



State of Ohio MARCS
Multi-Agency Radio Communications System

Steering Committee Meeting
August 23, 2018





Moving from a Project to a Program

- Defined processes and documented them
- Invoked LEAN
- 3-month wait for IDs. This has been improved to less than 24 hours
- Vendor on-boarding processes defined. Using technology to improve both end user and MARCS duties. Has resulted in improved operations for both
- Redefined MARCS responsibilities – we're a radio program, not IT.



Moving from a Project to a Program

Began utilizing

- OIT storage
- Virtual environment
- Backup
- On-boarded to state's security for AV, patches and more
- Domain migration
- Cisco, VMWare, VoIP, ServiceNow maintenance savings



Moving from a Project to a Program

- The personnel and dollar savings from utilizing shared services allowed us to dedicate our resources to focus on communications for Ohio's first responders
- The result has been improvements to the system and improved operations
- Need to evaluate ROI for extending services (County level CAD/RMS for example)

Moving from a Project to a Program

Assessment study. Looking at the operations and functionality of MARCS overall. We are using the recommendations to continue to streamline operations.

Using the previously mentioned IT positions, we implemented recommendations such as updating job descriptions to redefine staff positions, enabling us to get back to our core function.

Much less reliance on contracted employees.



New Challenges



Grant Issues

- Interoperability is with the largest system available to an agency
- P25 letter from Homeland Security (SAFECOM and NCSWIC) to all State Administrative Agency (SAA) about grants running through SWIC
- Ohio Development Services Agency (DSA) grants
- Added costs to MARCS from grants



Radio Sales to Private Entities

Due to revenue generation limitations of the tax exempt bonds Ohio used to fund many projects, we are restricted in subscribing private users.

Shops know to check with us before quoting sales to a private entity. This includes Federal agencies (FBI, DEA, IRS...)



Successes

MARCS visions and planning from the SIEC delivers

- Pagers – There are now 1,486 P25 pagers on MARCS supporting agencies wanting out of the pager as well as radio business such as volunteer fire departments.



Successes

Held first annual radio shop meeting on April 26th

- Attended by all manufacturers and their shops, even from Pennsylvania, Indiana, West Virginia
- Introduced MARCS personnel, policies, and program initiatives, bringing them on the team



Successes – Rick’s Roofing Quotes

- P25 compliance allows different radio vendors operating on system, resulting in radio costs being driven down
- Shops for all manufacturers are listed on our web site
- Vendors have provided training and equipment
- RRQ was used successfully in Springfield – Paul Hicks
- Upcoming “Radio Rodeo” at the October 31st SIEC at Fire Marshal’s facility



Successes – Rick’s Roofing Quotes

COMPETITION IS WORKING!

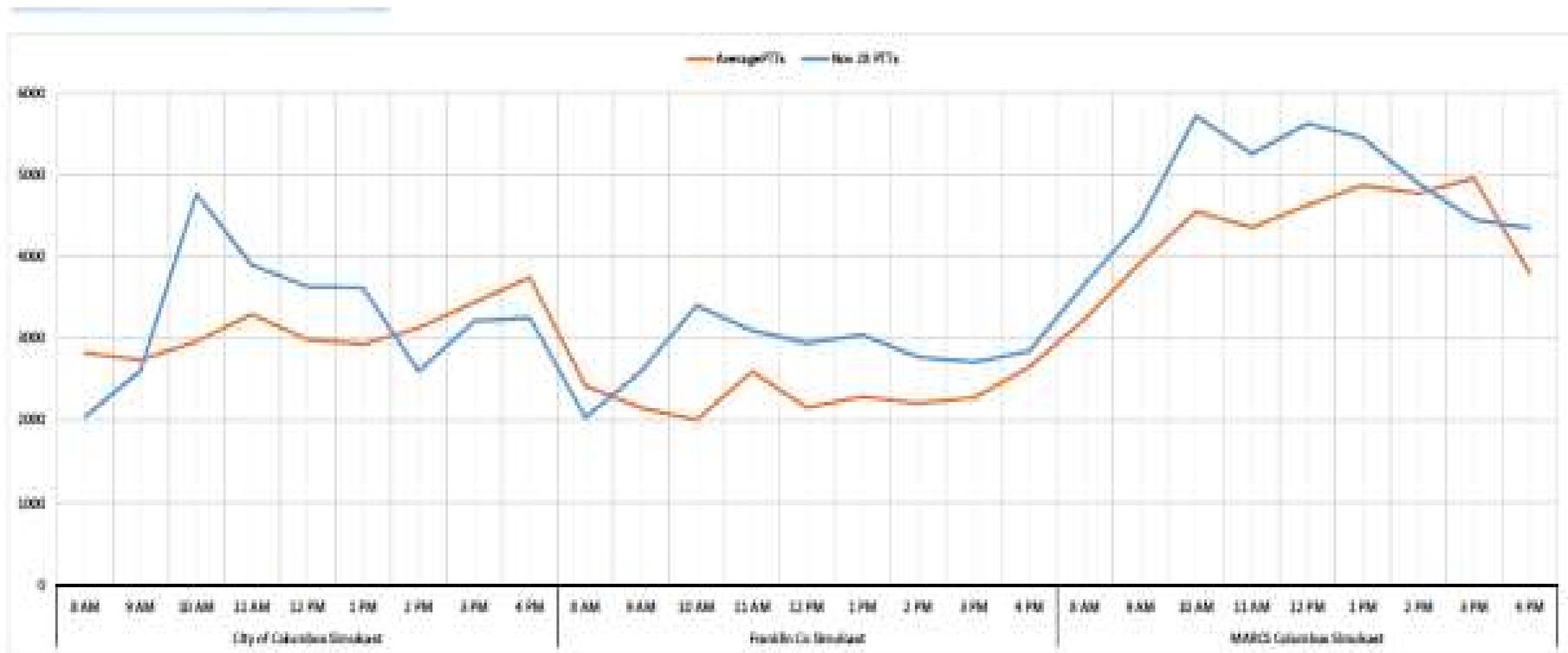
Portable Radio	2013	2014	2015	2016	2017	2018
EF Johnson	0%	0%	2%	4%	13%	8%
Harris	0%	0%	1%	1%	5%	11%
Kenwood	0%	0%	1%	1%	5%	13%
Motorola	100%	100%	95%	94%	72%	67%
Relm	0%	0%	0%	0%	1%	1%
Tait	0%	0%	0%	0%	2%	0%
Thales	0%	0%	0%	0%	0%	0%





Successes - Ohio State University Incident

Monday, November 28, 2016





Public University Table Top Exercise

Monday, February 12, 2018

In conjunction with Federal Homeland Security, Office of Emergency Communications' Interoperable Communications Technical Assistance Program, the Universities of Ohio Interoperable Communications TTX took place on February 12, 2018 at the University of Cincinnati and included 76 participants from 34 local, regional, state, and federal agencies, including 9 universities.

Quote from the conclusion of a 68 page "After Action Report and Improvement Plan":

The Universities of Ohio Interoperable Communications TTX was an important step toward increasing and improving communications interoperability throughout the Ohio University campuses in preparation for horrific but inevitable incidents. The findings in this report are based directly on the observations expressed by the local, state, and federal agencies that participated in the exercise, feedback from TTX players, and Hotwash discussions. By continually assessing progress and making improvements, Ohio universities and supporting agencies will continue to excel in their dedication to disaster preparedness and their mission to achieve an optimal level of interoperable communications for the State of Ohio. Their efforts to date have been exemplary and will serve the area admirably for years to come.



FirstNet

The Governor opted in to the FirstNet program in November 2017. AT&T is responsible for providing the promise of FirstNet, a national public safety grade network and will discuss in more detail later in the agenda.



State of Ohio MARCS
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Jennifer Allwine

MARCS Business Office Manager





Moving from a Project to a Program

- Fiscal Oversight and Compliance
 - Consolidated all legacy inventory systems into ServiceNow
 - Reconcile all devices listed in ServiceNow to Motorola PM
 - Device ID and Serial number pairing compliance
 - Ensure all device IDs are invoiced within 60 days of activation
 - State Annual or Quarterly Fiscal Terms (July-June) or (July, October, January, April)
 - Secure Service Subscription Agreements for all MARCS customers
 - Ensure that all requests are initiated by the agency end-user with signing authority
 - Proof compliance annually with Auditor of State



MARCS Financial Oversight Teams



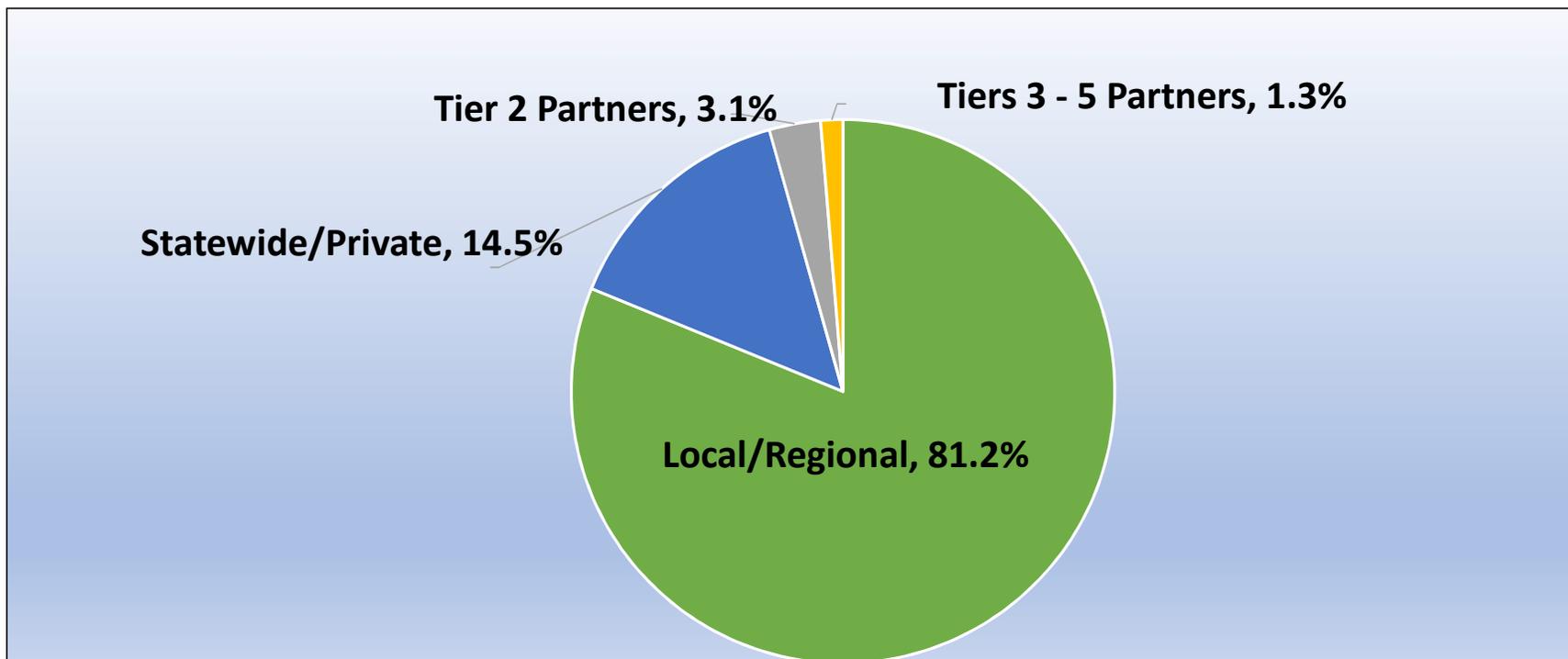
Device Management
(Jack Haueisen & Lance Johnson)



Subscriber Management
(Tamara Byers & Lori Malinovsky)

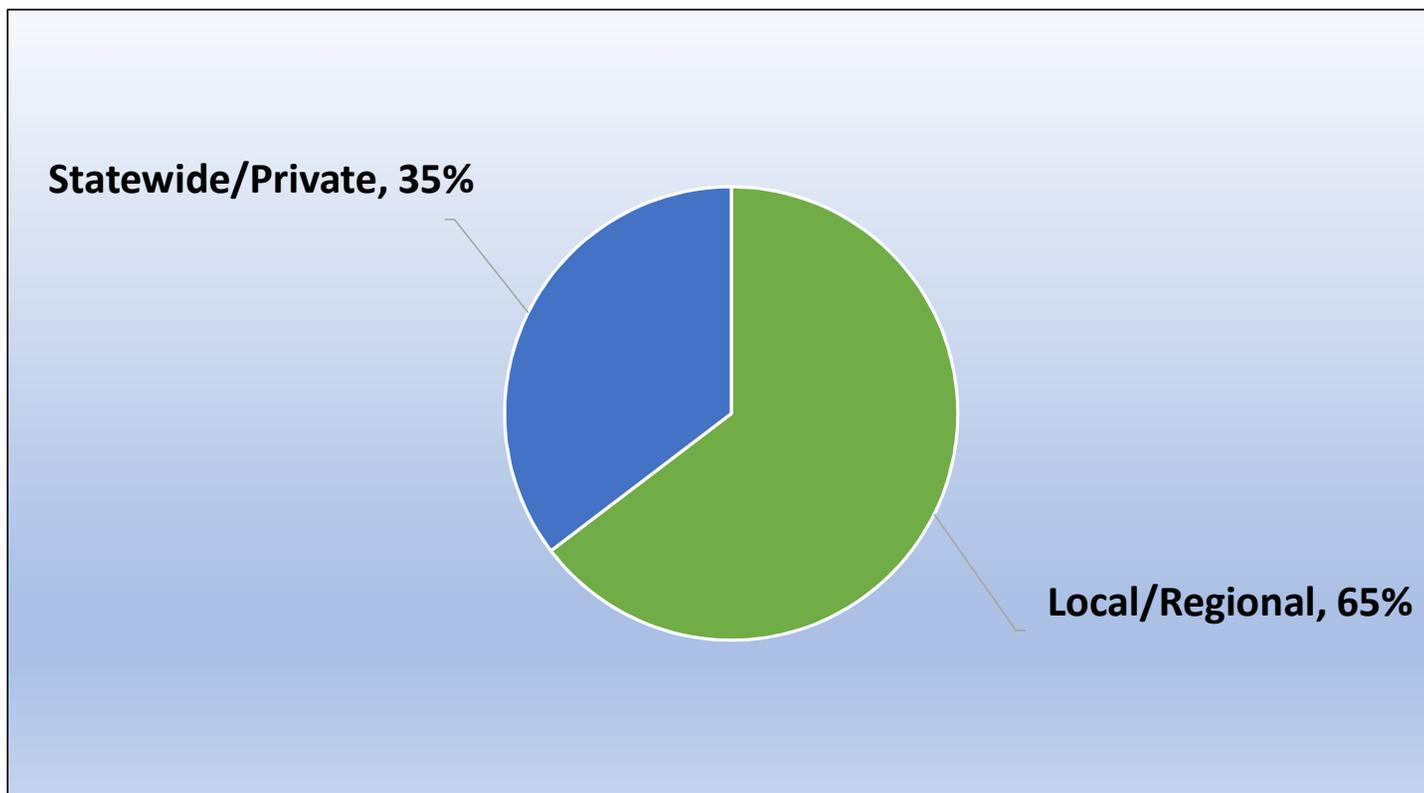


MARCS FY18 Subscriber Mix





MARCS FY18 Revenue



FY18 Growth

- 21% Overall
- 43% with Local/Regional Subscribers



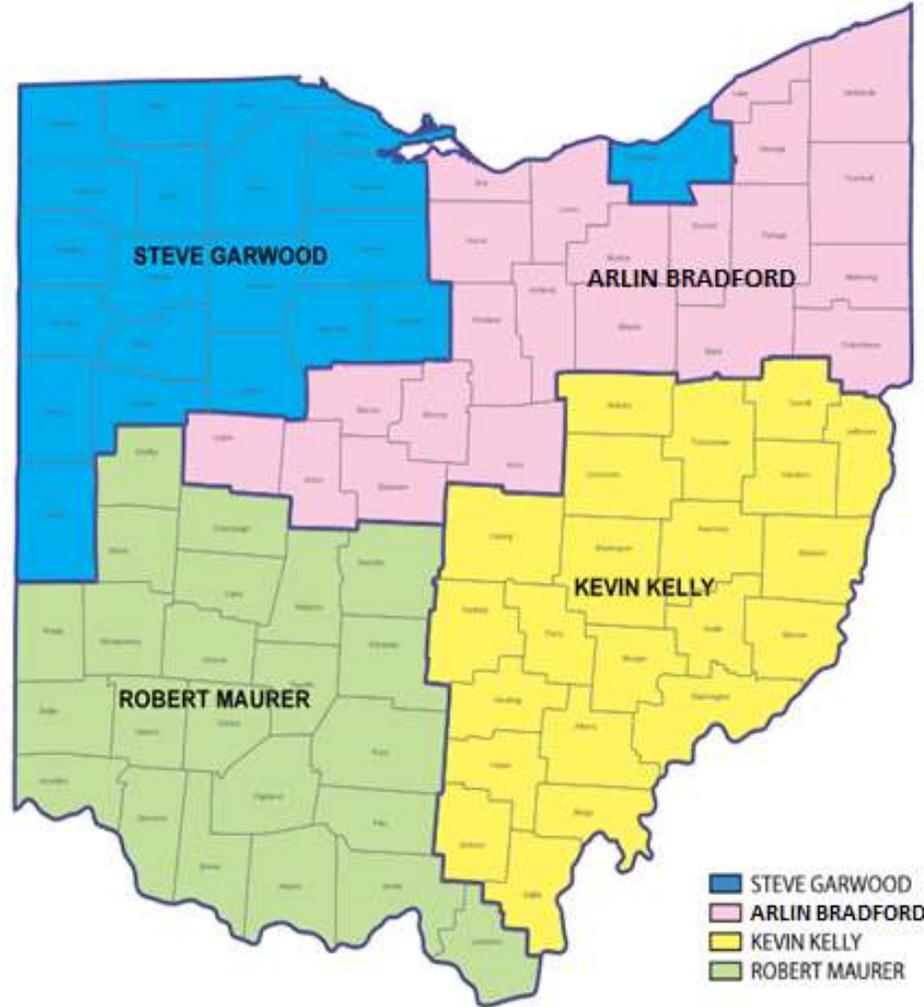
State of Ohio MARCS
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Tom Bretthauer

MARCS Data Systems Manager



OHIO MARCS RADIO TECHS



Other MARCS Staff

Frequency Coordinator

Bob Bill

Voice Engineer

Tony Mans

Database Management

Mike Carillon

Infrastructure Specialist

Sean Kelly



Services

Computer Aided Dispatch

Matt McLaughlin and Jackie Miller

Mobile Data Terminal

Matt McLaughlin/Jackie Miller

Records Management

Jason Mathias



MARCS System Key(s)

Agency Owns and holds the key(s)

- Shop uses the agency key(s)

MARCS Key Pool

- Shop can request key(s) for project based use.
- Keys will be set up for each specific project. (Range and Time limited)

State Code Plug

- State programmers write files and email to field tech for loading



MARCS Code Plug(s)

Verified Settings

- MARCS Required Base Code plug
- Talk Group names **Required** to match what is in the PM

Reduces Troubleshooting

Submitting Code Plugs - Required



Interstate Interoperability

Indiana

Pennsylvania

West Virginia

Kentucky

Michigan





State of Ohio MARCS
Multi-Agency Radio Communications System

Jason Kirby

MARCS Network Administrator/
Operations Center Supervisor
LEADS TAC



MARCS Helpdesk and NOC



MARCS Helpdesk / NOC:

- Manned 24/7
- Monitors entire system as well as sites
- Staff utilizes Service Now for ticketing and incident management
- Preventative Maintenance scheduling



Use of Service Now during Mt. Vernon Site Flooding

JH Joseph Hogan



JH Joseph Hogan

11:33am Adam with T&B is on site

JH Joseph Hogan



PG Patrick Gant

Bobby of BNC 614-981-3385 called stating that the gravel driveway along with the site is under water from the front entrance. Bobby was got waist deep as he approached the front entrance. He says the water is approx. 4ft deep. He's going to the Mt. Vernon Police to see if they know another way to get to the shelter.

2017-11-19 01:25:10

RT Rick Thacker

Bobby from B&C is enroute.

2017-11-18 22:07:26

RT Rick Thacker

Incident state: Customer Responded: was Assigned (Individual)

2017-11-18 22:07:26

S system

ES Email sent
 Subject: Incident INC1462796 Created: DAS - Site is down - Mt. Vernon
 From: State of Ohio
 To: Rick.Thacker@dass.ohio.gov
[Show email details](#)

2017-11-18 21:43:02

RT Rick Thacker

Agile states that they can see their equipment. Whole site appears to be down. Nothing showing in IIS.
 Motorola # 2575710

2017-11-18 21:42:45

JH Joseph Hogan



MARCS Deployable Assets - Cache Radios and TOW's (Tower On Wheels)

- 200 Cache Radios with accessories
- 3 – TOW's
- 7 - Towable generators

MARCS April 2018	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
XECOMM 07	Colu			GENR																EMA										
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TOW 1																														
TOW 2																														
TOW 3																														
HPC Cache Kit #1																														
HPC Cache Kit #2																														
HPC Cache Kit #3																														
HPC Cache Kit #4																														
HPC Cache Kit #5																														
HPC Cache Kit #6																														
Northern Cache Kit #1																														
Northern Cache Kit #2																														
Northern Cache Kit #3																														
Northern Cache Kit #4																														
Northern Cache Kit #5																														
Northern Cache Kit #6																														
GEN 1 (30 KW)																														
GEN 2 (30 KW)																														
GEN 3 (30 KW)																														
GEN 4 (30 KW)																														
GEN 5 (30 KW)																														
GEN 6 (30 KW)																														
GEN 7 (35 KW)																														

Reserved
 Surface Road
 In Use
 Standby
 Out of Service



Contacting the Helpdesk; 866-OHMARCS

- Incident immediately needing a TOW, radios, or generator
- Reserving a TOW, radios, or generator
- Reporting an outage
- System status
- Reporting a maintenance need (Strobe, HVAC, weeds, etc)
- Verify a customer device RID





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Dick Miller

MARCS Field Operations Manager
COM-L

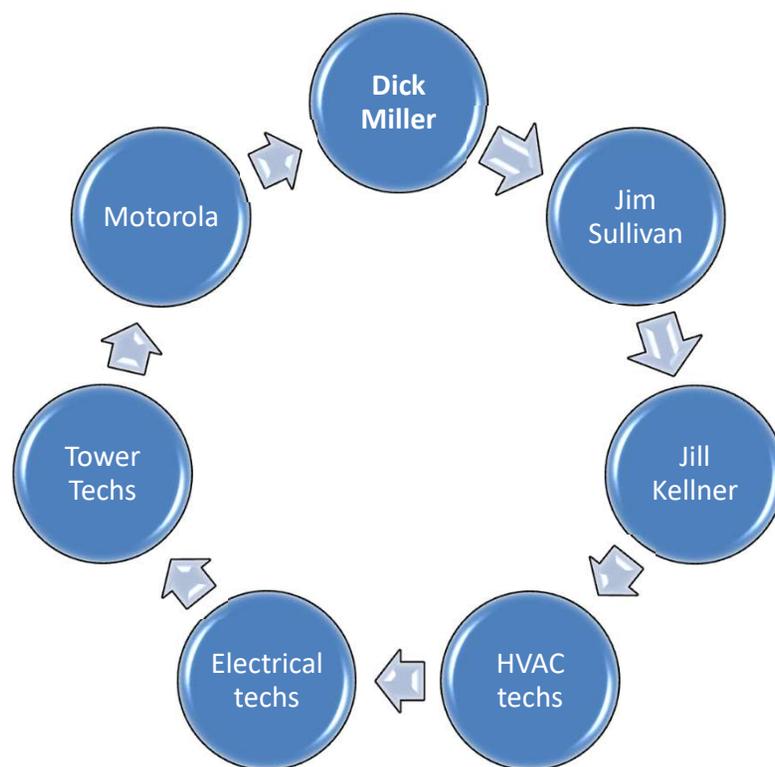


- Three TOWs
- 80-ft Tall
- Emergencies
- Events
- 190 Cache Radios.
- A Call Away





MARCS Tower Team





Site Utilization Summary

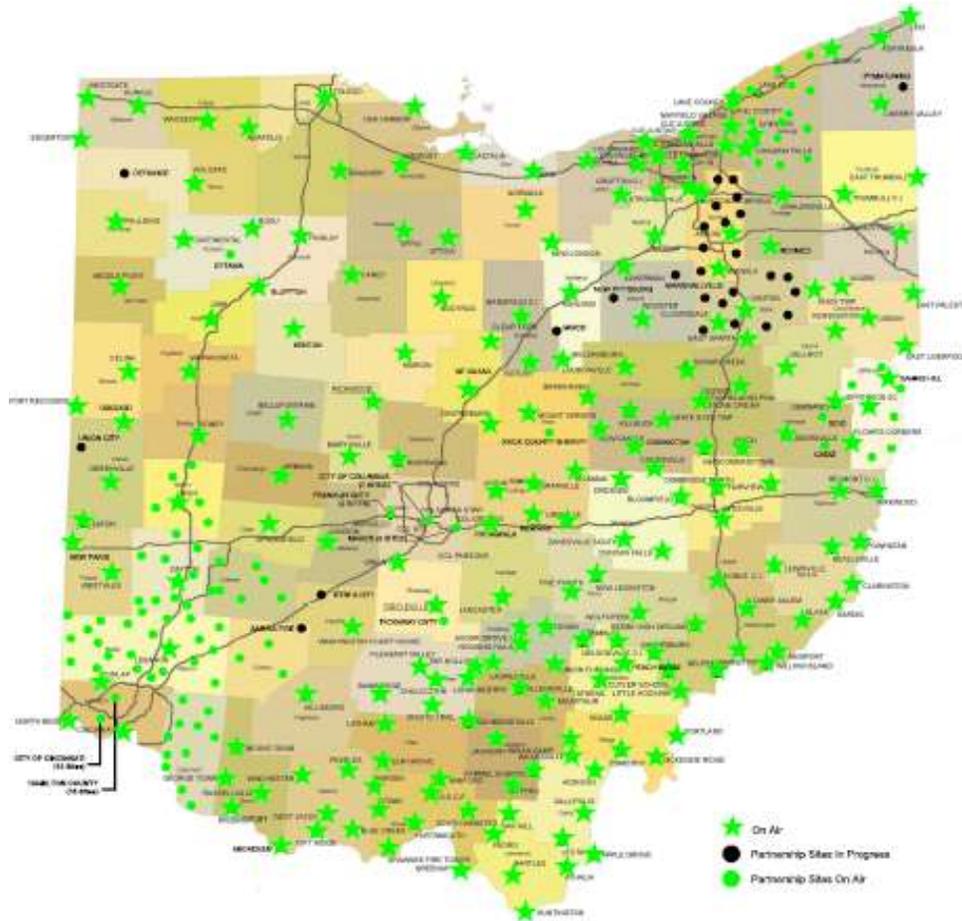
5/25/18 – 5/28/18

GOS < 98% for 25% or more of total period

GOS < 98% for up to 15% of total periods

Site	Channels	PTTs	Busies	Air Minutes	Busy Seconds	GOS Range % of Total Periods				
						< 90%	90-95%	95-98%	98-100%	100%
Friday - All Sites Combined Totals		2,537,868	227	218,360	389	0.0%	0.0%	0.0%	1.0%	99.0%
Saturday - All Sites Combined Totals		2,154,636	88	187,514	180	0.0%	0.0%	0.0%	0.08%	99.92%
Sunday - All Sites Combined Totals		2,011,316	75	174,859	148	0.0%	0.0%	0.0%	0.08%	99.92%
Monday - All Sites Combined Totals		2,004,112	90	175,288	235	0.0%	0.0%	0.01%	0.09%	99.90%
4-Day Total for All Sites		8,707,932	480	756,021	952					
			0.00551%		0.00210%					

MARCS Sites



MARCS Provides:

- Interoperability
 - Reliability
- Portable In-Street Coverage
- 99.5% State-Wide Mobile
- Partnerships



Partnerships

- Tuscarawas County
- City of Warren
- Trumbull County
- Summit County
- Stark County
- Defiance County
- City of Springfield
- Paulding County



Questions?

