DISA
DEFENSE INFORMATION SYSTEMS AGENCY
The IT Combat Support Agency

DoD Public Safety Communications
PSC Implementation & State/Municipal ESInet Peering

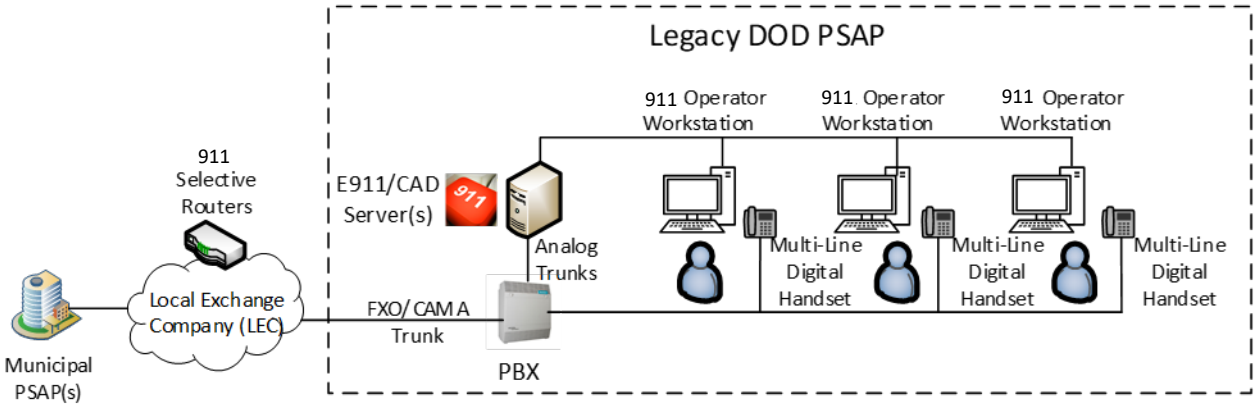
John Holloway
DISA/CE - PSC
Jon R. Marcy-CTR
Netmaker Communications, LLC
Dec 2, 2020

Intent

- Overview of Interim Operational Capability (IOC)
- Overview of Final Operational Capability (FOC)

Current PSAP Connectivity

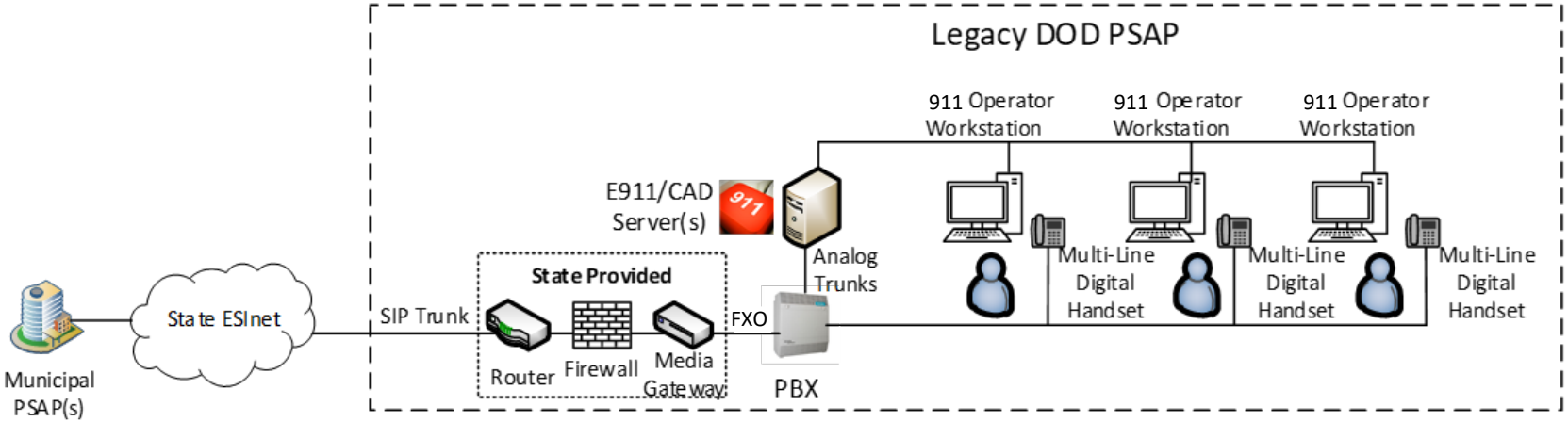
- Current network connectivity is between the DoD PSAP and the telecommunications carrier selective routers
- Transport is FXO analog trunks supporting CAMA signaling off the selective routers
- Several Base, Post, Camp and Stations have dedicated PRI trunk connecting the base communications office End Office with the PSAP



IOC Strategy

- As selective routers are retired and States/Municipalities transition to IP based ESInets, DoD PSAPs located within those states will be required to interconnect to the ESInet
- Most DoD PSAPs are not IP ready, and will require new ATOs when they do upgrade
- Some States are offering to cover the cost of installing Customer Premise Equipment (CPE) designed to terminate an IP connection and break it back down to FXO/CAMA for legacy PSAPs
- DODI 8010.01, DODIN Transport, does not permit for “back-door” commercial IP connections to be brought onto a base
- Potential “temp” allowance with DoD CIO waiver to allow private connection until DoD PSAP is upgrade to NG911

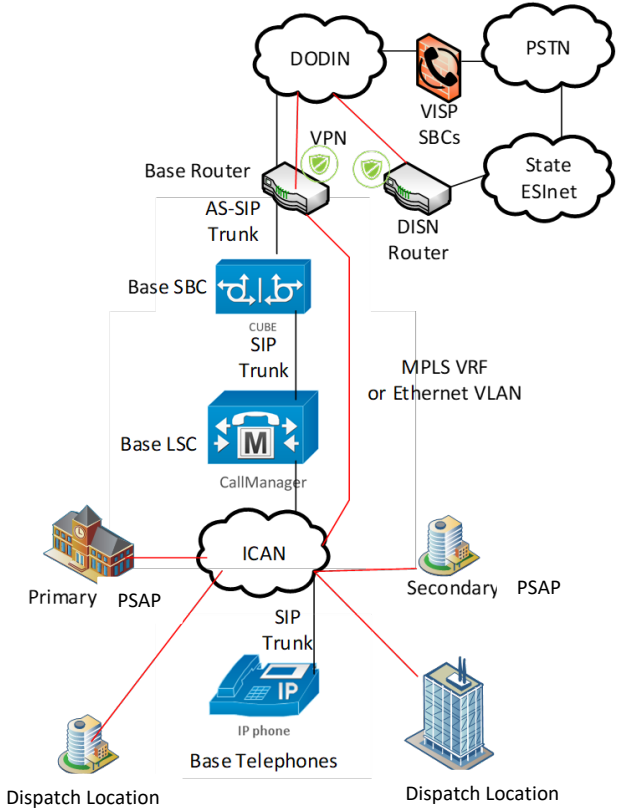
IOC Strategy Framework



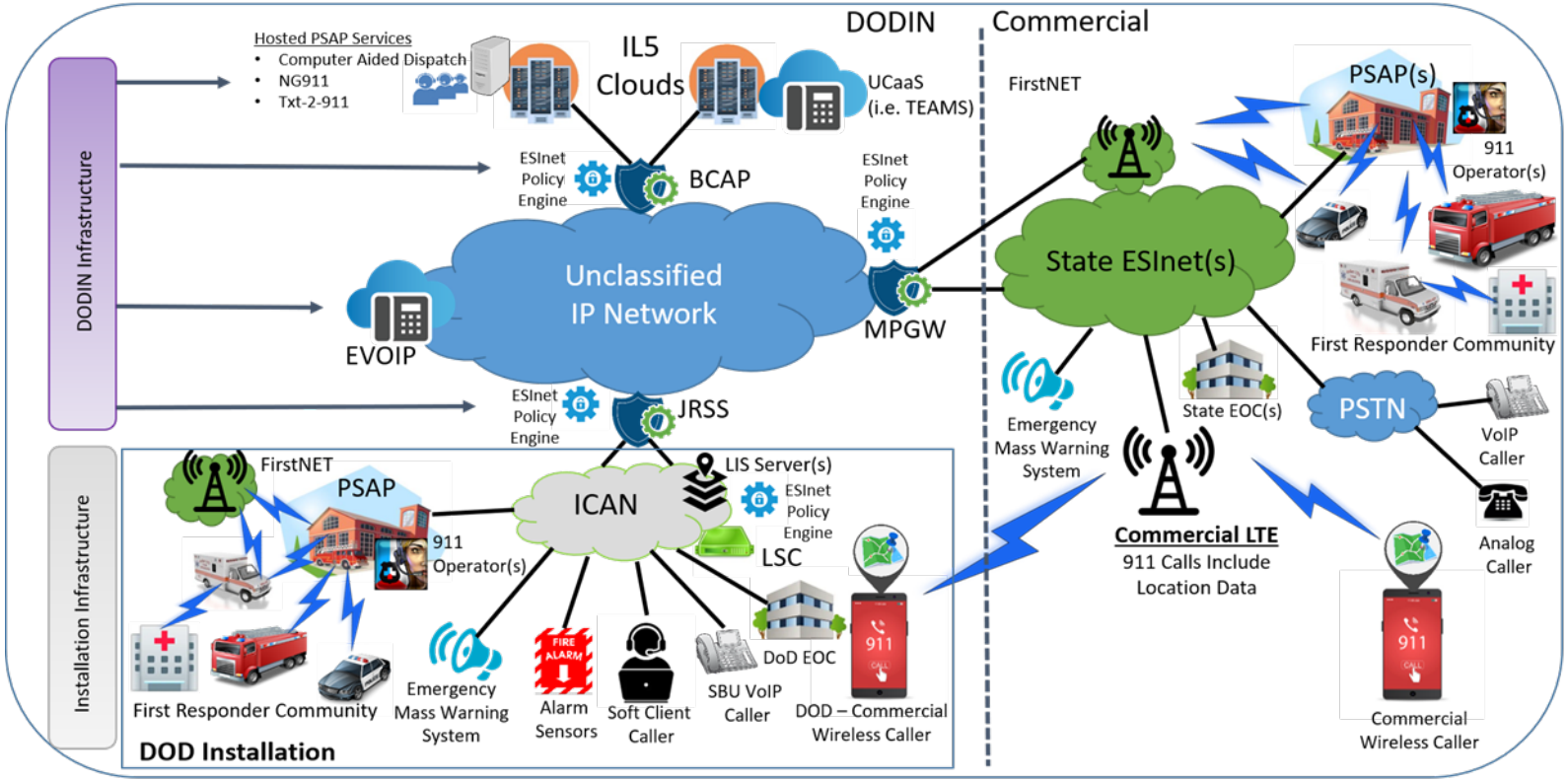
- IOC – A: permits State to bring in commercial dedicated Ethernet circuit to DoD PSAP for State ESInet interconnection
- No change to PSAP configuration, leaving existing ATO in place
- Some States are providing the CPE & Circuit

IOC Strategy Framework

- IOC- B: Establish MPLS-VRF to function as a Point-to-Point VPN to interconnect State ESInet with Base PSAP
- Continue to route 911 calls out to PSTN, and have State ESInet route them back over VPN to DoD PSAP
- Provides States Primary and Secondary “meet-me” points to connect to, in lieu of dedicated connects to every DoD PSAP within the State
- Allows for more seamless transition to DoD ESInet when operational



FOC Framework



Conclusion

- DISA has two feasible IOC options for meeting the near-term requirement to get DoD PSAPs off legacy selective routers
- Leveraging DODIN VPN and working with States to interconnect to established peering points positions the DoD for the future
- Final Operational Capability Framework represents an operational DoD ESInet, allowing for 911 calls originating from DoD VoIP end instruments to remain within the DODIN and be successfully routed to the correct PSAP based on location information
- State ESInet connectivity will support inbound 911 calls from mobile devices or other commercial end points that need to be forwarded to a DoD PSAP

DEFENSE INFORMATION SYSTEMS AGENCY
The IT Combat Support Agency

www.disa.mil **/USDISA** **@USDISA**

Acronym Dictionary

ASAC	Assured Service Admission Control
CAP	Cloud Access Point
C3LB	Command, Control, Communications Leadership Board
CDC	Core Data Center
CE	Customer Edge
CEDC	Component Edge Data Center
CSPR	Core Session Policy Router
DCR	DODIN Capabilities Requirements
DEOS	Defense Enterprise Office Suite
DISN	Defense Information Systems Network
DOD CIO	Department of Defense Chief Information Officer
DODD	Department of Defense Directive
DODI	Department of Defense Instruction
DODIN	Department of Defense Information Network
DNS	Domain Name Service
DRSN	Defense Red Switch Network
DSN	Defense Switch Network
EA	Executive Agent
E911	Enhanced 911
ECAPS	Enterprise Collaboration and Productivity Suite
EMWNS	Emergency Mass Warning Notification System
ESINET	Emergency Service Intranet
EUES	End User Enterprise Services
GIS	Geographic Information System
HF	High Frequency
HTTPS	Hypertext Transfer Protocol Secure
IDAM	Identity and Access Management

IG	Installation Gateway
IDS	Intrusion Detection System
IPN	Installation Processing Node
IPS	Intrusion Prevention System
ISN	Installation Services Node
ISP	Internet Service Provider
IT	Information Technology
JITC	Joint Interoperability Test Command
JRSS	Joint Regional Security Stack
LIS	Location Information Service
LMR	Land Mobile Radio
LTE	Long Term Evolution
MILSAT	Military Satellite
MLPP	Multi-Level Precedent & Preemption
MLSV	Multi-Level Secure Voice
MPGW	Mission Partner Gateway
MPLS	Multi-Protocol Label Switching
NENA	National Emergency Number Association
PE	Provide Edge
PSAP	Public Safety Answering Point
PSC	Public Safety Communications
PSTN	Public Switch Telephone Network
RTS	Real Time Service
SBC	Session Border Controller
SIP	Session Initiation Protocol
SSA	Single Security Architecture
SSG	Senior Steering Group
STEP	Strategic Tactical Entry Point
TDM	Time Division Multiplex
TPN	Tactical Processing Node
TSN	Tactical Services Node
UC	Unified Capabilities
VISP	Voice Internet Service Provider
VoSIP	Voice over Secure Internet Protocol
VRF	Virtual Routing & Forwarding