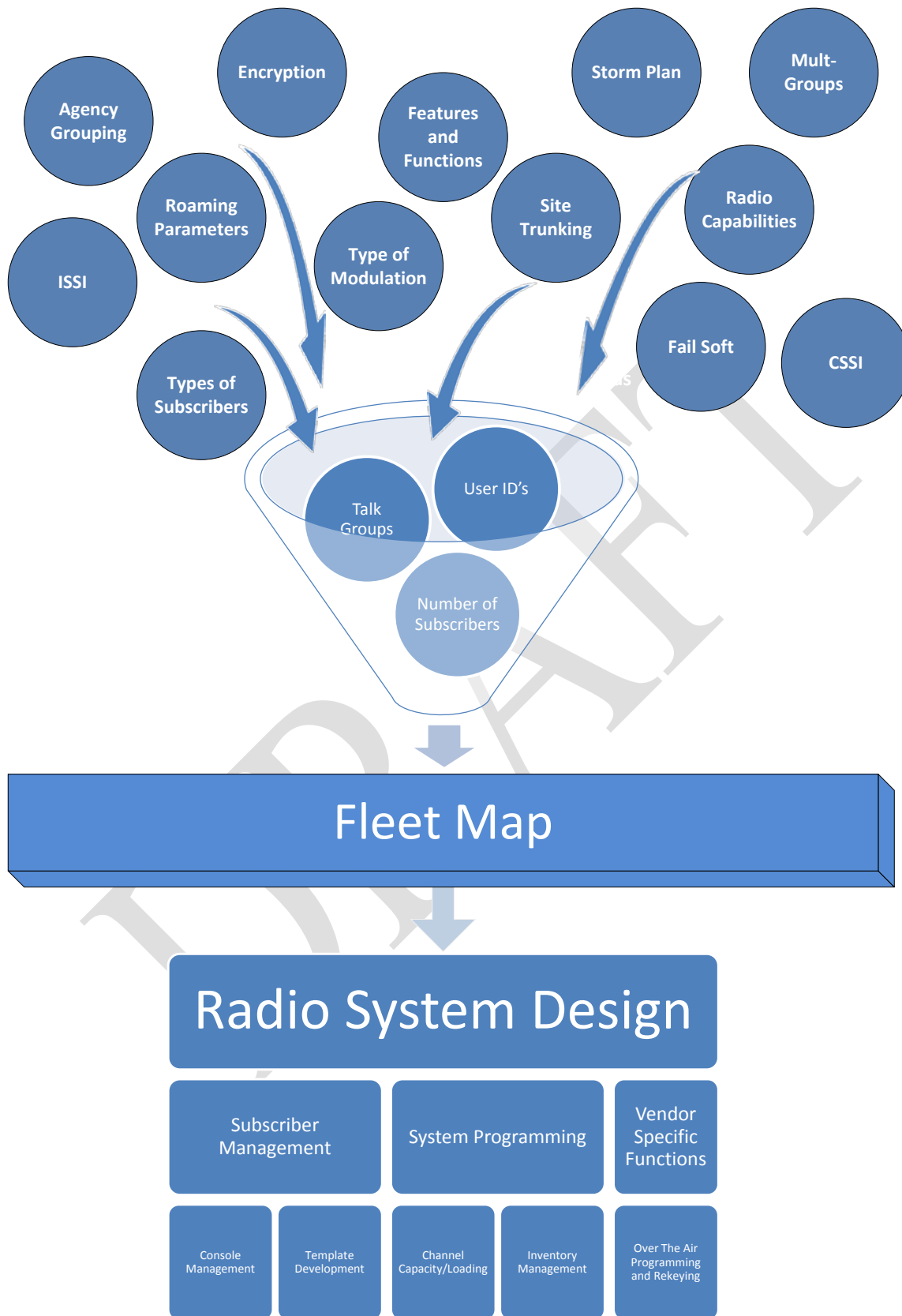


Fleet Mapping
For
Trunked Radio Systems
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The translation of radio subscribers requirements into a list of capabilities and features that are supported by common communications systems

Goal	Promote a uniform approach to the design and management of Local, State, or Regional Interoperable Trunked Radio Communications
Objectives	Allocate Subscriber ID's to prevent duplication between Systems
	Drive System Configuration and Channel Loading
	Define Subscriber Operational needs and unique characteristics
	Develop Talk Groups for Local, State, and Regional communications
	Promote Interoperable communications using common talk group parameters
	Establish common management systems and practices

Click on Link to access full document:
<http://www.wccca.com/users/forms/fleetmap.pdf>



FLEETMAPPING

FLEETMAPPING *Defined*

Fleetmapping is the process of configuring the features and programming parameters of a trunked radio system to function according to the unique operational requirements of each participating agency. Fleetmapping can be thought of as:

- Configuring trunked systems for management and control of subscriber radios.
- Assigning talkgroups to the radios issued to personnel.
- Assigning talkgroups to the dispatcher control positions.
- Defining the feature subsets available to the personnel using the radios and dispatcher control positions.

A fleetmap determines how the trunked radio system for each user group of an organization is controlled. Through controlling communications between different user groups and between individuals within a group, the trunked radio system resources are used efficiently.

Fleetmapping also provides a structured approach to the management of many radio users and provides the opportunity to plan for expansion or changes within an organization.

One of the key benefits of P25 system trunking is the way users can be organized.

An example of fleetmapping is a city that has police, fire and EMS as the primary users. Each primary user represents one fleet; within that fleet, managers, officials and tactical users are grouped into sub-fleets. Police may be in one group while fire and EMS are in others. All-call, interoperability and special-event groups then are established with different priority levels.

Most P25 system radio users are organized into talkgroups, multigroups (also known as announcement groups in radio programming) and agencygroups.

- A talkgroup is a group of radios that can share calls and messages as a group. The normal communications of a talkgroup do not require interaction with other talkgroups. Typically, the radio user communicates with members of his or her own talkgroup.
- A multigroup is a group of talkgroups. Multigroups usually comprise talkgroups that have a common functional responsibility.
- An agencygroup is a group of multigroups that periodically need to interact with each other.

FLEETMAPPING *Proposed changes to existing fleetmap partitioning*

The first task in fleetmapping is dividing the entire range of INV (Individual Radio Unit) ID's that are available into blocks, or often called partitioning. Depending on the demographics of the trunked radio system, INV ID's can be called radio ID, subscriber ID, UNIT ID, or customer ID, for this document, **Subscriber ID** will be used to describe the unique number assigned to each radio in the system. This unique number can be a number from 1 to 16,777,211.

There has been some previous work done in Oregon by the City of Eugene and Motorola to divide up this range into blocks of 100,000 ID's each (**See Appendix A**). This document labeled "Oregon County Fleetmapping Guide" is certainly a good start, but there are a few limitations to this guide that need to be addressed. This guide assigns a block of 100,000 Subscriber ID's per county and to each large State Agencies. This guide assigns the 1st two digits of the Subscriber ID to represent that unique county.

This only allows ninety nine (99) counties. Some States have more than 99 counties.

Also, this can be problematic when there are two or more systems per county, such as Multnomah County, which has the City of Portland's system and TriMet's system. At the other end, the Tri-County Frontier 700MHz trunked system covers Gilliam, Sherman, and Wheeler Counties. This would tie up 300,000 Subscriber ID's for system that has fewer than 2,000 radios. Plus allowing only 2 digits for county ID prevents the range from going past 10 million. And finally there could be counties in adjacent States that are part of an Oregon system that might have a duplicate county name.

The following is a proposed guide to address these limitations (**See Appendix B**). This proposed fleetmapping takes advantage of the entire range of 16 million available Subscriber ID's, while still preserving the Original County and State Agency allotment guide. For example, the proposed guide preserves Lane County's Subscriber ID range of 2,000,000 to 2,099,999 and this proposal adds a zero in front of county ID changing it from 20 to 020. Plus, changing the nomenclature from county ID to SYS (System) # will allow for unique system # to identify ISSI roaming information needed for fleetmapping. And additionally, there will now only be one SYS # for the Tri-County Frontier system, instead of three. And finally, City of Portland can use the original Multnomah County ID and a new one can assigned to Tri-Met. (**See Appendix C for in depth ID analysis**)

A similar proposed change is suggested to Talkgroup ID range (**See Appendix D**).

Since no changes are made in number range of existing Oregon Talkgroup fleetmap, all 64 partitions are already listed.

FLEETMAPPING *Subscriber ID Mapping.*

Once the entire region wide master subscriber ID FLEETMAP is partitioned out, each system owner has the opportunity to craft their own subscriber fleetmap to meet their specific operational requirements. Lane County/City of Eugene has already developed their own subscriber fleetmap (**See Appendix E**). The advantage to this fleetmap is that the system manager can tell by the subscriber ID number what the service is (i.e. police, fire) and type of radio (i.e. portable, mobile). Another example (**See Appendix F**) could be where the type of radio is not a concern and more service categories are needed.

Both Fleetmap E and F are adequate until the range is exceeded, for example, the Lane County fleetmap only allows for 2000 police mobiles. Once that range is exceeded, the system manager may have start using ID's from another service range, such as utilities.

It depends on the system size and anticipated number of subscribers on the system as to what plan is used.

A third example, could be to have one continuous block of all 100,000 subscribers ID's and assign ID's on come first come basis. Since all subscribers ID's that are entered into the database system usually has an associated alias, a simple ID search would reveal the identity of the subscriber. Also, having a continuous range may assist the technical system manger in controlling as to what ID's are already in use, and which ID's are open.

This way the radio programming technicians can grab the next available range of ID's needed.

By using the continuous subscriber ID fleetmap leads us right into the discussion of assigning the subscriber parameters to each ID (**See Appendix G**). Again, this is just an example; it's up each Technical System Manager to tailor the layout to their specific system requirements and vendor specific terms.

Discussing the actual Subscriber ID parameters is a subject for future discussion. The goal of this document is to offers a few proposed changes to the general fleetmap layout to facilitate

better long term management and raise the awareness of the various radio system owners throughout the region. Also refer to the PAM tool at NPSTC additional information, especially comparing terms between different vendors.

And finally, it is hoped that SIEC TEK committee can use this document as starting point to develop a more comprehensive document to address all the issues associated with inter-system interoperability.

To address the P25 requirements, such as TDMA, FDMA, channel Bandwidth, frequency band, modulation type, and etc., the TIA/EIA 102 series of documents would be needed as reference materials.

http://npstc.org/download.jsp?tableId=37&column=217&id=3010&file=NPTSC_PAM_Tool_A1.xlsx

FLEETMAPPING *Talkgroup ID Mapping.*

The Talkgroup can also have various configurations, **Appendix H** represents the existing Lane County Talkgroup Fleetmap and **Appendix I** represents typical example of the Talkgroup information that could be associated with each Talkgroup. Appendix I also does not follow the unique pre-assigned blocks, but uses the continuous list of ID's.

APPENDIX LIST

APPENDIX A: Oregon County Subscriber ID Fleetmapping Guide. Originally developed by Lane County/City of Eugene/Motorola. Partitions the Subscriber ID's into blocks of 100,000 each per county.

APPENDIX B: Proposed Subscriber ID partitioning. Instead of assigning blocks of 100,000 subscriber ID's to each county, this suggestion assigns blocks of 100,000 ID's per system.

APPENDIX C: Overview of the Project 25 Subscriber Unit Identity (SUID) structure.

APPENDIX D: Proposed Talkgroup ID Partitioning. Instead of assigning blocks of 1000 Talkgroup ID's per county, instead, assign by system.

APPENDIX E: Existing Lane County subscriber ID mapping. This plan assigns unique blocks of 100 subscriber ID's to specific types of radio service and type of radio. Limits radio service to 10 categories.

APPENDIX F: Example similar to Lane County, but assigns blocks based only radio service. This example allows for a larger variety of radio service categories, but lacks the ability to specific radio types.

APPENDIX G: This is an example where the entire subscriber ID list would be a continuous list of all 100,000 assigned per system. As new ID's are needed, they assigned in sequential order. Plus allows creating master database list of all programing parameter assigned to each subscriber ID.

APPENDIX H: Existing Lane County talkgroup ID mapping. This plan assigns unique blocks of 100 talkgroup ID's to types of radio service. Limits radio service to 10 categories.

APPENDIX I: This is an example where the entire talkgroup list would be a continuous list of all 1000 TG's assigned per system. As new talkgroups are needed, they assigned in sequential order. Plus it allows creating master database list of all talkgroup information assigned to each talkgroup.

APPENDIX A
OREGON COUNTY FLEET MAPPING GUIDE

Example:

20 - LANE COUNTY RADIO ID RANGE 2,000,000 - 2,099,999 (1E8480 - 200B1F HEX)

COUNTY	ID	COUNTY	ID
Baker (1B)	01	Wheeler (3W)	35
Benton (2B)	02	Yamhill (1Y)	36
Clackamas (1C)	03	System Wide	37
Clatsop (2C)	04	OSP	38
Columbia (3C)	05	DOC	39
Coos (4C)	06	ODOT	40
Crook (5C)	07	ODFW	41
Curry (6C)	08	State Forestry	42
Deschutes (1D)	09	DHS/OEM	43
Douglas (2D)	10	Other-State	44
Gilliam (1G)	11	Tribal	45
Grant (2G)	12	Federal	46
Harney (1H)	13	FUTURE	47
Hood River (2H)	14	FUTURE	48
Jackson (1J)	15	FUTURE	49
Jefferson (2J)	16	FUTURE	50
Josephine (3J)	17	FUTURE	51
Klamath (1K)	18	FUTURE	52
Lake (1L)	19	FUTURE	53
Lane (2L)	20	FUTURE	54
Lincoln (3L)	21	FUTURE	55
Linn (4L)	22	FUTURE	56
Malheur (1M)	23	FUTURE	57
Marion (2M)	24	FUTURE	58
Morrow (3M)	25	FUTURE	59
Multnomah (4M)	26	FUTURE	60
Polk (1P)	27	FUTURE	61
Sherman (1S)	28	FUTURE	62
Tillamook (1T)	29	FUTURE	63
Umatilla (1U)	30	FUTURE	64
Union (2U)	31		
Wallowa (1W)	32		
Wasco (2W)	33		
Washington (3W)	34		

APP B: PROPOSED SUBSCRIBER ID PARTITIONING							
WACN ID 20 BITS	SYSTEM ID 12 BITS	SYS #	SUBSCRIBER ID 24 BITS (~16 Million available)				SYSTEM ALIAS/ AGENCY
			SUBSCRIBER ID RANGE (100,000 ID,s per system)				
			DEC	HEX	DEC	HEX	
		001	100,000	186A0	199,999	30D3F	Reserved for future use
		002	200,000	30D40	299,999	493DF	Reserved for future use
		003	300,000	493E0	399,999	61A7F	Reserved for future use
		004	400,000	61A80	499,999	7A11F	Reserved for future use
		005	500,000	7A120	599,999	927BF	Reserved for future use
		006	600,000	927C0	699,999	AAE5F	Reserved for future use
		007	700,000	AAE60	799,999	C34FF	Reserved for future use
		008	800,000	C3500	899,999	DBB9F	Reserved for future use
		009	900,000	DBBA0	999,999	F423F	Reserved for future use
		010	1,000,000	F4240	1,099,999	10C8DF	TRI-MET
		011	1,100,000	10C8E0	1,199,999	124F7F	Reserved for foreign roamers
		012	1,200,000	124F80	1,299,999	13D61F	
		013	1,300,000	13D620	1,399,999	155CBF	
		014	1,400,000	155CC0	1,499,999	16E35F	
		015	1,500,000	16E360	1,599,999	1869FF	ROGUE VALLEY TRANSIT DIST
		016	1,600,000	186A00	1,699,999	19F09F	Reserved for foreign roamers
		017	1,700,000	19F0A0	1,799,999	1B773F	
		018	1,800,000	1B7740	1,899,999	1CFDDF	
		019	1,900,000	1CFDE0	1,999,999	1E847F	
		020	2,000,000	1E8480	2,099,999	200B1F	LANE/LRIG/EUGENE
		021	2,100,000	200B20	2,199,999	2191BF	Reserved for foreign roamers
		022	2,200,000	2191C0	2,299,999	23185F	
		023	2,300,000	231860	2,399,999	249EFF	
		024	2,400,000	249F00	2,499,999	26259F	MARION/SALEM
		025	2,500,000	2625A0	2,599,999	27AC3F	Reserved for foreign roamers
		026	2,600,000	27AC40	2,699,999	2932DF	MULTNOMAH/PORTLAND
		027	2,700,000	2932E0	2,799,999	2AB97F	Reserved for foreign roamers
		028	2,800,000	2AB980	2,899,999	2C401F	SHERMAN/3 COUNTY SYS
		029	2,900,000	2C4020	2,999,999	2DC6BF	Reserved for foreign roamers
		030	3,000,000	2DC6C0	3,099,999	2F4D5F	UMATILLA
		031	3,100,000	2F4D60	3,199,999	30D3FF	Reserved for foreign roamers
		032	3,200,000	30D400	3,299,999	325A9F	
		033	3,300,000	325AA0	3,399,999	33E13F	
	ABC	034	3,400,000	33E140	3,499,999	3567DF	WCCCA/C800
		035	3,500,000	3567E0	3,599,999	36EE7F	Reserved for foreign roamers
		036	3,600,000	36EE80	3,699,999	38751F	
		037	3,700,000	387520	3,799,999	39FBBF	
		038	3,800,000	39FBC0	3,899,999	3B825F	OSP
		039	3,900,000	3B8260	3,999,999	3D08FF	DOC
		040	4,000,000	3D0900	4,099,999	3E8F9F	ODOT

WACN ID 20 BITS	SYSTEM ID 12 BITS	SYS #	SUBSCRIBER ID 24 BITS (~16 Million available)				SYSTEM ALIAS/ AGENCY
			SUBSCRIBER ID RANGE (100,000 ID,s per system)				
			DEC	HEX	DEC	HEX	
		041	4,100,000	3E8FA0	4,199,999	40163F	ODFW
		042	4,200,000	401640	4,299,999	419CDF	STATE FORESTRY
		043	4,300,000	419CE0	4,399,999	43237F	DHS/OEM
		044	4,400,000	432380	4,499,999	44AA1F	Reserved for future use
		045	4,500,000	44AA20	4,599,999	4630BF	TRIBAL
		046	4,600,000	4630C0	4,699,999	47B75F	FEDERAL
		047	4,700,000	47B760	4,799,999	493DFE	Reserved for future use
		048	4,800,000	493E00	4,899,999	4AC49F	Reserved for future use
		049	4,900,000	4AC4A0	4,999,999	4C4B3F	Reserved for future use
		050	5,000,000	4C4B40	5,099,999	4DD1DF	Reserved for foreign roamers
		051	5,100,000	4DD1E0	5,199,999	4F587F	Reserved for foreign roamers
		052	5,200,000	4F5880	5,299,999	50DF1F	Reserved for foreign roamers
		053	5,300,000	50DF20	5,399,999	5265BF	
		054	5,400,000	5265C0	5,499,999	53EC5F	
		055	5,500,000	53EC60	5,599,999	5572FF	
		056	5,600,000	557300	5,699,999	56F99F	
		057	5,700,000	56F9A0	5,799,999	58803F	
		058	5,800,000	588040	5,899,999	5A06DF	
		059	5,900,000	5A06E0	5,999,999	5B8D7F	
		060	6,000,000	5B8D80	6,099,999	5D141F	
		061	6,100,000	5D1420	6,199,999	5E9ABF	
		062	6,200,000	5E9AC0	6,299,999	60215F	
		063	6,300,000	602160	6,399,999	61A7FF	
		064	6,400,000	61A800	6,499,999	632E9F	
		065	6,500,000	632EA0	6,599,999	64B53F	
		066	6,600,000	64B540	6,699,999	663BDF	
		067	6,700,000	663BE0	6,799,999	67C27F	
		068	6,800,000	67C280	6,899,999	69491F	
		069	6,900,000	694920	6,999,999	6ACFBF	
		070	7,000,000	6ACFC0	7,099,999	6C565F	
		071	7,100,000	6C5660	7,199,999	6DDCFF	
		072	7,200,000	6DDD00	7,299,999	6F639F	
		073	7,300,000	6F63A0	7,399,999	70EA3F	
		074	7,400,000	70EA40	7,499,999	7270DF	
		075	7,500,000	7270E0	7,599,999	73F77F	
		076	7,600,000	73F780	7,699,999	757E1F	
		077	7,700,000	757E20	7,799,999	7704BF	
		078	7,800,000	7704C0	7,899,999	788B5F	
		079	7,900,000	788B60	7,999,999	7A11FF	

WACN ID 20 BITS	SYSTEM ID 12 BITS	SYS #	SUBSCRIBER ID 24 BITS (~16 Million available)				SYSTEM ALIAS/ AGENCY
			SUBSCRIBER ID RANGE (100,000 ID,s per system)				
			DEC	HEX	DEC	HEX	
		080	8,000,000	7A1200	8,099,999	7B989F	
		081	8,100,000	7B98A0	8,199,999	7D1F3F	
		082	8,200,000	7D1F40	8,299,999	7EA5DF	
		083	8,300,000	7EA5E0	8,399,999	802C7F	
		084	8,400,000	802C80	8,499,999	81B31F	
		085	8,500,000	81B320	8,599,999	8339BF	
		086	8,600,000	8339C0	8,699,999	84C05F	
		087	8,700,000	84C060	8,799,999	8646FF	
		088	8,800,000	864700	8,899,999	87CD9F	
		089	8,900,000	87CDA0	8,999,999	89543F	
		090	9,000,000	895440	9,099,999	8ADADF	
		091	9,100,000	8ADAEO	9,199,999	8C617F	
		092	9,200,000	8C6180	9,299,999	8DE81F	
		093	9,300,000	8DE820	9,399,999	8F6EBF	
		094	9,400,000	8F6EC0	9,499,999	90F55F	
		095	9,500,000	90F560	9,599,999	927BFF	
		096	9,600,000	927C00	9,699,999	94029F	
		097	9,700,000	9402A0	9,799,999	95893F	
		098	9,800,000	958940	9,899,999	970FDF	
		099	9,900,000	970FE0	9,999,999	98967F	
		100	10,000,000	989680	10,099,999	9A1D1F	
		101	10,100,000	9A1D20	10,199,999	9BA3BF	
		102	10,200,000	9BA3C0	10,299,999	9D2A5F	
		103	10,300,000	9D2A60	10,399,999	9EBOFF	
		104	10,400,000	9EB100	10,499,999	A0379F	
		105	10,500,000	A037A0	10,599,999	A1BE3F	
		106	10,600,000	A1BE40	10,699,999	A344DF	
		107	10,700,000	A344E0	10,799,999	A4CB7F	
		108	10,800,000	A4CB80	10,899,999	A6521F	
		109	10,900,000	A65220	10,999,999	A7D8BF	
		110	11,000,000	A7D8C0	11,099,999	A95F5F	
		111	11,100,000	A95F60	11,199,999	AAE5FF	
		112	11,200,000	AAE600	11,299,999	AC6C9F	
		113	11,300,000	AC6CA0	11,399,999	ADF33F	
		114	11,400,000	ADF340	11,499,999	AF79DF	
		115	11,500,000	AF79E0	11,599,999	B1007F	
		116	11,600,000	B10080	11,699,999	B2871F	
		117	11,700,000	B28720	11,799,999	B40DBF	
		118	11,800,000	B40DC0	11,899,999	B5945F	
		119	11,900,000	B59460	11,999,999	B71AFF	

WACN ID 20 BITS	SYSTEM ID 12 BITS	SYS #	SUBSCRIBER ID 24 BITS (~16 Million available)				SYSTEM ALIAS/ AGENCY
			SUBSCRIBER ID RANGE (100,000 ID,s per system)				
			DEC	HEX	DEC	HEX	
		120	12,000,000	B71B00	12,099,999	B8A19F	
		121	12,100,000	B8A1A0	12,199,999	BA283F	
		122	12,200,000	BA2840	12,299,999	BBAEDF	
		123	12,300,000	BBAEE0	12,399,999	BD357F	
		124	12,400,000	BD3580	12,499,999	BEBC1F	
		125	12,500,000	BEBC20	12,599,999	C042BF	
		126	12,600,000	C042C0	12,699,999	C1C95F	
		127	12,700,000	C1C960	12,799,999	C34FFF	
		128	12,800,000	C35000	12,899,999	C4D69F	
		129	12,900,000	C4D6A0	12,999,999	C65D3F	
		130	13,000,000	C65D40	13,099,999	C7E3DF	
		131	13,100,000	C7E3E0	13,199,999	C96A7F	
		132	13,200,000	C96A80	13,299,999	CAF11F	
		133	13,300,000	CAF120	13,399,999	CC77BF	
		134	13,400,000	CC77C0	13,499,999	CDFE5F	
		135	13,500,000	CDFE60	13,599,999	CF84FF	
		136	13,600,000	CF8500	13,699,999	D10B9F	
		137	13,700,000	D10BA0	13,799,999	D2923F	
		138	13,800,000	D29240	13,899,999	D418DF	
		139	13,900,000	D418E0	13,999,999	D59F7F	
		140	14,000,000	D59F80	14,099,999	D7261F	
		141	14,100,000	D72620	14,199,999	D8ACBF	
		142	14,200,000	D8ACCO	14,299,999	DA335F	
		143	14,300,000	DA3360	14,399,999	DBB9FF	
		144	14,400,000	DBBA00	14,499,999	DD409F	
		145	14,500,000	DD40A0	14,599,999	DEC73F	
		146	14,600,000	DEC740	14,699,999	E04DDF	
		147	14,700,000	E04DE0	14,799,999	E1D47F	
		148	14,800,000	E1D480	14,899,999	E35B1F	
		149	14,900,000	E35B20	14,999,999	E4E1BF	
		150	15,000,000	E4E1C0	15,099,999	E6685F	
		151	15,100,000	E66860	15,199,999	E7EEFF	
		152	15,200,000	E7EF00	15,299,999	E9759F	
		153	15,300,000	E975A0	15,399,999	EAFC3F	
		154	15,400,000	EAFC40	15,499,999	EC82DF	
		155	15,500,000	EC82E0	15,599,999	EE097F	
		156	15,600,000	EE0980	15,699,999	EF901F	
		157	15,700,000	EF9020	15,799,999	F116BF	
		158	15,800,000	F116C0	15,899,999	F29D5F	
		159	15,900,000	F29D60	15,999,999	F423FF	

WACN ID 20 BITS	SYSTEM ID 12 BITS	SYS #	SUBSCRIBER ID 24 BITS (~16 Million available)				SYSTEM ALIAS/ AGENCY
			SUBSCRIBER ID RANGE (100,000 ID,s per system)				
			DEC	HEX	DEC	HEX	
		160	16,000,000	F42400	16,099,999	F5AA9F	
		161	16,100,000	F5AAA0	16,199,999	F7313F	
		162	16,200,000	F73140	16,299,999	F8B7DF	
		163	16,300,000	F8B7E0	16,399,999	FA3E7F	
		164	16,400,000	FA3E80	16,499,999	FBC51F	
		165	16,500,000	FBC520	16,599,999	FD4BBF	
		166	16,600,000	FD4BC0	16,699,999	FED25F	
		167	16,700,000	FED260	16,799,999	10058FF	

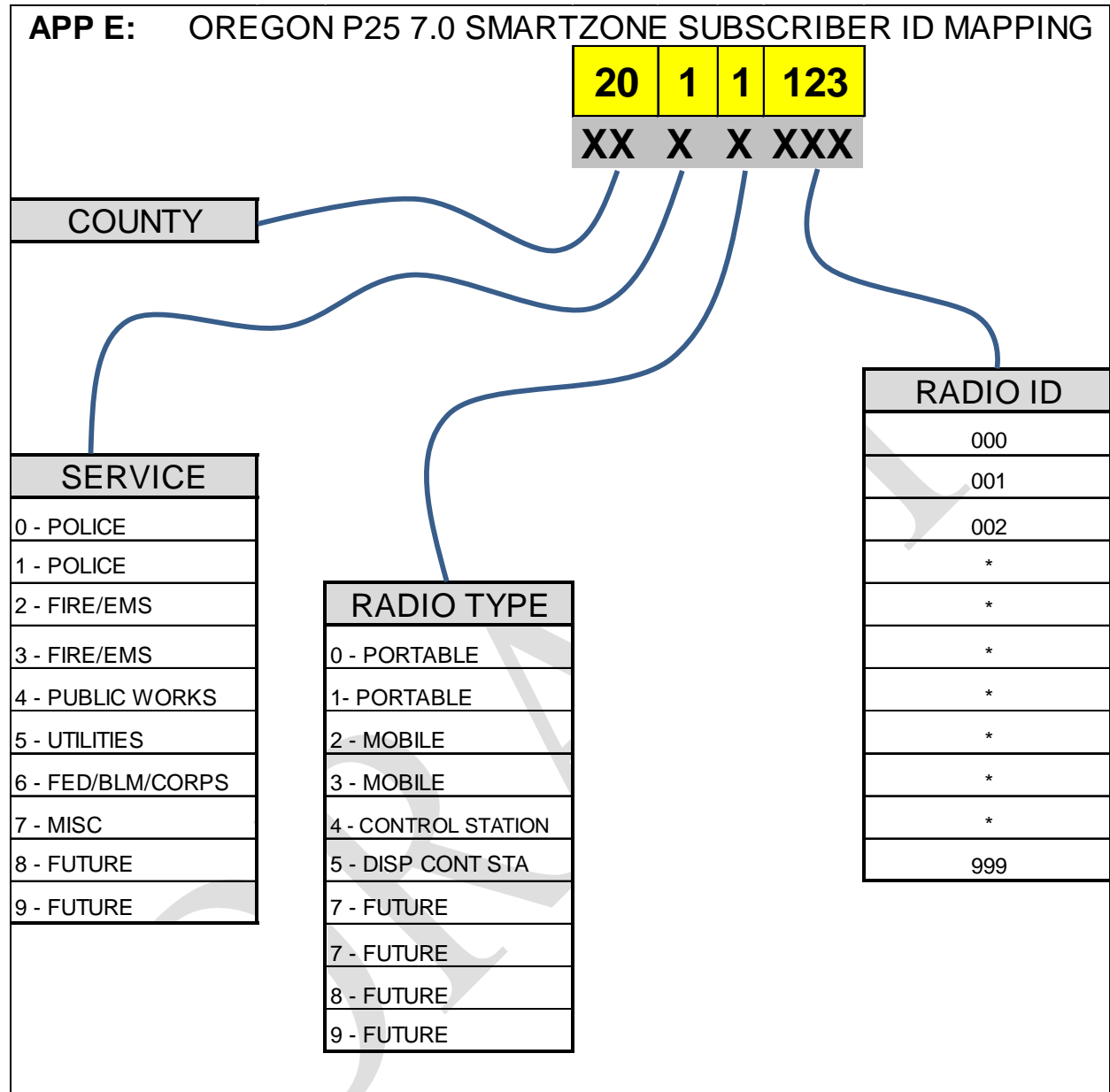
DRAFT

APP D: PROPOSED TALKGROUP ID PARTITIONING

SYS #	TALKGROUP ID 20 BITS (~65,000 Available)				SYSTEM/ AGENCY
	TALKGROUP ID RANGE (1,000 TG ID,s per system)				
	DEC	HEX	DEC	HEX	
1	01000	3E8	01999	7CF	Reserved for future use
2	02000	7D0	02999	BB7	Reserved for future use
3	03000	BB8	03999	F9F	Reserved for future use
4	04000	FA0	04999	1387	Reserved for future use
5	05000	1388	05999	176F	Reserved for future use
6	06000	1770	06999	1B57	Reserved for future use
7	07000	1B58	07999	1F3F	Reserved for future use
8	08000	1F40	08999	2327	Reserved for future use
9	09000	2328	09999	270F	Reserved for future use
10	10000	2710	10999	2AF7	TRI-MET
11	11000	2AF8	11999	2EDF	
12	12000	2EE0	12999	32C7	
13	13000	32C8	13999	36AF	
14	14000	36B0	14999	3A97	
15	15000	3A98	15999	3E7F	ROGUE VALLEY TRANSIT DIST
16	16000	3E80	16999	4267	
17	17000	4268	17999	464F	
18	18000	4650	18999	4A37	
19	19000	4A38	19999	4E1F	
20	20000	4E20	20999	5207	LANE/LRIG/EUGENE
21	21000	5208	21999	55EF	
22	22000	55F0	22999	59D7	
23	23000	59D8	23999	5DBF	
24	24000	5DC0	24999	61A7	MARION/SALEM
25	25000	61A8	25999	658F	
26	26000	6590	26999	6977	MULTNOMAH/PORTLAND
27	27000	6978	27999	6D5F	
28	28000	6D60	28999	7147	SHERMAN/3 COUNTY SYS
29	29000	7148	29999	752F	
30	30000	7530	30999	7917	UMATILLA
31	31000	7918	31999	7CFF	
32	32000	7D00	32999	80E7	
33	33000	80E8	33999	84CF	
34	34000	84D0	34999	88B7	WCCCA/C800
35	35000	88B8	35999	8C9F	
36	36000	8CA0	36999	9087	
37	37000	9088	37999	946F	
38	38000	9470	38999	9857	OSP
39	39000	9858	39999	9C3F	DOC

SYS #	TALKGROUP ID 20 BITS (~65,000 Available)				SYSTEM/ AGENCY
	TALKGROUP ID RANGE (1,000 TG ID,s per system)				
	DEC	HEX	DEC	HEX	
40	40000	9C40	40999	A027	ODOT
41	41000	A028	41999	A40F	ODFW
42	42000	A410	42999	A7F7	STATE FORESTRY
43	43000	A7F8	43999	ABDF	DHS/OEM
44	44000	ABE0	44999	AFC7	
45	45000	AFC8	45999	B3AF	TRIBAL
46	46000	B3B0	46999	B797	FEDERAL
47	47000	B798	47999	BB7F	
48	48000	BB80	48999	BF67	
49	49000	BF68	49999	C34F	
50	50000	C350	50999	C737	
51	51000	C738	51999	CB1F	
52	52000	CB20	52999	CF07	
53	53000	CF08	53999	D2EF	
54	54000	D2F0	54999	D6D7	
55	55000	D6D8	55999	DABF	
56	56000	DAC0	56999	DEA7	
57	57000	DEA8	57999	E28F	
58	58000	E290	58999	E677	
59	59000	E678	59999	EA5F	
60	60000	EA60	60999	EE47	
61	61000	EE48	61999	F22F	
62	62000	F230	62999	F617	
63	63000	F618	63999	F9FF	
64	64000	FA00	64999	FDE7	

Appendix E:



APP F: EXAMPLE P25 SUBSCRIBER ID FLEET MAP PER SYSTEM

SERVICE	BLOCK NUMBER (1000 IND ID's PER BLOCK) (100,000 Available)	START OF RANGE		END OF RANGE	
		DEC	HEX	DEC	HEX
CONSOLES LAW	0	3,400,000	33E140	3,400,999	33E527
CONSOLE FIRE	1	3,401,000	33E528	3,401,999	33E90F
CONTROL STATION	2	3,402,000	33E910	3,402,999	33ECF7
DISP CONTROL STA	3	3,403,000	33ECF8	3,403,999	33F0DF
FED/BLM/CORPS	4	3,404,000	33F0E0	3,404,999	33F4C7
FIRE/EMS 1	5	3,405,000	33F4C8	3,405,999	33F8AF
FIRE/EMS 1	6	3,406,000	33F8B0	3,406,999	33FC97
LAW 1	7	3,407,000	33FC98	3,407,999	34007F
LAW 2	8	3,408,000	340080	3,408,999	340467
LAW 3	9	3,409,000	340468	3,409,999	34084F
LAW 4	10	3,410,000	340850	3,410,999	340C37
LAW 5	11	3,411,000	340C38	3,411,999	34101F
MUTUAL AID	12	3,412,000	341020	3,412,999	341407
PUBLIC WORKS	13	3,413,000	341408	3,413,999	3417EF
RECORDER	14	3,414,000	3417F0	3,414,999	341BD7
SCHOOLS	15	3,415,000	341BD8	3,415,999	341FBF
TRANSIT	16	3,416,000	341FC0	3,416,999	3423A7
UTILITIES	19	3,417,000	3423A8	3,417,999	34278F
	98	3,498,000	356010	3,498,999	3563F7
	99	3,499,000	3563F8	3,499,999	3567DF

APP G EXAMPLE: SUBSCRIBER ID PARAMETERS (Motorola Terms)														
RADIO #	HOME SYS ID	DEC ID	HEX ID	RADIO USER NAME (ALIAS)	IP ADDRESS			ROAMING			ENCRYPTION			Tactical Non-Tactical
					(D)ynamic	(S)tatic	(N)one	ADDRESS	TYPE	SYSTEMS ID's ALLOWED TO OPERATE ON	AUTHORIZED KEYS	AGENCY	EMERGENCY	
1	A	3,400,000	33E140	KING COUNTY DISPATCH	10.4.0.1	S	A	C		CKR1			KING COUNTY	
2	A	3,401,000	33E528	RED FIRE DISPATCH	10.5.0.1	S	A	B C		CKR1			FIRE DIST 9	
3	A	3,402,000	33E910	CHIEF JOHNSON	10.3.0.2	S	A	B C D E		CKR1	CKR2		FIRE DIST 9	
4	A	3,403,000	33ECF8	COMMANDER CODY	10.7.0.1	S	A	B		CKR1	CKR2	CKR3	KING COUNTY	
5	A	3,404,000	33F0E0	SHADOW LEADER	10.7.1.1	S	A	B		CKR1	CKR2	CKR3	KING COUNTY	
6	A	3,405,000	33F4C8	GRADER ONE		D	A						METRO PW	
7	A	3,406,000	33F8B0	PRINCIPAL STONEFACE		D	A			CKR1			SCHOOL DIST #56	
8	A	3,407,000	33FC98	BLUE BUS 99		D	A						METRO TRANSIT	
9	A	3,408,000	340080	POWER & LIGHT 49		N	A	D E					METRO P&L	
10	A	3,409,000	340468	LOGGING RECORDER 9	10.9.0.9	S	A						FIRE DIST 9	

CKR (Common Key Reference) is a Motorola term for the P25 term SLN (Storage Location Number)

APP H: OREGON P25 7.X SMARTZONE TALKGROUP ID MAPPING

800 XX X XX

COUNTY

SERVICE
0 - POLICE
1 - POLICE
2 - FIRE/EMS
3 - FIRE/EMS
4 - PUBLIC WORKS
5 - UTILITIES
6 - FED/BLM/CORPS
7 - MISC
8 - FUTURE
9 - FUTURE

TALKGROUP ID
00
01
02
*
*
*
*
*
*
99

20 - LANE COUNTY TALKGROUP ID RANGE 20000 - 20999 (4E20 - 5207 HEX)

37 - SYSTEM WIDE TALKGROUP ID RANGE (Events & Regional TG)
 37000 - 37999 (9088 - 946F HEX)

OREGON COUNTY TALKGROUP FLEETMAPPING GUIDE

COUNTY	ID	COUNTY	ID
Baker (1B)	01	Wheeler (3W)	35
Benton (2B)	02	Yamhill (1Y)	36
Clackamas (1C)	03	System Wide	37
Clatsop (2C)	04	OSP	38
Columbia (3C)	05	DOC	39
Coos (4C)	06	ODOT	40
Crook (5C)	07	ODFW	41
Curry (6C)	08	State Forestry	42
Deschutes (1D)	09	DHS/OEM	43
Douglas (2D)	10	Other-State	44
Gilliam (1G)	11	Tribal	45
Grant (2G)	12	Federal	46
Harney (1H)	13	FUTURE	47
Hood River (2H)	14	FUTURE	48
Jackson (1J)	15	FUTURE	49
Jefferson (2J)	16	FUTURE	50
Josephine (3J)	17	FUTURE	51
Klamath (1K)	18	FUTURE	52
Lake (1L)	19	FUTURE	53
Lane (2L)	20	FUTURE	54
Lincoln (3L)	21	FUTURE	55
Linn (4L)	22	FUTURE	56
Malheur (1M)	23	FUTURE	57
Marion (2M)	24	FUTURE	58
Morrow (3M)	25	FUTURE	59
Multnomah (4M)	26	FUTURE	60
Polk (1P)	27	FUTURE	61
Sherman (1S)	28	FUTURE	62
Tillamook (1T)	29	FUTURE	63
Umatilla (1U)	30	FUTURE	64
Union (2U)	31		
Wallowa (1W)	32		
Wasco (2W)	33		
Washington (3W)	34		

APP I: EXAMPLE TALKGROUP INFORMATION (Motorola System)														
TG #	DEC ID	HEX ID	HOME SYS ID	TALKGROUP NAME (ALIAS)	PRIORITY LEVEL	RECORDED	ENCRYPTION		FAILSOFT			ISSI (Inter-WACN Roaming)		
							ENCRYPTED	CKR	FAILSOFT ENABLED	TX FREQ (MHz)	RX FREQ (MHz)	ANNOUNCE TG	ROAM	TYPE
						Yes	AES					Yes	Auto	A
						No	No	xxx				No	Manual	B
			xxx		2-10	No	No	xxx	xxx.xxxxx	xxx.xxxxx	xxx.xxxxx	No		C
														D
1	34001	84D1	A	SWAT 1	2	Yes	AES	CKR1						A,B,C
2	34002	84D2	A	SO DISP 1	2	Yes	AES	CKR2						A,B
3	34003	84D3	A	FIRE DISP	2	Yes	AES	CKR3						A,B
4	34004	84D4	A	FIRE OPS	2	Yes	AES	CKR3						A,B
5	34005	84D5	A	PUBLIC WORKS	3	No	No							A
6	34006	84D6	A	GREEN BUS	6	No	No							B
7	34007													
8	34008													
9	34009													
10	34010													
11	34011													
12	34012													
						CKR (Common Key Reference) is a Motorola term for the P25 term SLIN (Storage Location Number)								
						PRIORITY LEVEL 2 = Highest 10 = Lowest 1 reserved for emergency								