Packet Clearing House

IETF 63 VoIPPeer BoF: PCH's Operational Experience with VoIP Peering

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Basis of PCH's Experience:

Global VoIP hotline phone system, operating on all seven continents for the past three years.

Roughly 2500 users in 1800 separate organizations, about half of whom are authenticated.

The 1800 participant organizations VoIP peer with each other to exchange calls.

PSTN gateways are operated by participants independently, not by the system operator.

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Main Points:

VoIP peering “just works.”

ENUM-or-equivalent helps a lot.

Dynamic routing would help a lot.

Internet exchange points are underlying infrastructure, different layer. Successful voice operators will be keenly aware of infrastructure requirements, but won’t make the mistake of thinking there are specific inter-layer ties.

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Observations:

ITU has dealt itself out of the picture, by being obstructionist.

All significant VoIP peering is occurring using non-ITU-delegated, non-e164.arpa ENUM domains.

Unification of these domains is a very high priority for everyone in the business.

VoIP peering is L5. IP peering is L3. There's no connection between the two.

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Beating that horse again:

The term “VoIP peering” creates confusion with IP peering

This leads people to the mistaken conclusion that VoIP peering has some direct relationship with Internet exchange points, where IP peering occurs.

We’ve seen this mistake before: NNTP

This is not to say that VoIP operators should ignore the basics of underlying infrastructure... that’s no more true than for, for example, email operators.

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Beating that horse's evil twin:

VoIP peering is no more dependent upon "gateways" or special-purpose, layer-boundary-violating middleboxes, than upon Internet exchange points.

If you think your customers need a middlebox to talk to someone else's customers, you're doing it wrong. Really wrong.