



Comcast Digital Voice Service

Washington State Enhanced 9-1-1
Advisory Meeting

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- ✓ Terms and Definitions
- ✓ Classes of VoIP Telephony
- ✓ Comcast Digital Voice Equipment
- ✓ E-911 Support
- ✓ Contact Information

- ✓ “**VoIP**” stands for “**Voice over Internet Protocol**” – it is a description of the process for routing a digitized and packetized voice message using the IP format.
- ✓ Many press reports and public discussions have inaccurately modified the definition of **VoIP** to mean a telephone call that must traverse the public Internet.

- ✓ “VoIP” does **NOT** include a requirement that the digitized voice travel over the public Internet.

- ✓ Packetized data that travels over the public Internet is delivered on a “best efforts” basis.
 - No prioritization of data packets.....
“first-come first-served”
 - Use of the public Internet introduces the potential for packets to be delayed or to arrive out of order, which will contribute to low sound quality.

- ✓ There are two major “classes” of VoIP service:
 - 1) Those that use dedicated and integrated customer premises and head end equipment. Voice conversations travel over controlled networks.
 - 2) Those that are transmitted using a third party’s broadband connection. Voice conversations travel over the public Internet.

- ✓ Comcast Digital Voice Service is in the first class – we have an embedded network from the switching facility to the customer.



What Equipment Makes Comcast Digital Voice Service Work?

- ✓ Two Pieces Of Equipment Make Comcast Digital Voice work:
 - 1) **VoIP-enabled cable modem** – also called the Multi-Media Terminal Adapter (MTA). The cable modem is located in the subscriber's house as **Customer Premise Equipment** (CPE).
 - 2) **Soft Switch** - The soft switch is a specialized router located at the cable head end.
- ✓ Cable plant remains essentially unaltered by the addition of IP Voice to the system.

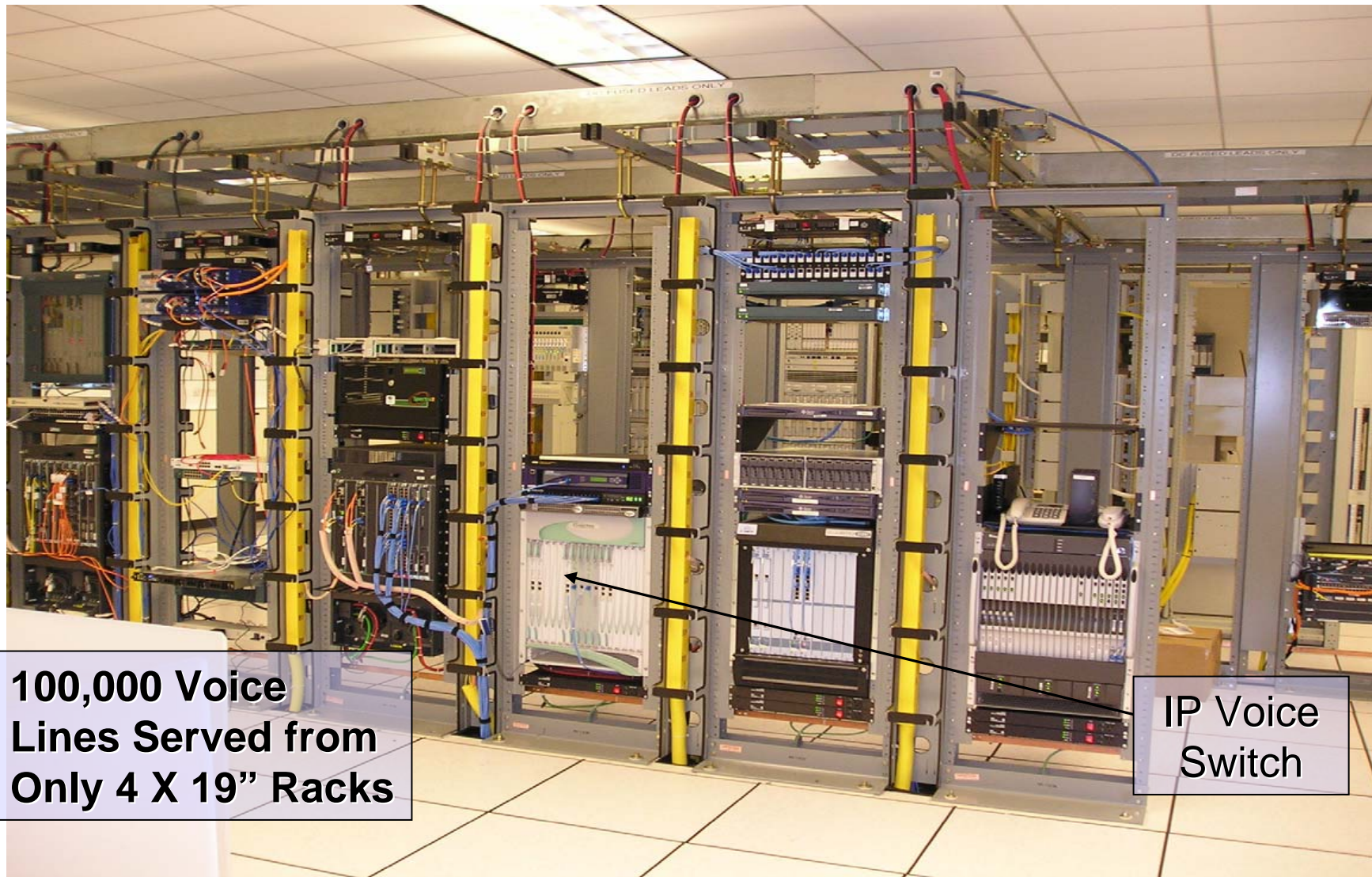


MTA - Touchstone™ Voice Modem TM402P





IP Voice Soft Switch Site



100,000 Voice Lines Served from Only 4 X 19" Racks

IP Voice Switch

✓ **E-911 Call Routing**

- Comcast Digital Voice 911 calls will be selectively routed to the appropriate PSAP over the existing 911 network and will be delivered with ANI and ALI information

✓ **Costs to PSAP's?**

- Comcast Digital Voice service does not require additional or upgraded PSAP equipment
- No additional training for PSAP staff

✓ **Mobile or nomadic telephone service?**

- Comcast Digital Voice service is not designed to be mobile or nomadic

- ✓ **Power outages?**
 - Comcast Digital Voice service has battery back-up

- ✓ **Support for TDD/TTY devices?**
 - Comcast Digital Voice will be TDD/TTY compatible

- ✓ **911 surcharge?**
 - Comcast will voluntarily collect and remit 911 surcharge

- ✓ Legal Demand Center (24x7 Emergency Assistance)
(800) 839-6707

- ✓ Trent Havins (Non-emergency Assistance)
 - (720) 267-2682
 - Trent_havins@cable.comcast.com

- ✓ E-911 Support Team (ALI Records)
 - E911_support@cable.comcast.com
 - Fax (720) 267-1026