BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

Complainant,

v.

CENTURYLINK COMMUNICATIONS, LLC.,

Respondent.

EXHIBIT TO TESTIMONY OF

JAMES D. WEBBER

ON BEHALF OF STAFF OF WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

National Emergency Number Association Next Generation 911 Diagram

December 15, 2021
Understanding the System of Systems

NG9-1-1 CORE FUNCTIONS
NG9-1-1 Ecosystem

ESInet

NG9-1-1 Core Services
- LNG/LSRG
- ESRP/PRF
- LIS
- CIDB
- LPG

PSAP Networks
- Call Taker System
- Dispatch Console
- CAD
- Map Display
- Logging & Reporting

Extended Emergency Networks
- Homeland Security
- FEMA
- Town Hall

Communications Service Provider (CSP)
- TDM Networks
- IP Networks

Geographical Information System (GIS)
How NG9-1-1 Operates

Build Me First!

Wireline COs
Wireless MSCs
VoIP
Future Multimedia

Core NG9-1-1 System
ECRF, ESRP, LVF,
GIS, Policy Mgmt,
Process Mgmt

County A and
17 PSAPs
County B and
5 PSAPs
County C and
X PSAPs

Initial Deployment: Transitional LNGs
Later: Direct IP interfaces

Could be any combination of state, regional or county PSAPs
PSAP Deployment Options

- PSAP equipment is IP or NG9-1-1 capable before core NG9-1-1 is installed
- PSAP equipment or software upgraded when core NG9-1-1 is installed
- Multiple PSAPs deploy a hosted (shared) call handling system
- PSAPs use LPGs to interface to core NG9-1-1 system, operating temporarily as ‘legacy PSAPs’
- Any combination of the above
End-to-End IP - Timeframes

- Improved services are timeframe interdependent between carriers, other originating providers and NG9-1-1

Carriers
- Implement IMS
- IP interface

Carriers
- Implement MMES
- Multimedia ES

Public Safety
- Transition to NG9-1-1

Internet Providers
- IP based Multimedia?
  Soon after wide NG9-1-1 availability