



DOWNSTREAM IMPACT OF P₂₅

AREAS OF IMPACT

- End User Equipment:
 - Mobile/Portable Radios (Slides 6-8)
 - Desktop/Dispatch backup radios
 - No direct replacement
 - Harris working on a networked solution
- Inside of Buildings:
 - Might need upgrades or replacement of equipment/devices which expand coverage into buildings
 - BDA's, Antennas (Internal/External), Cabling, Splitters, Polyphasers, etc.
 - Certificate Of Occupancy
 - System requirements will be different and thus might require changes to the following:
 - Existing systems
 - Statutes/Building Codes
 - Inspectors and entities impacted by revisions notified of changes
 - LTE/WiFi has the capability to mitigate some of these issues
 - Access points and network issues will need to be addressed

AREAS OF IMPACT (CONT.)

- Over The Air Programming (OTAP):
 - Access points and network issues will need to be addressed
- Over The Air Rekeying (OTAR)
 - Management of Access to encrypted Talk Groups

THINGS TO CONSIDER

- Based upon our estimated completion times for the system upgrades we are recommending all end user equipment upgrades be completed before 30 June 2025
- Prioritization of equipment purchases:
 - Portable (Handheld) Equipment
 - Majority of users on the system
 - Mobile (Vehicle) equipment
 - Harris agreed to provide Installation for an additional cost as part of the contract
 - Not fully implemented
- Desktop equipment
 - No direct replacement as previously discussed

THINGS TO CONSIDER (CONT.)

- Recommend the XL radios vice XG radios for Public Safety
 - XG radios:
 - Only guaranteed support for 1 years after contract
 - Have a System Capacity Issue which will impact traveling out of the area
 - XL Radios
 - Easier to program
 - Have more capabilities
 - Easier to use
- There have been discussions that, in the future, Agencies will be encrypting their main Talk Groups on P25
 - Encryption Features are included in our contract for most, but not all, of our newly purchased radios
 - Legacy radios will need to be evaluated and most likely need additional feature upgrades
 - Another impact to your cost/benefits analysis

RADIOS THAT WILL NOT WORK ON P25 SYSTEM

Portable Radios

300P (1)
700P (1)
P7100 (1)
P5100 (1)
P5300 (1)
P5400 (1)

(1) Discontinued Item

Mobile Radios

500M (1)
Orion (1)
M7100 (1)
Jag 725M (1)
M3300 (1)

RADIOS THAT
WILL WORK ON
P25 SYSTEM
(NOT
RECOMMENDED)

- Must be evaluated for proper features
- Cost/Benefit analysis should be performed of upgrade vice replacement
- Soon to be discontinued?

Portable Radios

P5500 (1,2)
P7300 (1,2)
XG-100P (1,2)

Mobile Radios

M5300 (1,2)
M7300 (1,3)
M7200 (1,2)

- (1) Feature upgrades could be costly and discontinued support likely in the near future
- (2) End of Life – No longer supported
- (3) Harris has replacement deal to replace with XG-75M

RADIOS THAT WILL WORK ON P25 SYSTEM

- Must be evaluated for proper features
- Cost/Benefit analysis should be performed of upgrade vice replacement

Portable Radios

XG-75P (1,2,3)
XG-75Pe (1,2,3)
XL-185P
XL-200P

Mobile Radios

XG25M (1,3)
XG-75M (1,3)
XL-185M
XL-200M

- (1) Feature upgrades could be costly
(2) Near End of Life/End of Life – Soon to be/No longer supported
(3) System Capacity issue

Note: There is an agreement in place with Harris as part of the contract for a certain number of feature upgrades. Values/Distribution Pending

CURRENT NUMBERS

- Based on our MCM database
- Numbers include a mix of Portable/Mobile units

Note: M7300 radios were not always differentiated from XG-75M radios.

AGENCY	TOTAL	XL	XG	Non-X	M7300/5300	Spare/No LID/UID
Air National Guard Fire	64	23	8	33	0	36
Airport	313	4	261	43	5	31
NLTFPD	158	1	37	116	4	60
PLIC - DEM	70	5	29	36	0	37
REMSA	42	12	1	28	1	14
RSIC Fire	24	0	13	10	1	8
RSIC Police	41	8	3	29	1	0
RSIC	4	0	2	2	0	2
Reno Dispatch	19	0	10	9	0	7
Reno Fire	476	16*	394	66	0	69
Reno Police	780	0	626	51	103	196/181
Reno NPS	275	153	21	101	0	203/31
Reno Radio Shop	16	1	5	9	1	15
Sparks City - NPS	56	0	3	53	0	32
Sparks Fire	303	0	155	146	2	138
Sparks Police	299	11	191	88	9	36
TM Fire Protection District	489	1	262	117	72	130/128
TMWA	123	0	91	32	0	21
UNR Lawlor Events Center - Administration	1	0	0	1	0	0
UNR Police	16	2	44	60	10	41
WCSD Operations	1066	0	526	467	73	462/207
WCSD Police	129	11	43	75	0	58/56
WCSD	175	0	42	133	0	34
Sierra Fire	1	0	0	1	0	0
IVGID	5	0	4	1	0	0
Sparks Dispatch	7	1	0	6	0	0
Department of Veterans Affairs	49	25	23	0	1	26
PLIC - Police	55	0	31	23	1	9
RSIC Health	8	0	7	0	1	0
Nevada Air National Guard	12	0	0	12	0	0
* VHF Only						



WASHOE COUNTY

Integrity Communication Service

www.washoecounty.us

STAFF REPORT

MEETING DATE: January 15, 2021

DATE: Monday, January 11, 2021

TO: P25 Joint Operating Committee

FROM: Don Thornberry, Washoe County Radio Shop
dthornberry@washoecounty.us

THROUGH: Quinn Korbolic, Interim Chief Information Officer, Washoe County Technology Services

SUBJECT: An Informational update and discussion on the impacts of the implementation of the P25 Nevada Shared Radio System to legacy radio equipment currently in use by P25 member agencies.

SUMMARY

Implementation of the Washoe County Regional Communication System P25 Radio system may impact the use of end user equipment. Some legacy radio equipment may not operate correctly or not operate at all on the P25 system. The list below summarizes the possible impacts identified by Washoe County staff. It is recommended that if end-user agencies utilize any of the equipment listed below, the agencies should investigate the equipment's ability to operate on a P25 radio system or replace with P25 compatible equipment.

- 1) In building coverage
 - a. BDA (700/800MHz)
 - b. Distributed Antenna System (700/800MHz)
 - i. Antennas, Splitters, Taps
 - c. Doner Antenna(s) (700/800MHz)
 - d. Polyphaser(s) (700/800MHz)
- 2) Non-P25 capable or Discontinued radios
 - a. Mobile
 - i. 500M, 725M, Orion, M7100, M3300, M7200
 - b. Portables
 - i. 700P, P7100, LPE-200, P5400, P5300, P5100, P7200, Unity XG-100P
- 3) P25 capable radios
 - a. Not Featured correctly for P25
 - b. There is a portion of the contract that covers upgrades however WCRCS Users need to discuss how to implement it.
- 4) Mobile Radios
 - a. Passive DC Noise filter must be removed for P25 operation per TAC

AGENDA ITEM # _____

- i. TSM 7/1/20 Vol: 42 Number: 06
 - b. Potential noise issues on EDACS until cutover
 - i. TSM recommends DC-to-DC converter as possible replacement (Link in TSM)
- 5) Desktop or Dispatch Backup radio
 - a. Donor Antenna (700/800MHz)
 - i. No longer required to be directional
 - ii. Exploring options
 - b. Remotes
 - c. Desktop Cabinet/Station
 - i. There is no direct replacement for the DCS/DDC-100 configuration. CS-7000 can be used in certain configurations or circumstances.
 - ii. Exploring other options
 - d. Polyphaser(s) (700/800MHz)
- 6) Antenna cabling if required due to age/wear & tear
- 7) OTAP via WC WiFi?
 - a. Access point in various locations?
 - b. Access to VIDA network for WiFi?
 - i. Will do experiments to determine
- 8) Things to consider/be aware of
 - a. Drop dead date for changes 30 June 2024
 - b. Should be looking at XL radios vice XG radios
 - i. XG radios only guaranteed support for 7 years after contract
 - ii. Easier to program
 - iii. More capabilities