

KODIAK

LMR & LTE: A Multi-Network Architecture

Convergence and Migration / Overlap



- P25 specifies several service areas:
 - Voice – PTT Mission Support and Mission Critical
 - Mobility and Registration Services
 - Security Services
 - Supplementary Services
 - Data Bearer Services
- Which of these P25 Service areas do you use most?
- The “Killer LTE App” is MCPTT Voice, our focus



Network

- Coverage
- Extended coverage (COW, IOPS, WiFi, Satellite)
- Core Network Resiliency

Application



- High Availability
- Multi-site resiliency



Network

- Capacity - Carrier Aggregation
- eMBMS capability

Application



- RAN Aware Service delivery
- Multicast support
- Dynamic elastic scalability



Network

- Prioritization of traffic for Mission Critical users with QoS
- Preemption of resources for Mission Critical users

Application



- Application driven QoS, Priority and preemption
- Situational Awareness Engine
- Incident Management System



Network

- Network hardened for security
- 3GPP Driven Authentication
- Operational Security

Application



- Application authentication & End-to-end encryption
- FIPS 140-2 level 1
- Intrusion protection

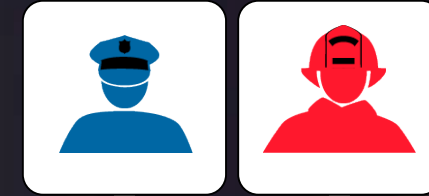




Mission Support

Mission Critical

Use Cases



MCPTT Software & Network Capabilities



High Availability



LMR Interoperability



QoS Prioritization



Isolated Ops (IOPS)



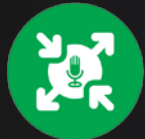
Direct Mode (ProSe)



MC Video



MC Data



App Program Interface



Location Support



End-to-End Security



Elastic Scalability



Broadcasts (eMBMS)

2016 – 2017

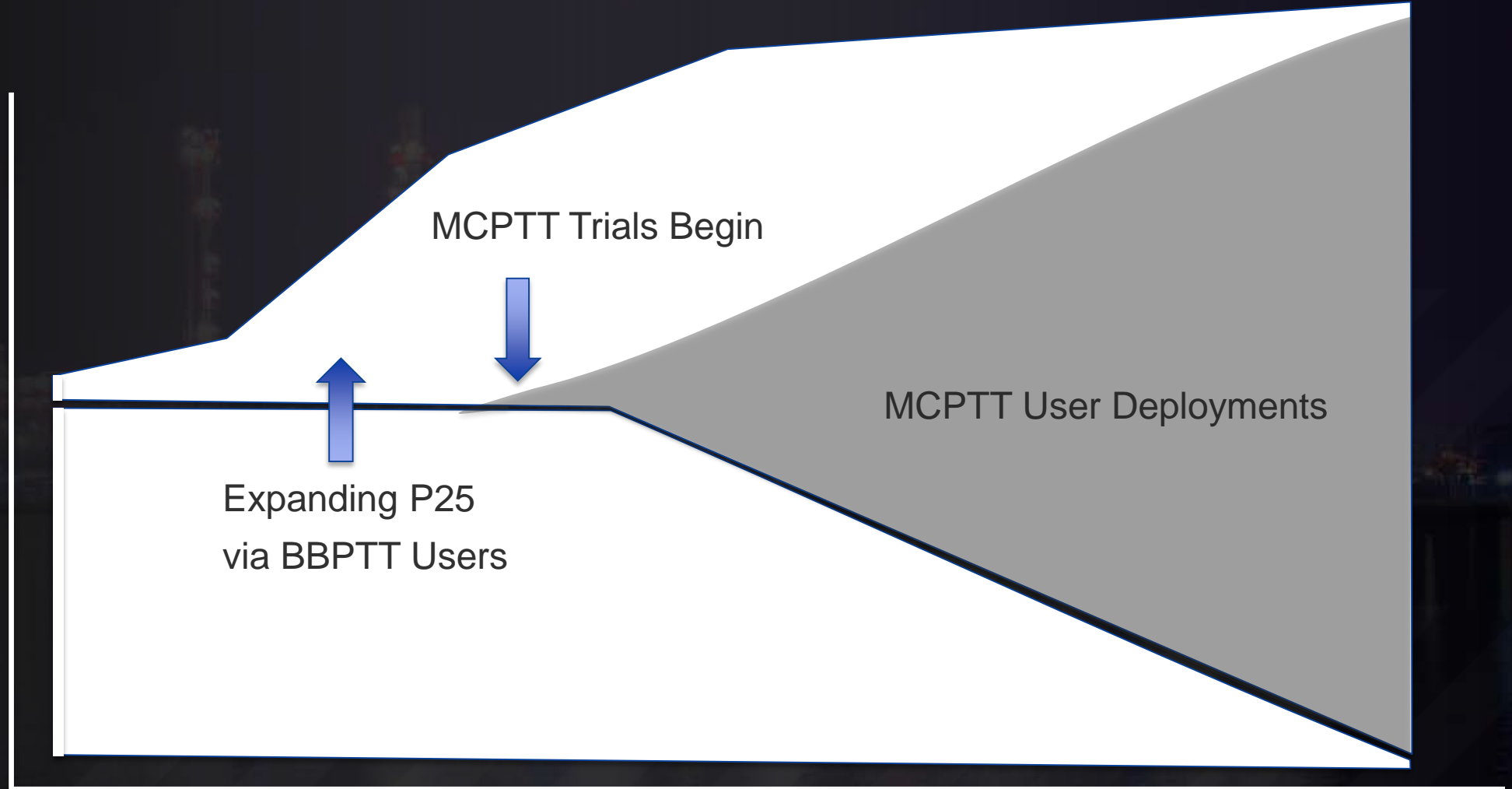
2017 – 2018

2019 – 2020

↑
of Subscribers

Broadband
PTT
Subscribers

P25
Subscribers



Time →

Migration from
P25 to MCPTT

- Convergence
 - Integration of technologies, processes and people
- Migration
 - Actual Implementation of Interoperability and training
- Overlap
 - Driven by how long migration takes, maturity of processes and technology

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Thank you

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