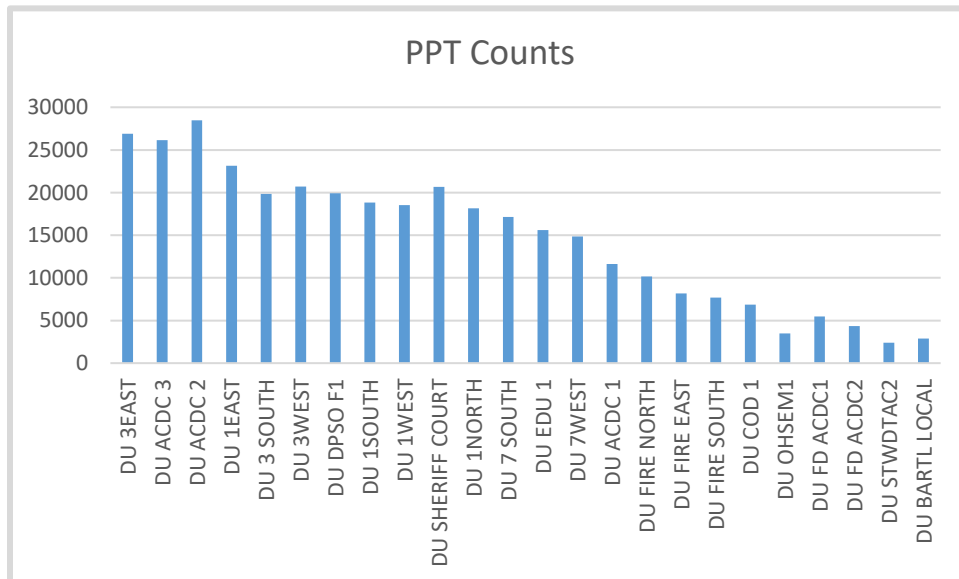
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Grade of service report:

October 2024 Starcom21 GoS Report											
Hour	GoS Calculations					PTT and Busy Data					
	GoS	Utilization	Erlangs	Excess Erlangs	Days of Data	Total PTTs	Total Talk Time (sec)	Average Talk Time (sec)	Total Busy	Total Busy Time (sec)	Average Busy Time (sec)
0:00:00	0.00	21.68	3.69	6.71	31.00	2635.03	13270.77	5.04	0.00	0.00	0.00
1:00:00	0.00	18.66	3.17	7.23	31.00	2232.26	11417.32	5.11	0.00	0.00	0.00
2:00:00	0.00	16.65	2.83	7.57	31.00	1965.97	10191.48	5.18	0.00	0.00	0.00
3:00:00	0.00	13.39	2.28	8.12	31.00	1501.48	8197.42	5.46	0.00	0.00	0.00
4:00:00	0.00	12.98	2.21	8.19	31.00	1441.52	7944.81	5.51	0.00	0.00	0.00
5:00:00	0.00	14.36	2.44	7.96	31.00	1609.71	8786.52	5.46	0.00	0.00	0.00
6:00:00	0.00	16.34	2.78	7.62	31.00	1883.35	10001.58	5.31	0.00	0.00	0.00
7:00:00	0.00	23.60	4.01	6.39	31.00	2785.00	14444.29	5.19	0.00	0.00	0.00
8:00:00	0.00	30.88	5.25	5.15	31.00	3701.13	18899.39	5.11	0.00	0.00	0.00
9:00:00	0.00	34.48	5.86	4.54	31.00	4159.06	21099.39	5.07	0.06	6.16	95.50
10:00:00	0.00	34.85	5.93	4.47	31.00	4199.29	21330.45	5.08	0.06	1.42	22.00
11:00:00	0.00	34.37	5.84	4.56	31.00	4201.68	21036.94	5.01	0.00	0.00	0.00
12:00:00	0.00	35.57	6.05	4.35	31.00	4257.26	21768.13	5.11	0.03	0.16	5.00
13:00:00	0.00	36.93	6.28	4.12	31.00	4396.23	22599.26	5.14	0.10	1.65	17.00
14:00:00	0.00	35.99	6.12	4.28	31.00	4379.10	22028.94	5.03	0.03	1.32	41.00
15:00:00	0.01	37.36	6.35	4.05	31.00	4582.48	22863.90	4.99	0.39	5.90	15.25
16:00:00	0.00	37.50	6.37	4.03	30.00	4588.07	22949.67	5.00	0.00	0.00	0.00
17:00:00	0.74	35.79	6.08	4.32	31.00	4403.81	21903.58	4.97	32.55	349.39	10.73
18:00:00	0.00	32.98	5.61	4.79	31.00	4085.10	20182.00	4.94	0.00	0.00	0.00
19:00:00	0.00	33.19	5.64	4.76	31.00	4116.06	20312.32	4.93	0.00	0.00	0.00
20:00:00	0.00	32.13	5.46	4.94	31.00	3989.52	19666.03	4.93	0.16	2.23	13.80
21:00:00	0.00	30.53	5.19	5.21	31.00	3782.39	18686.26	4.94	0.00	0.00	0.00
22:00:00	0.00	27.88	4.74	5.66	31.00	3500.06	17060.90	4.87	0.00	0.00	0.00
23:00:00	0.00	25.51	4.34	6.06	31.00	3183.42	15612.84	4.90	0.00	0.00	0.00

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<i>Group Alias</i>	<i>PTT Count</i>
DU 3EAST	26906
DU ACDC 3	26130
DU ACDC 2	28455
DU 1EAST	23127
DU 3 SOUTH	19842
DU 3WEST	20687
DU DPSO F1	19899
DU 1SOUTH	18816
DU 1WEST	18519
DU SHERIFF COURT	20666
DU 1NORTH	18144
DU 7 SOUTH	17157
DU EDU 1	15619
DU 7WEST	14850
DU ACDC 1	11615
DU FIRE NORTH	10161
DU FIRE EAST	8159
DU FIRE SOUTH	7701
DU COD 1	6877
DU OHSEM1	3476
DU FD ACDC1	5476
DU FD ACDC2	4335
DU STWDTAC2	2392
DU BARTL LOCAL	2901





ETSB Other Action Item

421 N. COUNTY FARM
ROAD
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File #: 25-0144

Agenda Date: 1/6/2025

Agenda #: 7.B.1.

Solving for safer. Communities, schools, hospitals, businesses everywhere.

TO: Linda Zerwin, ETSB Executive Director
FROM: Andy Saucedo, Motorola System Manager
DATE: December 30, 2024
SUBJECT: STARCOM21 DEDIRS Monthly Report

Projects:

DEDIR System Radio Replacement

APXNext Police: ADP to AES encryption plan pending. Motorola Solutions has provided the proposal for the cutover plan.

APX 4000: Emergency activation configuration update was created to address a programming issue and a schedule was developed in Monday.com to update radios. Emergency activation configuration change has been applied to 15 agencies/73 radios have been programmed. There are 5 agencies/22 radios that remain to be programmed. (Oak Brook/1, Itasca/1, Elmhurst/12, Lombard/7, Wheaton/1).

APX8500: Alternate options to the APX8500 are being considered. APX6500 mobiles were staged for demo to Fire agencies. Additional APX6500 mobiles were configured and provided to Addison Fire for install and testing.

APXNext XN Fire: Fire radio configuration templates need IGA finalization with outside agency. Testing of the XN Demo radios was completed the week of June 17, 2024. AES encryption plan is pending. Motorola Solutions has provided the proposal for the cutover plan.

Programming – Projects

Code plug updates: There were none last month.

Codeplug Creation: There were none last month.

Consolidations: There were none last month.

Radio Alignment: There were none last month.

Service Tickets

Category	Year to Date		Past Month					
			Totals		Categories of Tickets			
	Opened	Closed	Total	Closed	Consumable replaced	Alias or Configuration	Sent to Depot	Other
APX 7000XE	81	58	5	2			7	
APX Next (PD)	144	108	11	8	1	7	2	1
APX NextXN (FD)	1	0	0	0				
APX 8500 (mobile)	32	30	2	2		1	1	
APX4000	11	6	2	2		1	1	
Total	269	202	20	14	1	9	11	1

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STARCOM21 Scheduled Maintenance:

System Patches:

The Starcom21 team and Motorola RSUS team applied security update patches to the Starcom21 system core in all Zones. The Patching efforts were done by the RSUS team on 12/11 and 12/12. These patches caused an impact to the system in all Zones. It would have caused RF Site to enter to site trunking and Dispatch Sites to get Red X's on resources.

Thursday, 12/12/24

8:45 am- Site Trunking Event (~5 Minute Event)
Red X's on Consoles for 5 Minutes as well
2:45 pm - Site Trunking Event (~5 Minute Event)
Red X's on Consoles for 5 Minutes as well

IL STARCOM Monthly Application of Windows Motopatch 2024.11 – Patching 12/13/24. Monthly MOTOPATCH for Windows process was performed on applicable clients in your ASTRO System.

Command Central Patches:

[Scheduled Maintenance] Command Central Products (United States)

Start: 05/DEC/2024 @ 1:00 AM CST (UTC -6)

End: 05/DEC/2024 @ 4:30 AM CST (UTC -6)

Command Central Aware (United States)

Markups will be available to Command Central Aware users on December 11, 2024.

Starting December 11, 2024, Markups will replace Tactical Tools in CommandCentral Aware. After this date, drawings and graphics created with Tactical Tools will only be available in read-only mode. While you can still view features created with Tactical Tools, you cannot create new features using Tactical Tools.

SmartConnect Patches:

[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 03/Dec/2024 @ 5:00 PM CST (UTC -6)

End: 03/Dec/2024 @ 9:00 PM CST (UTC -6)

[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 04/DEC/2024 @ 1:00 AM CDT (GMT -6)

End: 04/DEC/2024 @ 9:00 AM CDT (GMT -6)

[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 05/Dec/2024 @ 1:00 AM CST (UTC -6)

End: 05/Dec/2024 @ 4:30 AM CST (UTC -6)

[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 05/Dec/2024 @ 5:00 PM CST (UTC -6)

End: 05/Dec/2024 @ 9:00 PM CST (UTC -6)

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[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 09/DEC/2024 @ 2:30 AM CST (GMT -6)

End: 09/DEC/2024 @ 9:00 AM CST (GMT -6)

[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 10/DEC/2024 @ 5:00 PM CST (GMT -6)

End: 10/DEC/2024 @ 11:00 PM CST (GMT -6)

[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 11/DEC/2024 @ 8:00 PM CST (GMT -6)

End: 12/DEC/2024 @ 4:00 AM CST (GMT -6)

[Scheduled Maintenance] SmartConnect (United States)

The scheduled maintenance has been completed.

Start: 12/Dec/2024 @ 11:00 PM CST (UTC-6)

End: 13/Dec/2024 @ 5:00 AM CST (UTC-6)

Radio Central Patches: There were none last month.

Radio Management CPS Patches: There were none last month.

Releases:

APX Portables and Mobiles (APX 4000 and APX 8500) Firmware Devices R33.40.00 2024.1 CPS R33.00.01 is a maintenance release and was available 8/22/24. It included new product and features. No defect repairs included. Minor update and application is optional.

APX NEXT Firmware. R07.02.00 CPS 2.150.244.0 is a maintenance release and was available 10/1/24. It included new product and features. No defect repairs included. Minor update and application is optional.

IMPRES 2 Charger Software Release: Enhancements have been made to the software used in the IMPRES 2 multiunit chargers. Software V2.11 Sep 2024 may improve charging efficiency and capacity reporting. Update is optional.

STARCOM21 Unscheduled System Outages: There were none last month.

Meetings: There were none last month.

Training: There was none last month.



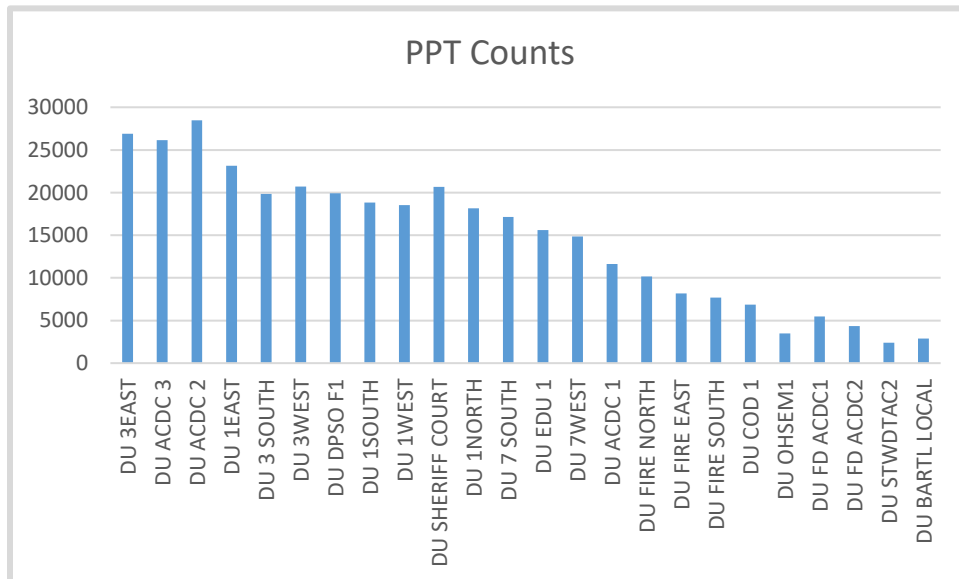
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Grade of service report:

November 2024 Starcom21 GoS Report											
Hour	GoS Calculations					PTT and Busy Data					
	GoS	Utilization	Erlangs	Excess Erlangs	Days of Data	Total PTTs	Total Talk Time (sec)	Average Talk Time (sec)	Total Busy	Total Busy Time (sec)	Average Busy Time (sec)
0:00:00	0.00	20.82	3.54	6.86	30.00	2649.17	12739.03	4.81	0.00	0.00	0.00
1:00:00	0.00	18.16	3.09	7.31	30.00	2349.17	11116.87	4.73	0.00	0.00	0.00
2:00:00	0.00	15.27	2.60	7.80	30.00	1884.93	9343.37	4.96	0.00	0.00	0.00
3:00:00	0.00	12.73	2.16	8.24	30.00	1503.93	7789.70	5.18	0.00	0.00	0.00
4:00:00	0.00	12.37	2.10	8.30	30.00	1496.57	7571.27	5.06	0.00	0.00	0.00
5:00:00	0.00	12.74	2.17	8.23	30.00	1559.67	7794.53	5.00	0.00	0.00	0.00
6:00:00	0.00	14.23	2.42	7.98	30.00	1757.63	8710.73	4.96	0.00	0.00	0.00
7:00:00	0.00	21.36	3.63	6.77	30.00	2624.97	13074.30	4.98	0.00	0.00	0.00
8:00:00	0.00	28.45	4.84	5.56	30.00	3476.90	17412.90	5.01	0.00	0.00	0.00
9:00:00	0.01	32.50	5.53	4.87	30.00	3929.00	19891.30	5.06	0.20	0.33	1.67
10:00:00	0.00	33.29	5.66	4.74	30.00	4048.80	20375.37	5.03	0.03	1.37	41.00
11:00:00	0.00	32.66	5.55	4.85	30.00	3969.23	19986.90	5.04	0.07	1.40	21.00
12:00:00	0.00	31.38	5.34	5.06	30.00	3825.40	19206.33	5.02	0.07	1.37	20.50
13:00:00	0.00	34.05	5.79	4.61	29.00	4113.24	20836.93	5.07	0.00	0.00	0.00
14:00:00	0.00	32.96	5.60	4.80	29.00	4081.97	20171.83	4.94	0.03	1.38	40.00
15:00:00	0.00	32.41	5.51	4.89	29.00	4006.03	19835.10	4.95	0.00	0.00	0.00
16:00:00	0.00	32.23	5.48	4.92	30.00	4027.90	19725.40	4.90	0.00	0.00	0.00
17:00:00	0.00	33.34	5.67	4.73	30.00	4146.83	20403.17	4.92	0.07	6.63	99.50
18:00:00	0.00	31.06	5.28	5.12	30.00	3870.47	19009.93	4.91	0.00	0.00	0.00
19:00:00	0.00	30.23	5.14	5.26	30.00	3817.70	18498.37	4.85	0.00	0.00	0.00
20:00:00	0.00	28.97	4.93	5.47	30.00	3621.40	17732.13	4.90	0.00	0.00	0.00
21:00:00	0.00	27.39	4.66	5.74	30.00	3490.90	16765.63	4.80	0.00	0.00	0.00
22:00:00	0.00	24.44	4.15	6.25	30.00	3165.13	14957.53	4.73	0.00	0.00	0.00
23:00:00	0.00	23.46	3.99	6.41	30.00	3024.67	14355.60	4.75	0.00	0.00	0.00

Solving for safer. Communities, schools, hospitals, businesses everywhere.

<i>Group Alias</i>	<i>PTT Count</i>
DU 3EAST	26906
DU ACDC 3	26130
DU ACDC 2	28455
DU 1EAST	23127
DU 3 SOUTH	19842
DU 3WEST	20687
DU DPSO F1	19899
DU 1SOUTH	18816
DU 1WEST	18519
DU SHERIFF COURT	20666
DU 1NORTH	18144
DU 7 SOUTH	17157
DU EDU 1	15619
DU 7WEST	14850
DU ACDC 1	11615
DU FIRE NORTH	10161
DU FIRE EAST	8159
DU FIRE SOUTH	7701
DU COD 1	6877
DU OHSEM1	3476
DU FD ACDC1	5476
DU FD ACDC2	4335
DU STWDTAC2	2392
DU BARTL LOCAL	2901





ETSB PAC Other Action Item

421 N. COUNTY FARM
ROAD
WHEATON, IL 60187
www.dupagecounty.gov

File #: 25-0119

Agenda Date: 1/6/2025

Agenda #: 7.C.1.



DU PAGE COUNTY

ETSB - Policy Advisory Committee

Draft Summary

421 N. COUNTY FARM ROAD
WHEATON, IL 60187
www.dupagecounty.gov

Monday, November 4, 2024

8:15 AM

Room 3500A

Join Zoom Meeting

<https://us02web.zoom.us/j/81407792131?pwd=kUX8Jx419jMqRxxC8xBE6WQ1wFYezC.1>

Meeting ID: 814 0779 2131

Passcode: 439928

1. CALL TO ORDER

8:15 AM meeting was called to order by Chair Selvik at 8:15 AM.

2. ROLL CALL

Attendees:

Linda Zerwin, DuPage Emergency Telephone System Board, non-voting Member

Gregg Taormina, DuPage Emergency Telephone System Board

Eve Kraus, DuPage Emergency Telephone Board

Nick Kottmeyer, County Board Office

Erik Maplethorpe, DU-COMM

Jim Connolly, Village of Addison (Remote)

Marilu Hernandez, ACDC (Remote)

Alison Murphy, DMMC (Remote)

Bob Murr, COD (Remote)

Jason Norton, Darien PD (Remote)

Christopher Weinbrenner, Addison PD (Remote)

On roll call, Members Selvik, Benjamin, Burmeister, Clark, Fleury, and Johl were present, which constituted a quorum.

PRESENT Selvik, Johl, Benjamin, Burmeister, Clark, and Fleury
--

3. PUBLIC COMMENT

There was no public comment.

4. CHAIRMAN'S REMARKS - CHAIR SELVIK

There were no remarks from Chair Selvik.

5. MEMBERS' REMARKS

There were no Members' remarks.

6. CONSENT ITEMS

6.A. [24-2941](#)

DEDIR System October Maintainer Report

Attachments: [Motorola System Manager Report 10-28-24.pdf](#)

RESULT: ACCEPTED AND PLACED ON FILE
MOVER: Tyler Benjamin
SECONDER: Eric Burmeister

6.B. [24-2942](#)

ETSB PAC Minutes - Regular Meeting - Monday, October 7, 2024

Attachments: [2024-10-07 PAC Minutes Summary.pdf](#)

RESULT: ETSB RECEIVED AND PLACED ON FILE
MOVER: Eric Burmeister
SECONDER: Colin Fleury

7. PARENT COMMITTEE APPROVAL REQUIRED

7.A. [24-2943](#)

2025 Meeting Calendar - Policy Advisory Committee

On voice vote, all Members voted "Aye" to recommend approval to the ETS Board, motion carried.

Attachments: [PAC Meeting Schedule 2025.pdf](#)

RESULT: ETSB RECOMMENDED FOR APPROVAL
MOVER: Pat Johl
SECONDER: Eric Burmeister

7.B. [ETS-R-0075-24](#)

Recommendation for the approval of a contract purchase order to Motorola Solutions, PO 924030, to develop an encryption deployment plan for the DuPage Emergency Dispatch Interoperable Radio System (DEDIR System), for a contract total of \$200,836.99; contract pursuant to the Governmental Joint Purchasing Act, 30 ILCS 525/2 (STARCOM21 Master Contract CMT2028589).

Member Benjamin questioned whether the development of encryption was part of the initial deployment plan and if not, what was the plan. Ms. Zerwin answered, at the time

of the procurement, the Chiefs knew they wanted encryption but there was no design as to what levels they wanted on the talkgroups. Member Benjamin asked, if this were not approved, what would happen. Ms. Zerwin said we would struggle to design the encryption program ourselves. She said this is more complicated than was realized and more than the Motorola System Manager could do on his own. Ms. Zerwin said that while the Motorola System Manager understands encryption, and John Nebl, Erik Maplethorpe, and Jim Connolly were sent to training to understand the process of encryption, there are factors such as the number of keys to be programmed into the radios and how that fits into the STARCOM master plan for keyloading. She said the background processes were not worked into the original plan and that the plan of the Chiefs has evolved with the talkgroup name changes and work behind the scenes. Chair Selvik concurred, saying there have been a lot of changes over the past few years.

Member Benjamin then asked for something such as this, is the PAC where a recommendation for contract approval would come through. Ms. Zerwin answered, yes and no, not everything. Ms. Zerwin provided a brief history of the Radio Steering Committee and how when that group was finished part of the Intergovernmental Agreement for the DEDIR System was that there be a Policy Advisory Committee for the purpose of overseeing policy related to operation of the DEDIR System. The intent of PAC is to develop policies related to the radio system. Ms. Zerwin said that because this contract directly relates to the radio and specifically encryption and what they are trying to do as a group, it is appropriate to come through the PAC. She said members of the police and fire focus groups have worked with ETSB on the language in the proposal because it is operational and complex. Ms. Zerwin said that it is taking their plan on paper versus the technical aspect of it and implementing it the best way possible. Member Benjamin said there is a lot of what exactly will be provided in the proposal the PAC is recommending for approval. Ms. Zerwin confirmed and Member Benjamin replied, thank you.

Member Clark said this is for consulting and engineering to set up encryption and that it does not cover ongoing responsibilities once encryption is set up. He asked if ongoing maintenance of encryption keys would be in addition to this. Ms. Zerwin believed that would fall under the jurisdiction of the System Manager. Discussion ensued regarding the costs of some of the proposed work and whether some of the specific details in the proposal had already been completed, the goals of what is to be accomplished, the capacity issues within the STARCOM infrastructure, and that the purpose of the proposal is the design of the encryption plan. Chair Selvik said this is a recommendation to the ETS Board, that it can be explained to the members of the board and they can decide. Member Clark asked if this had been run through ETSB legal. Ms. Zerwin replied yes that nothing goes to the Board without going through legal per County policy.

On voice vote, all Members voted "Aye" to recommend approval of the contract purchase order to the ETS Board, motion carried.

Attachments: [Motorola 924030 PRCC.pdf](#)
[DuPage County, Illinois Encryption Proposal Final_Redacted.pdf](#)

RESULT:	ETSB RECOMMENDED FOR APPROVAL
MOVER:	Pat Johl
SECONDER:	Eric Burmeister

8. DEDIR SYSTEM

8.A. Police

8.A.1. Encryption Update

This item was discussed under Agenda Items 7.B.. There was no further discussion.

8.B. Fire

Member Johl said the most recent templates had been distributed to the agencies for updates and review by the Fire Focus Group to start programming radios. He said there is a Fire Focus Group meeting coming up with Motorola to discuss mobiles. Ms. Zerwin said she had a meeting with Motorola regarding next steps. She said that Motorola had asked if Fire Focus might be willing to work with product on 8500 developments. Ms. Zerwin said this came about quickly, and although not as quickly as DuPage would like, they were responsive.

8.C. WAVE App

Ms. Zerwin said the WAVE app had grown more than Motorola had anticipated and the number of talkgroups on the system overall is at capacity. A list of the talkgroups available to DuPage had been disseminated with the Members’ board information. She said no DuPage agencies had yet complained that they could not access a talkgroup, but that recently Clarendon Hills was denied their local channel because of capacity. Ms. Zerwin said that Motorola is working on the rework of the WAVE app that had started with Northwest Central, and that DuPage was in the queue. A short discussion ensued around usage, capacity by agency on the new system, and whether the full capacity may affect agencies now. Member Johl said there is a difference between how police utilize the app versus fire. Police are using it for personnel who cannot access a radio and this is their only means of communication whereas fire chiefs have a radio but carry a device with the app out of convenience and those are limits they may need to consider out of safety for their personnel. He said the requests had not had restrictions put on them but may need to if the migration to new WAVE was not carried out quickly. Chair Selvik asked if there was a need right now to evaluate usage. Ms. Zerwin said she believes it may come down to what comes first, the capacity level changes or the PAC received another request. Chair Selvik said he agrees with Member Johl, that if this is going to take time, and an agency is operating on a TAC channel for undercover purposes and who may not want to carry a radio, the PAC may want to start evaluating usage. Ms. Zerwin reviewed the policy which stated the WAVE app was not to be used for first line user dispatch as it has a lower priority than the regular channels. The question was asked of approximately how many DuPage agencies were utilizing the app to which Ms. Kraus answered, about a dozen, which was a mix of police and fire. Ms. Zerwin said for the next meeting, the policy, a list of users, number of users, and the available talkgroups would be provided for discussion and she would check on the position of DuPage in Motorola’s queue.

9. OLD BUSINESS

There was no old business.

10. NEW BUSINESS

Chair Selvik said this was Member Johl's last PAC meeting, that he would be missed but that he was moving up to replace Chief Erik Kramer as the Fire Representative on the ETS Board and hopefully approving the PAC's recommendations. Member Johl thanked the members of the PAC and Fire Focus Group for all the work they had done over the last four years to try to get the radios out to fire personnel.

11. ADJOURNMENT**11.A. Next Meeting: Monday, December 2 at 8:15am in Room 3-500A**

Vice Chair Johl made a motion to adjourn the meeting at 8:45am, seconded by Member Benjamin. On voice vote, motion carried.

Respectfully submitted,

Eve Kraus



ETSB PAC Resolution

421 N. COUNTY FARM
ROAD
WHEATON, IL 60187
www.dupagecounty.gov

File #: ETS-R-0001-25

Agenda Date: 2/3/2025

Agenda #: 7.D.2.

RESOLUTION TO AMEND AND APPROVE POLICY 911-005.11: ACCESS TO THE DU PAGE EMERGENCY DISPATCH INTEROPERABLE RADIO SYSTEM (DEDIR SYSTEM) WAVE

WHEREAS, the DuPage County Emergency Telephone System Board (“DU PAGE ETSB”) is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 (“Act”); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System for citizens of the County of DuPage and portions of Cook, Kane and Will counties; and

WHEREAS, the DU PAGE ETSB shall develop policies in order to plan, implement, upgrade, and maintain the DuPage ETSB 9-1-1 System; and

WHEREAS, the purpose of this resolution is to approve the language of Policy 911-005.11: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIR System) WAVE, initially adopted by the DU PAGE ETSB on July 13, 2020; and

WHEREAS, Policy 911-005.11: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIR System) WAVE has been reviewed by the DU PAGE ETSB Policy Advisory Committee (“PAC”) as Section 5.2.1; and

WHEREAS, the Board members of DU PAGE ETSB have reviewed Policy 911-005.11: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIR System) WAVE which allows for access to DEDIRS talk groups as detailed in Attachment A of this resolution.

NOW, THEREFORE BE IT RESOLVED, that the DU PAGE ETSB Policy 911-005.11: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIR System) WAVE be, and it is hereby amended and adopted.

Enacted and approved this 12th day of February, 2025 at Wheaton, Illinois.

GREG SCHWARZE, CHAIR

Attest: _____

JEAN KACZMAREK, COUNTY CLERK

Emergency Telephone System Board Of DuPage County Policy and Procedures



Policy #: 911- 005.11
Previous Policy(s): New
Effective Date: July 13, 2020
Revised: February 12, 2025

Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIR System) WAVE

Purpose:

The purpose of this policy is to ensure that WAVE users are in compliance with State of Illinois STARCOM21 and DEDIR System requirements for use and access of DEDIR System talk groups for the purpose of interoperability for emergency communications.

Additional Authority:

50 ILCS 750 Emergency Telephone System Act
OEX-003B-89 Amending Section 20-40 of the DuPage County Code Pertaining to the Emergency Telephone System Board

Scope:

This policy shall apply to all Public Safety Answering Points (PSAPs) in the DuPage ETSB 9-1-1 System, including all Telecommunicators and other employees of the PSAP, user agencies or DuPage ETSB staff, contracted vendors or other authorized agents, DEDIR System users and agencies receiving approval to access DEDIR System talk groups.

I. Policy Statement

DuPage ETSB leases a portion of the Motorola Solutions, Inc. STARCOM21 network in Illinois as an integrated component of its emergency dispatch telephone system. The system permits communication between telecommunications and the first responder personnel they dispatch in response to calls placed to 9-1-1. The system also permits personnel from public safety agencies throughout the County to communicate with each other during emergency joint response situations.

Motorola Solutions provides WAVE that is a “push-to-talk” APP for use on STARCOM21. ETSB does not recommend this APP for first responders being dispatched to emergency calls because it has a lower priority in the STARCOM21 system than the main dispatch talk groups because it relies on a public infrastructure, which Motorola does not control, not the private STARCOM system.

II. Application Procedure

Any agency that determines it has a need to communicate using the STARCOM21 WAVE APP (WAVE) shall complete the application in the following manner:

Agency Responsibilities

Initial Application: The Agency will be responsible for ensuring that each agency user who will be utilizing WAVE has been provided the following documents, and that the user has read the documents and executed application forms as indicated below:

Attachments	Agency	User
Attachment A: WAVE Access Application Form	Execute	Read
Attachment B: WAVE Support Limitation and Disclaimer*	Execute	Read

Emergency Telephone System Board Of DuPage County Policy and Procedures



Attachment C: WAVE DoIT Enterprise Information Security Policy		Read
Attachment D: WAVE User Moto Excel Worksheet*	Complete	Read
Attachment E: WAVE User Guide	Retain	Read

*STARCOM21 Required paperwork

Completed paperwork should be submitted as electronic copies to ETSB via ETSB911@dupagecounty.gov. Upon approval of the application, ETSB staff will transmit the application to Motorola including the Applicant as an email recipient.

STARCOM21 will allow access only to talk groups that are currently in your radio.

Note: For talk groups that appear in the radio that are provided based on agreement with another STARCOM21 user, Motorola will require a Memorandum of Understanding (MOU) between the parties that expands the current agreement to include WAVE access.

Contact ETSB at ETSB911@dupagecounty.gov to request assistance with this process so that permission can be obtained once for all DEDIR System users. The executed MOU will be required prior to approval. Each user can have up to two (2) profiles or 32 talk groups, 16 per profile.

Additional Paperwork: Any agency that does not currently have (or had) a monthly billing account with Motorola for airtime must also complete the following paperwork:

Attachments	Agency	User
Attachment F: Government User Agreement*	Execute	
Attachment G STARCOM21 Billing Information Form*	Read and Execute	

*STARCOM21 Required paperwork

Agencies will be responsible for notifying Motorola and ETSB when a user ends their affiliation with the agency. Notification should be made to the Motorola NOC within 48 hours of the termination of the relationship.

A. Agency Modification

Attachment E: WAVE User Moto Worksheet is a living document. The Agency will use Tab 3: WAVE Updates for any changes or modifications. This can include additional users, deleting users and changes to profiles. Users that should be deleted should be processed quickly to avoid additional monthly charges.

ETSB will require a copy of any changes for their files.

Updates should be sent directly to STARCOM1 for processing at the email address listed at the top of the Tab 3: WAVE Update worksheet. Each time an agency makes an update, the new excel worksheet should be renamed to include the date so that the most recent copy is easily identified. (ie: WAVE-Users_Moto_Worksheet Agency Name June 1 2024).

User Responsibilities

Each Agency user should read this policy in its entirety. Each user should execute Attachments A, B and D and provide the originals to their Agency.

Emergency Telephone System Board Of DuPage County Policy and Procedures



Users should follow all ETSB and agency policies regarding the use of DEDIR System while using WAVE. ETSB and STARCOM21 reserve the right to terminate a user's access to DEDIR System and STARCOM21 for inappropriate conduct or policy violations.

DuPage ETSB Responsibilities

ETSB will provide Motorola STARCOM21 with one Letter of Support that encompasses all DuPage agencies and users who have successfully completed the application process. This letter is a STARCOM21 requirement.

ETSB staff will assist users in the processing of their completed application with the Policy Advisory Committee.

ETSB staff will assist applicants with the MOU process, if needed. MOUs will be completed by ETSB as the STARCOM member so that access can be granted for all DEDIR System members (as appropriate) in the future.

Policy Advisory Committee Responsibilities

The PAC shall review any application for WAVE access. During that review process the PAC shall:

- Ensure that all associated paperwork is complete.
- Shall discuss the application and vote on whether to support the application with STARCOM21.
- PAC shall have the authority to authorize WAVE applications for existing DEDIR System members.
- In the event the PAC denies the application, the application and brief written explanation by the PAC Chair, or his designee, shall be forwarded to the ETS Board for their information and discussion. In the event the PAC cannot reach a consensus vote, that fact shall be reported to the ETS Board in writing for their information and discussion.
- The Applicant will be notified of the DuPage ETSB decision. If approved, the ETSB staff will forward the application to STARCOM21 via email including the Applicant as an email recipient.

Upon approval of this policy, the ETS Board grants the PAC authority to approve WAVE applications of DEDIR System members. Approved applications will be noted in the ETSB monthly report under the DEDIR System section.

The ETS Board also allows this policy to be modified to include any of the required STARCOM21 forms or ETSB forms to be replaced or amended to keep current with STARCOM21 requirements so long as there is no substantive change to the intent of this policy.

Policy adopted: _____

Greg Schwarze, Chair

DuPage ETSB DEDIR System WAVE Access Application

AGENCY INFORMATION						
Type of Application:	[] Initial [] Modification					
DATE:						
NAME OF AGENCY:						
POINT OF CONTACT:						
BUSINESS ADDRESS:						
EMAIL ADDRESS:						
MOBILE TELEPHONE:						
APPLICATION INFORMATION						
Please complete the following information				NO	YES	
The APP will not be used for first line user dispatch since it has a lower priority on the system						
The Applicant understands that the cost for the APP is the Applicant's responsibility						
The Applicant understands that any changes must be provided according to policy.						
The Applicant has received DEDIRS Policy 911-005.11: <i>WAVE Use on DEDIR System</i> and all users under this application have read and will comply with the policy.						
APPLICATION CHECKLIST						
Note: The application cannot be approved by STARCOM21 or ETSB without the required documents listed below						
The Applicant has provided the following as part of this application:				YES		
WAVE Support Limitation and Disclaimer, executed (one per agency)*						
The WAVE App will be used on an employee-owned device, a copy of the Agency policy is attached						
** Items below are for Users without a Motorola billing account only **				N/A	YES	
STARCOM21 Government User Agreement						
STARCOM21 Billing Information Form						
Approvals			ABSENT	ABSTAIN	NO	YES
Policy Advisory Committee (provide vote count)						

I am submitting this application on behalf of my organization and the users represented herein. I certify that I am authorized to act on behalf of my organization for this application and that the information provided is correct to the best of my knowledge.

I understand that my Agency must submit a Zendesk ticket within 24 hours of a device using WAVE being lost/stolen or the employee using WAVE being separated to protect the security of the DEDIR System.

 Applicant Point of Contact Signature

Date: _____

Addendum C



STARCOM21 State of Illinois Radio System

WAVE Support Limitations and Disclaimer

The STARCOM21 WAVE Application is a hosted, enterprise-grade, broadband push-to-talk (PTT) service that provides real-time, secure communications between groups and individuals using smart devices, PCs, and Land Mobile Radio (LMR) systems. Motorola Solutions offers the following as to the applicable support limitations and disclaimer of liability on these devices and the WAVE service.

- Because Motorola Solutions has no control over third party manufacturers' quality, hardware, or software, any issues the customer experiences with third party manufacturers' devices, including, but not limited to, issues relating to the operation of such devices on the STARCOM21 system must be addressed by the third party radio manufacturer. Motorola Solutions disclaims any liability to customer with respect to devices or equipment produced by third parties.
- Motorola Solutions is not responsible for (a) use or operation of the Software except in accordance with the applicable and current documentation and license rights; (b) errors, omissions, damages or wrongful acts, by an operator, user or third party personnel; (c) repairs, maintenance, alterations, relocation, copying, tampering or other conduct not duly authorized in writing by MSI; (d) operation on or in association with hardware or software not recommended by MSI for the Software; and (e) external causes such as electrostatic or environmental conditions, and accidents including fire, water and lightning. Further, MSI reserves the right to downgrade the Service level of any Customer if, in MSI's opinion, the Customer is abusing the use of the Service support features.
- End user is responsible for services for problems that are subsequently determined by MSI to be not caused by the Software, including problems with carrier or Wi-Fi network or matters generally beyond the control of Motorola Solutions.
- Periodically, Motorola Solutions may perform enhancements or upgrades to the STARCOM21 system. System enhancements or upgrades may be done to address issues, add features to the system, or for other reasons deemed necessary by Motorola Solutions. Motorola Solutions does not guarantee that devices or equipment manufactured by third parties will not be affected by such enhancements or upgrades. Motorola Solutions makes no representations or warrants with respect to: a) support, upgrades, patches or similar fixes, and enhancements to third-party manufactured devices or equipment; and b) notice to third party radio or equipment manufacturers of system enhancements or upgrades.
- If, in Motorola Solutions' opinion, third party devices or equipment adversely impact the STARCOM21 system or system user operations, Motorola Solutions may deactivate such radios or equipment. Motorola Solutions will provide notice of deactivation in a timely manner based on the severity of the situation and the impact to grade of service.
- Motorola Solutions hereby disclaims all warranties and guarantees, express or implied, at law or in equity, in any way related to the use by customer of third-party manufacturers' devices or equipment.

Motorola Solutions values you as a customer and would like to thank you for allowing us to provide your radio service. If you have any questions or concerns please contact your Sales Representative or a STARCOM21 Project Team Member at any time.

_____	_____	_____	_____
Motorola Solutions Representative	Date	Customer Representative	Date

Motorola Solutions Inc., 2100 Progress Parkway, Schaumburg, IL 60196



State of Illinois
Department of Innovation & Technology
Enterprise Information Security Policy
Access Control



1. OVERVIEW

It is the policy of the State of Illinois to protect State Information Systems against improper or unauthorized access that could result in the compromise of confidentiality, integrity, or availability of State of Illinois information, information technology (IT) assets, or technology-enabled capabilities. The establishment of appropriate and effective access controls helps to prevent accidental damage, disruption, physical tampering, eavesdropping, and other potential incidents. Unless otherwise specified, capitalized terms contained herein shall have the meaning assigned to them in the Terminology Glossary.

2. GOAL

The goal of this Policy is to reduce the security risks posed to State of Illinois Information Systems due to unauthorized or unintentional access, while meeting the access requirements for authorized Users.

3. SCOPE

This Policy applies to Users of DoIT and other State of Illinois agencies, boards, and commissions that have been identified as client agencies of DoIT through executive order, legislation, or inter-governmental agreement (Client Agencies).

4. REQUIREMENTS

DoIT and/or its Client Agencies will incorporate the below defined information security controls for all Information Systems. Any reference to "Agency" below shall include both DoIT and Client Agencies.

4.1 Account Management

- 4.1.1 Agency shall identify Information System account types to support its mission and business functions. Account types could include, but are not limited to, group, system, application, guest/anonymous, emergency, and temporary accounts.
- 4.1.2 Agency account managers shall assign Information System accounts.
- 4.1.3 Agency shall establish conditions for group and role membership.
- 4.1.4 Agency shall specify required attributes for authorized Users, group and role membership, and access authorizations.
- 4.1.5 Accounts shall not be created without specific Agency approval. Information Owners shall approve User accounts, roles, and access levels based on need-to-know rules.
- 4.1.6 Privileged accounts shall be approved as appropriate by the DoIT-designated Information System Administrator(s).
- 4.1.7 Agency shall establish standards and/or procedures for creating, enabling, modifying, disabling, and removing Information System accounts for each account type.
- 4.1.8 Agency shall monitor Information System accounts commensurate with the level of privilege, risk, or other established standards.
- 4.1.9 Agency shall establish procedures for notifying appropriate account managers when accounts are no longer required or when access level requirements change. Triggers for these notifications



State of Illinois
Department of Innovation & Technology
Enterprise Information Security Policy
Access Control



include but may not be limited to: User termination, User transfer, or changes to User job responsibilities.

- 4.1.10 Agency shall periodically review Information System accounts for compliance with established access rules.

4.2 Access Enforcement

- 4.2.1 Agency shall have the technical capability to enforce logical access to information and system resources in accordance with access control rules and policies.

4.3 Information Flow Enforcement

- 4.3.1 DoIT shall authorize and document business and security requirements for information flow between interconnected systems.

4.4 Separation of Duties

- 4.4.1 Agency shall address the potential for abuse of authorized privileges through the documentation and enforcement of separation of duties. Separation of duties includes but is not limited to: (i) dividing mission functions and Information System support functions; (ii) conducting Information System support functions with different individuals (e.g., system management, programming, and security); and (iii) ensuring that security personnel who administer access control functions do not also administer audit functions.

4.5 Least Privilege

- 4.5.1 Agency shall employ the principle of least privilege and allow only authorized access for Users (or processing actions on behalf of Users) that is necessary to accomplish assigned tasks.

4.6 Unsuccessful Logon Attempts

- 4.6.1 Information Systems must automatically lock an account after a maximum number of invalid or unsuccessful logon attempts.

4.7 System Use Notification

- 4.7.1 Internal Use Systems (State of Illinois Business Applications – Non-Public Use)
- An approved system use notification message or banner shall be displayed that provides privacy and security notices consistent with applicable state and federal laws, Executive Orders, directives, policies, regulations, standards, and guidance before granting access to the system. The notification message shall state that:
 - Users are accessing a State of Illinois Information System;
 - unauthorized use of the Information System is prohibited and subject to discipline and criminal and/or civil penalties; and



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- use of the Information System indicates consent to monitoring and recording.
- 4.7.2 Publicly Available Information Systems
- A publicly available Information System shall display system use information that includes a description of authorized uses of the system before granting further access.
 - A publicly available Information System shall display references, if any, to applicable monitoring, recording, or auditing that will be present with the use of the publicly available system.
- 4.7.3 System use notifications shall be retained on the screen until the User- acknowledges the usage conditions and takes explicit actions to log on to or further access the Information System.
- 4.7.4 Information Systems that are presented strictly for viewing publicly available information may be exempted from the system use notification requirement.

4.8 Session Lock

- 4.8.1 Information System sessions shall lock after a defined period of inactivity or upon receiving a request from the User.
- 4.8.2 A session lock shall remain in place until the User reconnects by using established identification and authentication.
- 4.8.3 Information Systems shall conceal information previously visible on the display with a publicly viewable image.

4.9 Session Termination

- 4.9.1 Information systems shall automatically terminate a User session after a defined period of inactivity.

4.10 Permitted Actions Without Identification and Authentication

- 4.10.1 Agency Information System security plans shall document any actions that will be permitted without identification or authentication and provide specific rationale for allowing these actions.

4.11 Remote Access

- 4.11.1 Authorization for remote access on laptops via VPN or desktops using virtualization software is granted upon a supervisor's request during the staff member onboarding process.
- 4.11.2 Usage restrictions and configuration/connection requirements for any planned or in-place remote access to the Information System are governed by the Acceptable Use policy.
- 4.11.3 Remote access shall be routed through a limited number of managed access control points by DOIT.
- 4.11.4 Standards for individual remote access and privileged remote access will be established to govern access control, credentialing, and access management.



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4.12 Wireless Access

- 4.12.1 Usage restrictions, configuration and connection requirements, and implementation guidance shall be established by DoIT for wireless access to Information Systems and the State of Illinois network.
- 4.12.2 Wireless access policies and practices shall be authorized by Agency executive management with guidance from DoIT. Agency wireless access to State of Illinois IT assets and infrastructure shall be protected using encryption and authentication of both Users and devices.
- 4.12.3 Wireless access services provided by DoIT for use by the public and/or visitors shall not be enabled to provide access to the State of Illinois network. Sufficient security controls and technology must be in place to ensure public users have no path through a public network to the State of Illinois network.

4.13 Access Control for Mobile Devices

- 4.13.1 To safeguard the confidentiality and integrity of information on mobile devices, the Agency shall implement either full-device encryption or container encryption.

4.14 Use of External Information Systems

- 4.14.1 Terms and conditions must be established by Agency prior to allowing external Information Systems to connect to State of Illinois Information Systems. Information System security plans must identify any and all external Information System connections that are planned or in place for the specific Information System. This requirement applies to: (i) any external Information Systems that will access a State of Illinois Information System; and (ii) the processing, storage, or transmission of State of Illinois information with/using external Information Systems.
- 4.14.2 State of Illinois employees, contractors, or third parties acting on behalf of the State of Illinois are prohibited from using external Information Systems to process, store, or transmit State of Illinois controlled information unless: (i) the Information System has been acquired for specific use by the State of Illinois and has been approved for use by DoIT; (ii) the Information System is being shared as part of a contract, interagency agreement, connection agreement, or other formal agreement; or (iii) the Information System has been explicitly approved by the Chief Information Security Officer.
- 4.14.3 The use of external systems shall only be approved by the Agency after verifying that the security controls of the external Information System comply with State of Illinois Enterprise Information Security Policies. The Agency authorized to utilize an external Information System must ensure that the external Information System has been properly added to the State of Illinois external Information System portfolio.
- 4.14.4 External Information System connection agreements shall be retained by the Agency that requires User or Information System access to the external Information System. Any connection agreements must be reviewed and renewed as stipulated in the connection agreements.



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4.15 Information Sharing

- 4.15.1 Information that is restricted under applicable law (e.g., privileged medical information, personally identifiable information, criminal justice information, federal tax information, classified information, and/or other sensitive information) may only be shared following a formal review and authorization. Authorization for the sharing of restricted information may be provided by the Agency's Legal Counsel, the Agency's Privacy Officer, or similar authority.
- 4.15.2 Information sharing agreements shall be completed by Agency and should, at minimum, define the purpose and justification for the information sharing, the information being shared, the information sharing process, and the procedures for retrieving or disposing of the shared information when the information sharing process is no longer needed.
- 4.15.3 All information sharing must be in compliance with State of Illinois Enterprise Information Security Policies.
- 4.15.4 Information Owners shall provide training to authorized Information System Users to assist Users in making appropriate information sharing decisions.

4.16 Publicly Accessible Content

- 4.16.1 Information Owners shall designate individuals who are authorized to post information onto a publicly available Information System.
- 4.16.2 Information Owners shall provide training to ensure that authorized Users do not publicly post information that contains non-public information.
- 4.16.3 Processes shall be established by Agency to review proposed public content prior to public posting to help ensure that non-public information is not included.
- 4.16.4 Publicly accessible Information Systems shall be reviewed by Agency designated staff for non-public information. Any non-public information discovered will be removed by Agency as soon as reasonably practicable.

5. POLICY COMPLIANCE

In order to implement this Policy, the DoIT Division of Information Security may establish supplemental policies, standards, procedures, and guidelines and may designate responsibility to specific personnel. To the extent necessary, each Client Agency and/or DoIT Division must establish procedures in order to achieve Policy compliance. It is the responsibility of Users to understand and adhere to this Policy.

Failure to comply with this Policy may result in the Chief Information Security Officer temporarily discontinuing or suspending the operation of the Information System, solution, and/or resource until such compliance is established as deemed solely by the Chief Information Security Officer. Failure to comply with this Policy could also result in the loss of access to State of Illinois IT Resources and/or discipline, up to and including discharge.



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6. RELATED POLICIES, STANDARDS, AND GUIDELINES

DoIT Supplemental Information Security Policies:

- (1) Criminal Justice Information Security
- (2) Federal Tax Information Security
- (3) Payment Card Data Protection
- (4) Protected Health Information Security

Revision history and approvals are reflected in ServiceNow.

Attachment D

<i>Agency (Department)</i>	<i>User Role (User or Dispatcher)</i>	<i>First Name</i>	<i>Last Name</i>	<i>Phone Number</i>	<i>WAVE Channel Group Name (Talkgroup Selection) - 2nd tab</i>	<i>Email Address</i>	<i>Notes</i>

<i>WAVE Channel Group Name:</i>		Group 1				
<i>Starcom Talk Group Alias</i>	<i>Talkgroup ID (dec)</i>	<i>Talkgroup ID (hex)</i>	<i>Encryption / CKR</i>	<i>Assigned IP</i>	<i>Assigned Port</i>	<i>Notes</i>

<i>WAVE Channel Group Name:</i>		Group 2				
<i>Starcom Talk Group Alias</i>	<i>Talkgroup ID (dec)</i>	<i>Talkgroup ID (hex)</i>	<i>Encryption / CKR</i>	<i>Assigned IP</i>	<i>Assigned Port</i>	<i>Notes</i>

<i>Requested Change/Update:</i>						



STARCOM21WAVE.COM USER GUIDE

USER GUIDE FOR WAVE PUSH-TO-TALK (PTT) SERVICE

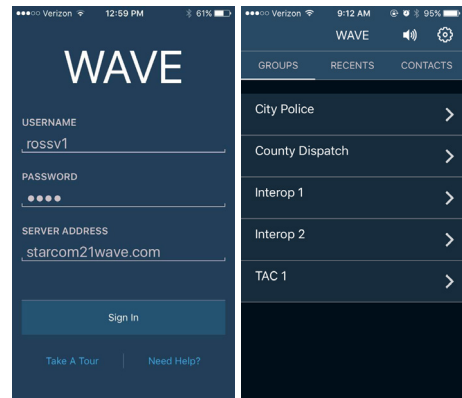
Welcome to WAVE, Motorola Solution's broadband push-to-talk (PTT) service.

WAVE enables teams to collaborate regardless of their device, network connection or geographic location. It supports group and private calls, provides location information and mapping, shows user status and presence, supports group text messaging, and keeps track of call history. Mobile devices can connect with the service using either cellular or WiFi networks. All WAVE communications are fully secure using AES 256 encryption.

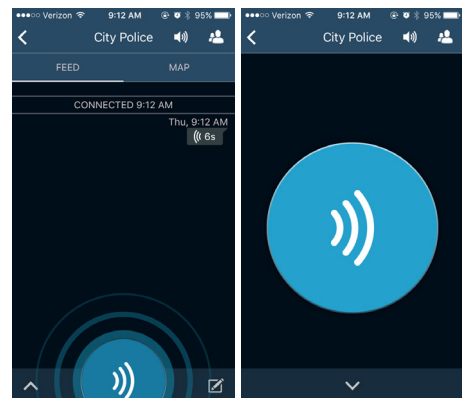
SETTING UP AND USING THE WAVE MOBILE COMMUNICATOR

The following instructions explain how to download, install, configure and use the WAVE Mobile Communicator on your Apple or Android device.

1. Download the WAVE Mobile Communicator from the Google or Apple app stores (search for WAVE Mobile Communicator PTT (5.12+) in the stores). Accept the requested access permissions (all information is strictly confidential).
2. Once installed, run the app, which will present you with the login screen.
3. Tap the **User Name** field and enter the user name given you by your administrator (usually an email address, such as <first initial - last name>, e.g. 'jsmith').
4. Tap the **Password** field and enter the password given you by your administrator (e.g., 'wave123').
5. Tap the **Service Address** field and enter the following server address:
starcom21wave.com. Click the **Sign In** button.



6. When the app first starts you will be on the **Groups** tab, which shows each of the talkgroups to which you have access. When you first sign in to WAVE, the home screen presents the **Groups** tab (along with tabs for **Recents** and **Contacts**). The Groups tab lists all the talkgroups (channels) assigned to your profile. Tap a talkgroup name to communicate with users in that group using push-to-talk (PTT) communications. The display will change to the talkgroup event screen. To communicate on the talkgroup, just press the blue PTT button at the bottom of the screen. Wait for the visual and audio cue that you have been granted the talkgroup "floor" and have permission to transmit (you will hear an audible "chirp," and the blue PTT button will "glow"). Release the PTT button when finished to allow others to speak. To send a text message tap the text icon in the bottom right hand corner of the screen to bring up the texting keyboard. Type your message and tap **Send**. All members of this talkgroup currently signed into WAVE will receive your text message.



NOTE: If the channel is in use, you will hear a "bonk" tone and the PTT button will turn red, indicating someone else is speaking on the talkgroup. Wait a few moments and try again.

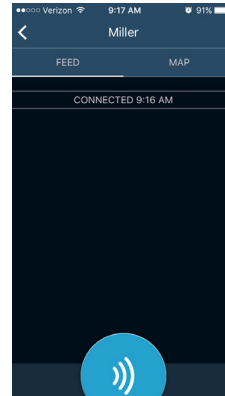
You can tap the up-arrow key at the bottom of the screen to enable the full screen PTT mode. Tap the down-arrow on the PTT button screen to return it to its normal size.

You can mute a channel by clicking the speaker icon to the right of the channel button.

7. You can make a private call using two options:

Option 1: From the **Groups** tab, tap a talkgroup where the person you wish to call is registered. Tap the people icon in the upper right hand corner of the app to see who is currently registered on the talkgroup. Tap the name of the person with whom you wish to have a private call. That member's **Feed** screen will be presented. Press the PTT button to start a private call. PTT back and forth with the person you are calling. When you are done, tap the red icon to hang up the call (the call will also time out after 15 seconds of inactivity by both parties).

Option 2: On the **Home** screen, tap **Contacts** and select a user to call, which will display the member's **Feed** screen. Make a private call as described above..

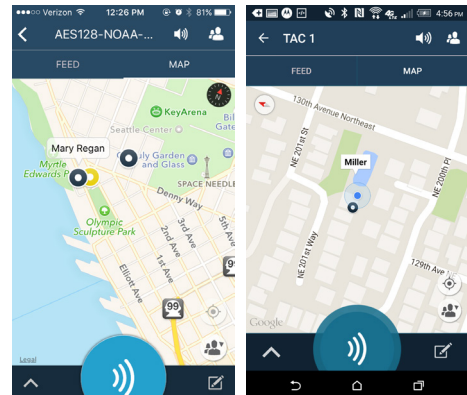


8. There are two ways you can view the location of members on a map. Note that you will see your own location on your maps even if you are not sharing your location with others.

Option 1 - see everyone: Select a talkgroup from the **Groups** tab and tap the **Map** tab to display the map showing the location of all members registered on that talkgroup who are currently sharing their location.

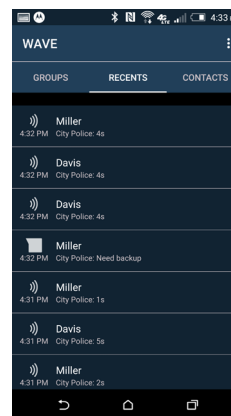
Option 2 - see an individual member: Select a talkgroup from the **Groups** tab, and tap the people icon in the upper right corner to display the **Members** list. Tap a map pin next to a member's name to bring up the map that shows just that user's location. Zoom in or out for greater or lesser detail..

NOTE: You can turn location sharing on/off in the **App Settings** menu. Tap the **Menu** button located in the upper right hand corner of any **Home** screen and tap the **App Settings** menu item.



9. A history of communications during your session is shown on the **Recents** tab as well as in each talkgroup's **Feed** tab, which is always the first screen presented when a talkgroup is selected from the **Groups** tab. The **Recents** tab displays a history of all events on all of your assigned talkgroup as well as any private call you have participated in during this session. The **Feed** tab displays a history of the events for a particular talkgroup. The member's name, time the call was initiated and its duration are displayed for every call. Any text messages are also displayed with the sender's name, the time it was sent, and the content of the message.

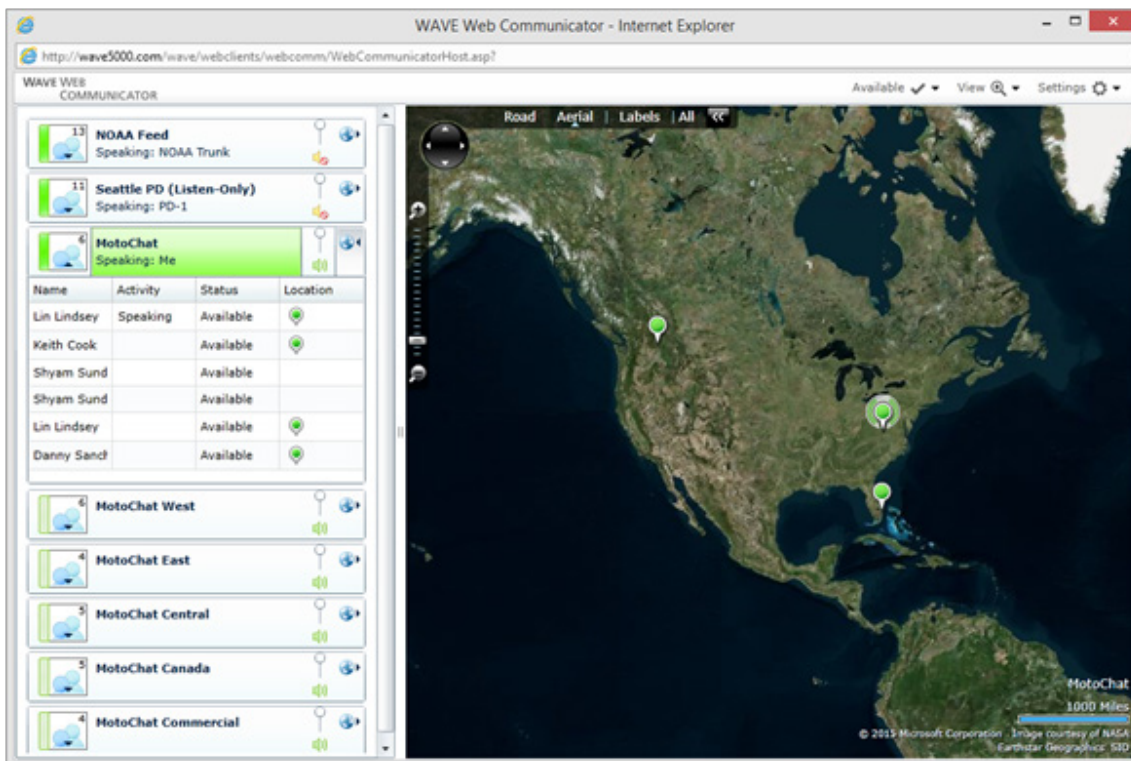
10. To exit the app, go to the **Settings** menu and click **Sign Out**.



SETTING UP AND USING THE WAVE WEB COMMUNICATOR

The following instructions explain how to access and use the WAVE Web Communicator from your PC:

1. Point your web browser to <https://starcom21wave.com/wave/>
2. Click **Login** and enter your user name and password. If asked to select a **Profile**, choose the one assigned to you by your system administrator.
3. Click **Web Communicator**. The application will launch in your browser. The first time you run the Web Communicator you may be prompted to install Microsoft's SilverLight application. If so, please install it.
4. To speak on a channel, simply click and hold the PTT button for the channel / talkgroup you wish to access. Release the PTT button when finished speaking. The Web Communicator supports group calls, private calls are not yet available from the application.



5. To see who is registered on a channel and their status, click the down arrow button beneath **People icon** on the left side of the PTT button.
6. To see where users are located for any channel, click the right arrow on the **Globe icon** on the right side of the PTT button to expand the map panel for that channel.
7. You can change the volume level for each channel and mute channels using the **Volume setting** control next to the map button.
8. Use the **Settings menu** (upper right hand corner) to change your audio settings (microphone, speakers, etc.), set your location that others will see, or change a profile.

GETTING HELP

- Click the **Settings** menu button and select **Help** to get instructions on how to use all the features and functions of the WAVE Mobile Communicator.
- If you require technical support, please contact the STARCOM21 support desk at starcom@motorolasolutions.com or by calling 866-297-6342.

STARCOM21 USER AGREEMENT

THIS STARCOM21 USER AGREEMENT including all Attachments hereto (the “User Agreement”) is made as of _____ (the “Effective Date”) by and between Motorola Solutions, Inc., a Delaware corporation (“Motorola”), and _____ (“User”). No modification, amendment or waiver of any provision of this User Agreement shall be effective unless approved in writing by each of the Parties hereto.

Introduction

In 2001, Motorola and the State of Illinois (“State”) entered into Contract #TCVS1500, as amended January 15, 2005 and as amended subsequently, hereinafter referred to as the “Contract” pursuant to which the State agreed to lease from Motorola, and Motorola agreed to build, own and operate, a statewide, trunked-digital voice radio network for the State. As part of that contract, the parties agreed that the network, commonly referred to as the STARCOM21 Network (“STARCOM21”) had to have the capability of being expanded consistent with the Public Safety Wireless Network for use by other federal, state and local agencies as well as qualified non-governmental entities. The Contract is an indefinite quantity, non-exclusive contract established for the use of State agencies, universities, boards, authorities and commissions (collectively “State Users”), and is also established for the use of federal, county and local governmental agencies and qualified non-governmental entities. The Parties executed a new contract (“STARCOM21 Contract”) in June 23, 2023, which effectually continues the same products and services as provided in the Contract, as well as offers new products and services. All products and services provided herein are subject to the STARCOM21 Contract.

The Parties agree that the User Agreement shall be the vehicle that will be utilized to identify the terms and conditions that non-State Users will agree to in order to be able to access STARCOM21. Motorola is obligated in the STARCOM21 Contract to provide certain levels of performance, and this User Agreement coordinates the rights and responsibilities of the parties in compliance with the STARCOM21 Contract’s performance requirements. The obligations of Motorola to the State in the STARCOM21 Contract take precedence over anything herein.

Pursuant to the STARCOM21 Contract, Motorola is required, under the direction, guidance and oversight of the State, to supervise the day-to-day operations of STARCOM21 and maintain, and oversee, STARCOM21’s performance, coverage, functionality, availability, and reliability requirements. As a result of additional governmental and non-governmental entities utilizing STARCOM21, the State established an Oversight Committee. That Oversight Committee will govern the manner in which STARCOM21 is used by governmental and non-governmental entities. The State and Motorola are required to develop a joint system administration plan for STARCOM21.

NOW, THEREFORE, in consideration of the foregoing and the mutual promises herein contained, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Motorola and User hereby covenant and agree that all the provisions above are hereby incorporated by reference, as if fully set forth herein, and hereby covenant and agree as follows:

1. DEFINITIONS:

ISP: Illinois State Police. The ISP provides common communication channels to county and local law enforcement agencies including VHF frequencies known as “ISPERN” and “IREACH” and its inter-

jurisdictional radio communications known as “HF-4”. STARCOM21 will incorporate and supplement these frequencies by interfacing the frequencies to ISP dispatch consoles.

ISPERN: Illinois State Police Emergency Radio Network is a dedicated VHF high-band radio channel established in 1965 to provide interagency communications capability to municipal, county, State, and Federal law-enforcement agencies to facilitate coordination of operations, wide-area dissemination of criminal or traffic offense information, and officer safety, and shall be integrated with STARCOM21.

IREACH: Illinois Radio Emergency Assistance Channel is a dedicated radio channel, 155.055 MHz, used for coordination of official public-safety activities by State or local agencies, including police, fire, EMS, IEMA, highway maintenance and natural resources, and shall be integrated with STARCOM21.

STARCOM21: Statewide, leased, trunked, digital voice mobile radio system being made available to the State by Motorola in compliance with the features, statewide coverage requirements, system performance, grade of service and reliability and other requirements set forth in the STARCOM21 Contract between Motorola and the State. As part of the STARCOM21 Contract, Motorola is required to deploy, install and commission an infrastructure comprised of at least 169 tower sites or other “high” repeater sites, outfitted with fixed radio and transport equipment. The infrastructure will utilize the radio trunking control protocol conforming to the Association of Public Safety Communications Officials (“APCO”) Project 25 common air interface (“CAI”) standard. Subscriber services and user equipment must conform to APCO P25 standards for functionality, interoperability and construction.

2. ACCEPTANCE

This document, including the preceding clauses and any attachments, will become a contract when accepted in writing by an authorized employee of Motorola and an authorized signatory of the User. It is agreed that services will be provided only on the terms and conditions herein.

3. SERVICES AND USER FEES

3.1 User requests, and Motorola agrees to provide, the additional services at the fees detailed on Attachment A that are unique to User and that do not conflict or limit Motorola’s ability to meet its obligations to the State under the STARCOM21 Contract. The fees do not include any taxes, assessments or duties, all of which will be paid by User, except as exempt by law. User and Motorola understand and agree that User shall load on STARCOM21 the radios specified in Attachment A pursuant to the schedule set forth in that attachment (User may load the specified radios onto STARCOM21 in advance of the schedule with prior written approval of Motorola).

3.2 User understands and agrees that any and all programming of User equipment or other related expenses associated with the service provided to User under this User Agreement shall be the responsibility of and paid for by User. Any incompatibility resulting from equipment provided by User shall be at User’s sole risk, responsibility and expense. Motorola agrees to take no action that would result in programming or reprogramming of User equipment prior to discussing such action with User.

3.3 User specifically acknowledges that Motorola is managing STARCOM21 on behalf of the State and is only authorized to provide access to STARCOM21 in accordance with its obligations under the STARCOM21 Contract. To the extent that any User authorizes Motorola to use its resources in connection with STARCOM21 (e.g. frequencies, towers, sites, etc.) all STARCOM21 Users shall be entitled to use

such resources in connection with their use of STARCOM21, subject to FCC restrictions or authorizations. The provisions of this paragraph 3.3 are subject to the following requirements:

- a. Any expansions of STARCOM21 to accommodate radio communication needs for authorized, non-State users cannot compromise or degrade STARCOM21's functionality and performance, service level (i.e. "Grade of Service"), availability, and radio coverage for existing STARCOM21 Users. Motorola will be required to provide STARCOM21 Users access to any additional working channels or sites deployed to expand STARCOM21 at no additional cost to the State.
- b. Participating STARCOM21 Users that have patching requirements will need to have such requirements reviewed and approved by the Motorola System Manager and, if applicable, the Oversight Committee. Approval of additional patching is contingent on the impact that the patches will have on the Grade of Service for existing STARCOM21 Users.

The use of vehicular repeaters on STARCOM21 is contingent on spectrum availability and will need to be reviewed by the Motorola System Manager and, if applicable, the Oversight Committee.

User further understands certain talk group prioritization of non-first responder public safety users may occur.

4. REGULATORY ISSUES

4.1 It shall be the responsibility and obligation of User to seek all approvals including federal, state, county, municipal or other governmental authority having jurisdiction over User in order to enter into this User Agreement.

4.2 User understands that numerous entities, including, without limitation, public safety users and special emergency users, will utilize STARCOM21.

4.3 User understands that pursuant to Federal Communications Commission (FCC) rules only certain entities are qualified to utilize STARCOM21. User represents and warrants that it will meet all FCC eligibility requirements to utilize STARCOM21 during the term of this User Agreement. User represents, warrants and covenants on the date hereof and throughout the term of this User Agreement that it is, and will remain, qualified to utilize STARCOM21 and that it meets, and will continue to meet, all such FCC eligibility requirements. If for any reason User finds that it is not in compliance with FCC regulations, it shall immediately notify Motorola in writing, (but under no circumstances exceeding 14 days) and outline a course of action to come into compliance within a reasonable period of time.

4.4 User understands and acknowledges that some or all of the licenses pursuant to which STARCOM21 operates are held by governmental and non-governmental entities, who are also Licensees. For purposes of this User Agreement, a Licensee is defined as a qualified governmental or non-governmental entity that owns its own frequencies and agrees to allow those frequencies to be utilized on STARCOM21 by STARCOM21 participants. User acknowledges that all shared transmitter use must be subject to Licensees' control. User understands there may be significant consequences to Motorola and other STARCOM21 Users should access to and use of such transmitters be unreasonably withheld by a Licensee.

4.5 User understands that Motorola and/or the Licensees can discontinue service, remove one or more licenses from STARCOM21, or take any other steps that they reasonably believe are in the best

interests of STARCOM21 or that may be necessary to comply with any federal, state, or local law, order, or directive. Any such action shall not give rise to any claim on the part of User against Motorola or the Licensees. Motorola shall provide written notice to User of any action under this paragraph no less than ninety (90) days prior to taking such action unless otherwise required by law.

5. TERM

5.1 Unless otherwise provided in Attachment A, this User Agreement will remain in full force and effect for a period of one (1) year from the Effective Date. After such one (1) year period, it shall automatically renew for additional one (1) year periods unless either party notifies the other party in writing of its intent not to renew at least ninety (90) days prior to the end of the then current term. Notwithstanding anything contained herein or in Attachment A to the contrary, expiration of the STARCOM21 Contract (CMT2028589) due to the time limit set forth in either: a) the Illinois Procurement Code (30 ILCS 500/20-60 et al.); or b) the contract itself, shall not result in the automatic termination of this Agreement, provided that Motorola and the State enter into a functionally equivalent replacement contract to ensure continuity of services and operation of the STARCOM21 radio system.

5.2 In the event any frequency authorization held by User, Motorola, or any other Licensee under which STARCOM21 operates is revoked by the FCC, then Motorola may elect to terminate this User Agreement without any liability to Motorola or the Licensees, upon written notification from Motorola to User.

6. ASSIGNMENT SUBCONTRACT

User may not assign its rights or delegate its duties hereunder in whole or in part without the express written consent of Motorola. Motorola may assign its rights, delegate or subcontract its duties hereunder in whole or in part consistent with Motorola's obligations under the STARCOM21 Contract, provided that written notice is given to User.

7. ADDITIONAL UNITS

If User is not in default, then at any time during the term of this User Agreement or any renewal period hereof, service will be provided for additional radios ordered by the User. Such services will be invoiced pursuant to Attachment A.

8. COVENANTS OF USER

User agrees (a) to observe and abide by all applicable statutes, laws, ordinances, rules and regulations, including but not limited to those of the FCC, and (b) to operate its radios and any related equipment so as not to cause undue interference with any other users using STARCOM21. Motorola reserves the right to temporarily suspend service to specific radio users subsequent to notification of the user due to harmful interference or disruptive radio use created by such individual user. Any such action shall not give rise to any claim on the part of User against Motorola or STARCOM21 Users. User recognizes that applicable FCC rules and other statutes, laws, ordinances, rules and regulations may change from time to time and that, accordingly, Motorola may propose modifications to this User Agreement to comply with any such changes in FCC requirements, and User shall not unreasonably withhold approval of such changes.

9. COVERAGE

9.1 STARCOM21 coverage prediction is based on the knowledge of the propagation of radio signals and the ways in which they are attenuated as they travel through the atmosphere, over terrain, through trees, around buildings, and around various obstacles. Predicted coverage is dependent on many factors including the following: (1) transmitter power; (2) receiver sensitivity; (3) antenna gains; (4) transmission line loss; (5) antenna height; (6) noise; (7) tree density; (8) buildings; (9) terrain variations; and (10) atmospheric conditions. Coverage is also dependent on user factors including: (1) antenna type and location; (2) radio programming; (3) battery condition of portables; (4) maintenance of the radio; and (5) firmware version.

9.2 User acknowledges that one hundred percent (100%) coverage of any area at all times is improbable. Testing and experience with actual field conditions indicate adverse propagation conditions, such as short-term unpredictable meteorological effects and sky wave interference from distant stations, can interrupt service at any time. Such events are beyond the reasonable control of Motorola and STARCOM21 Users. Other causes beyond the reasonable control of Motorola and STARCOM21 Users include but are not limited to motor ignition and other electrical noise that could be minimized by corrective devices at User's expense.

10. DEFAULT AND REMEDIES

10.1 If (a) User fails to make any payment of any sum due or fails to perform as required by any other provision hereunder, and continues in such failure for fifteen (15) days after written notice has been sent by Motorola to User or (b) User defaults under a System Management Agreement or similar agreement whereby User contracts with Motorola for management services for User's FCC license(s) in conjunction with STARCOM21 and such default continues beyond any applicable cure period, then the User shall be deemed in default under this User Agreement.

10.2 In the event of default by User hereunder, Motorola has the right, at its option, to immediately terminate this User Agreement, retain all payments made hereunder, deny User any service provided by STARCOM21, and impose a separate charge for disconnect and a separate charge for reconnect expenses, each in an amount reasonably determined by Motorola. If disconnect takes place, User may also be subjected to additional costs for reprogramming its equipment in an amount reasonably determined by Motorola and User agrees to immediately pay all such costs. Each and all of the rights and remedies of Motorola hereunder are cumulative to, and not in lieu of, each and every other such right and remedy and every other right and remedy afforded by law and equity. In the event that Motorola determines that it is necessary to exercise the rights above, then Motorola will provide User written notice of its intention to exercise such right and provide ninety (90) days notice prior to the exercise of such right.

11. DISCLAIMER OF WARRANTIES AND LIMITATIONS OF REMEDIES

WITH RESPECT TO ANY EQUIPMENT WHICH MAY BE USED CONSISTENT WITH THIS USER AGREEMENT TO ACCESS STARCOM21 OR ANY SERVICES PROVIDED HEREUNDER, MOTOROLA AND STARCOM21 USERS HEREBY DISCLAIM ALL REPRESENTATIONS AND WARRANTIES, DIRECT OR INDIRECT, EXPRESS OR IMPLIED, WRITTEN OR ORAL, IN CONNECTION WITH SUCH EQUIPMENT (WHETHER PURCHASED OR LEASED BY USER FROM MOTOROLA OR FROM A THIRD PARTY) AND SERVICES, INCLUDING BUT NOT

LIMITED TO, ANY AND ALL EXPRESS AND IMPLIED WARRANTIES OF SUITABILITY, DURABILITY, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE.

12. INTERRUPTION OF SERVICE; FORCE MAJEURE

Notwithstanding any other provision of this User Agreement, neither Motorola nor STARCOM21 Users shall be liable to User or any other person for any loss or damage, regardless of cause, for interruption, delay, or loss of radio service except as described in Section 13 hereof. Motorola and/or STARCOM21 Users do not assume and shall have no liability under this User Agreement for failure to provide, interruption, or delay in providing service due directly or indirectly to causes beyond the control of Motorola and/or STARCOM21 Users or their agents, employees or contractors, including without limitation, matters listed in Sections 8 and 9 herein, results of the rebanding projects, acts of God, acts of a public enemy, acts or failures to act on the part of any third party, acts by civil or military authority, governmental priorities, strikes or other labor disturbances; earthquakes, fires, floods, epidemics, embargoes, war or riot. In the event of any failure or delay attributable to the fault of Motorola, STARCOM21 Users or their agents, employees or contractors, User's sole remedy shall be limited as is more fully described in Section 13 below.

13. LIMITATIONS OF LIABILITY

13.1 User acknowledges that the radio service provided hereunder uses radio channels to transmit voice and data communications and that the service may not be completely private. Neither Motorola, nor Licensees shall be liable to User for any claims, loss, damages or cost that may result from lack of privacy on STARCOM21.

13.2 Neither Motorola, nor STARCOM21 Users shall be liable for any damage, accident, injury or the like occasioned by the use of the radio service or the presence of equipment, including 700 or 800 MHz radio handsets and other devices, facsimile units, and ancillary equipment of User and/or Motorola.

13.3 Neither Motorola, nor STARCOM21 Users shall be liable for any defacement or damage to User's motor vehicle(s) or any personal or real property resulting from the presence of 700 or 800 MHz radio and ancillary equipment.

13.4 NO INDEMNIFICATION SHALL BE PROVIDED HEREUNDER BY MOTOROLA OR LICENSEES.

13.5 EXCEPT FOR PERSONAL INJURY OR DEATH, MOTOROLA'S TOTAL LIABILITY RELATED TO THE SERVICES PERFORMED HEREUNDER, WHETHER FOR BREACH OF CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY IN TORT, OR OTHERWISE, WILL BE LIMITED TO THE DIRECT DAMAGES RECOVERABLE UNDER LAW, BUT NOT TO EXCEED THE PRICE OF THE USER FEES AND SERVICES IDENTIFIED IN ATTACHMENT A WITH RESPECT TO WHICH LOSSES OR DAMAGES ARE CLAIMED (UNLESS LIABILITY IS OTHERWISE DISCLAIMED HEREIN IN WHICH CASE, MOTOROLA SHALL HAVE NO LIABILITY).

13.6 USER ACKNOWLEDGES AND AGREES THAT IN NO EVENT WILL MOTOROLA, OR STARCOM21 USERS HAVE ANY LIABILITY TO USER UNDER THIS USER AGREEMENT FOR LOSSES OR DAMAGES OF ANY KIND RELATED TO ANY EQUIPMENT, INCLUDING WITHOUT LIMITATION, PERSONAL INJURY OR DEATH, PROPERTY DAMAGE, LOSSES OR

DAMAGES IN EITHER CONTRACT WARRANTY, INDEMNIFICATION, NEGLIGENCE, OR STRICT LIABILITY IN TORT, OR OTHERWISE.

13.7 USER ACKNOWLEDGES AND AGREES THAT IN NO EVENT WILL LICENSEES HAVE ANY LIABILITY TO USER UNDER THIS USER AGREEMENT FOR LOSSES OR DAMAGES OF ANY KIND RELATED TO SERVICES PERFORMED HEREUNDER, INCLUDING WITHOUT LIMITATION, PERSONAL INJURY OR DEATH, PROPERTY DAMAGE, LOSSES OR DAMAGES IN EITHER CONTRACT WARRANTY, INDEMNIFICATION, NEGLIGENCE, OR STRICT LIABILITY IN TORT, OR OTHERWISE.

13.8 NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY, ALTHOUGH THE PARTIES ACKNOWLEDGE THE POSSIBILITY OF SUCH LOSSES OR DAMAGES, THEY AGREE THAT NEITHER MOTOROLA, NOR LICENSEES WILL BE LIABLE FOR ANY COMMERCIAL LOSS; INCONVENIENCE; LOSS OF USE, TIME, DATA, GOODWILL, REVENUES, SAVINGS, OR PROFITS; OR OTHER SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO OR ARISING FROM THIS USER AGREEMENT, THE EQUIPMENT, OR THE PERFORMANCE OF SERVICES PURSUANT TO THIS USER AGREEMENT.

13.9 No action for contract breach or otherwise relating to the transactions contemplated by this User 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.

13.10 User does not waive any of its protection under the Local Government and Governmental Tort Immunity Act.

14. NOTICES

Any notice or demand required or permitted to be given or made hereunder shall be given or made by certified or registered mail to the addresses shown immediately below the signature of the parties' signatory to this User Agreement.

15. WAIVER

Failure or delay on the part of any party to exercise any right, remedy, power or privilege hereunder shall not operate as a waiver thereof. A waiver, to be effective, must be in writing and signed by the party making the waiver. A written waiver of a default shall not operate as a waiver of any other default or of the same type default on a future occasion.

16. GENERAL

In the event of a conflict between the obligations of Motorola to User under this User Agreement and the obligations of Motorola to the State under the STARCOM21 Contract, the obligations of Motorola to the State will take precedence over those to User hereunder. No modification or amendment of this User Agreement, including any attachments hereto, shall be valid unless made in writing and signed by the parties hereto. This User Agreement constitutes the entire agreement of the parties related to the subject matter hereof and shall supersede all prior offers, proposals, negotiations and agreements, except where incorporated into or referenced by this User Agreement. If any provision of this User Agreement or the application thereof to any person or circumstance shall, at any time or to any extent, be invalid or

unenforceable, the remainder of this User Agreement shall not be affected thereby. This User Agreement is exclusively for the benefit of the parties hereto and STARCOM21 Users and shall, under no circumstances, be deemed to benefit any other party whatsoever except STARCOM21 Users. This User Agreement shall be construed in accordance with and governed by the laws of the State of Illinois. All of the Sections in this User Agreement shall survive the expiration or termination of this User Agreement for any reason, with the exception of the following: Sections 1, 2, 5, 6 and 7.

IN WITNESS WHEREOF, User and Motorola, by and through their authorized representatives, have made and executed this User Agreement.

MOTOROLA

MOTOROLA SOLUTIONS, INC., a Delaware corporation

By: _____
Printed Name: _____
Title: _____
Date: _____

Address
Motorola Solutions, Inc.
Attn: Commercial Counsel
Motorola Solutions Law Department
500 West Monroe, 43rd Floor
Chicago, IL 60661

Copy to:
Motorola Solutions, Inc.
Attn: STARCOM21 System Manager
2100 Progress Parkway
Schaumburg, IL 60196

USER

By: _____
Printed Name: _____
Title: _____
Date: _____

Address

ATTACHMENT A

**ATTACHMENT A
TO
STARCOM21 USER AGREEMENT**

THIS ATTACHMENT A TO THE USER AGREEMENT sets forth the STARCOM21 management services to be provided by Motorola and the fees for those services.

STARCOM21 Management Services

Motorola shall perform the following STARCOM21 management services:

- Shared Access, Maintenance, and System Upgrades of the Motorola Owned Master Site – Master Switching Office (Zone Controller).
- 24x7 Maintenance of the Motorola Owned RF Site Infrastructure.
 - On-site Response
 - Depot Repair
 - Remote Monitoring
 - HVAC Maintenance (of STARCOM21 sites)
 - Generator, Battery, UPS Maintenance (of STARCOM21 sites)
 - Generator Fuel
 - Antenna System Maintenance
- Telco Leased Line – Site Connectivity
 - Motorola will provide connectivity to the STARCOM21 sites.
- Software Maintenance
 - Motorola will provide a Software Subscription Agreement (SSA) as part of the Annual Fee (as defined below). The SSA includes software and hardware upgrades only to Motorola owned STARCOM21 infrastructure.
 - Motorola agrees not to make any software or hardware changes to the Master Switch Office which would require upgrades to the User infrastructure without advance notification to User.

Any services not specifically set forth above shall not be provided by Motorola, including, but not limited to the following:

Device hardware maintenance

- Any software or hardware upgrades that may be required to the User owned infrastructure, device or radio units.
- The devices will be loaded on STARCOM21 in accordance with the following schedule:
_____.

Fees

The initial monthly fee for STARCOM21 management services shall be calculated as follows: the number of devices loaded on the system multiplied by \$ _____ (“Monthly Fee”). The parties have agreed that initially there will be _____ devices loaded on the system. The initial annual fee shall be the monthly fee multiplied by twelve (12). The monthly fees will be invoiced Net 30. There shall be no airtime charges (i.e., roaming) assessed. User will be invoiced on a monthly basis in advance of the period of service. Payment will be due net thirty (30) days after date of invoice. All fees are subject to increase based upon the terms of the STARCOM21 Contract. The STARCOM21 management services will increase at times and amounts as set forth in the rate schedules on the STARCOM21 Contract.

Additional Terms and Conditions to the User Agreement

Any information or data in the form of specifications, drawings, reprints, technical information or otherwise furnished to User under this User Agreement will remain Motorola’s property, will be deemed proprietary, will be kept confidential, and will be promptly returned at Motorola's request. User may not disclose, without Motorola's written permission or as required by law, any confidential information or data to any person, or use confidential information or data for any purpose other than performing its obligations under this User Agreement. Unless otherwise agreed in writing, no commercial or technical information disclosed in any manner or at any time by User to Motorola will be deemed secret or confidential. Motorola will have no obligation to provide User with access to its confidential and proprietary information, including cost and pricing data. This User Agreement does not grant directly or by implication, estoppel, or otherwise, any ownership right or license under any Motorola patent, copyright, trade secret, or other intellectual property, including any intellectual property created as a result of or related to the services performed under this User Agreement. This Section shall survive the expiration or termination of the User Agreement.

The term “STARCOM21 Contract” shall include any and all amendments, revisions or replacements thereof as may now exist or be agreed upon from time to time by Motorola and the State.



STARCOM21 NETWORK

STARCOM21 Radio Service – Information Form

Billing :

Agency Name: _____

Address (Mailing): _____

Address (Physical): _____

City: _____ County : _____ State: ____ Zip Code: _____

Billing Cycle: Monthly __ Quarterly __ Annually __

Email Address for Invoice _____

Notification for Contract Purposes:

Contact Person: _____

Phone Number: _____ Cell: _____

E-Mail: _____

Notification for Scheduled and Non-Scheduled Maintenance:

During Business Hours: Contact Name: _____

Phone Number: _____ Cell: _____

E-Mail _____

After Business Hours: Contact Name: _____

Phone Number: _____ Cell: _____

E-Mail: _____

Person(s) responsible for assigning IDs for agency:

Name(s) _____ Phone Number: _____

Agency _____

Personnel Authorized to make changes on your account:

Name of Person Completing Form Title Signature & Date