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IEPREP Topology Scenarios

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Status of this Memo

Abstract

This memo conveys simplistically the likely topological scenarios that may be encountered in reference to IEPREP phone calls. These scenarios should be used to focus the IEPREP Working Group during discussions and when writing requirements, gap analysis and other solutions documents.

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1.0 Introduction

This memo conveys simplistically the likely topological scenarios that may be encountered in reference to IEPREP phone calls. These scenarios should be used to focus the IEPREP Working Group during discussions and when writing requirements, gap analysis and other solutions documents.

There has been much confusion on the IEPREP list as well as within each meeting about the topologies IEPREP is considering. Hopefully this document will give each reader and author a reference set of named architectures.

This memo attempts to be agnostic with regard to IP signaling or control protocols (SIP, MEGACO, etc), as well as any underlying QOS mechanisms (Diffserv, RSVP, NSIS, etc).

1.1 Motivation

Simply put, to get everyone referencing the same (named) topologies in order to have useful and less confusing dialog to further this working group's efforts.

1.2 Changes from -00 version

This version greatly reduces the text of the overall document by removing all discussion of requirements and authentication & authorization. This is not a requirements document (therefore shouldn't state any), and the A&A text/discussion for each of the topologies, though necessary within the

WG, has been moved to another "ieprep-topology-implications" document.

1.3 Terms and Definitions

The following acronyms need to be exploded for clarity:

CSN = Circuit Switched Network

GW = Gateway (CSN to IP, or IP to CSN)

2.0 IEPREP Topologies

There are 4 often mentioned, but very little documented topologies discussed within this WG's efforts so far. The following subsections name and describe each of the topologies.

The 4 topologies are (quickly):

Topology "IP Bridging"

Topology "IP at the Start"

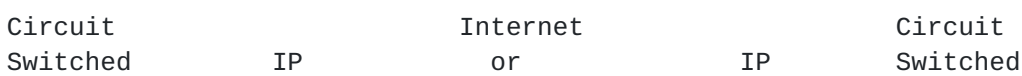
Topology "IP at the End"

Topology "End-to-End IP"

2.1 Topology "IP Bridging"

This topology is sometimes known as "IP in the Middle" of two CSNs. In this topology, a CSN phone of any type initiates (dials) a call (session) to another CSN phone with an IP core between the two CSNs.

This topology should simplistically look like this:



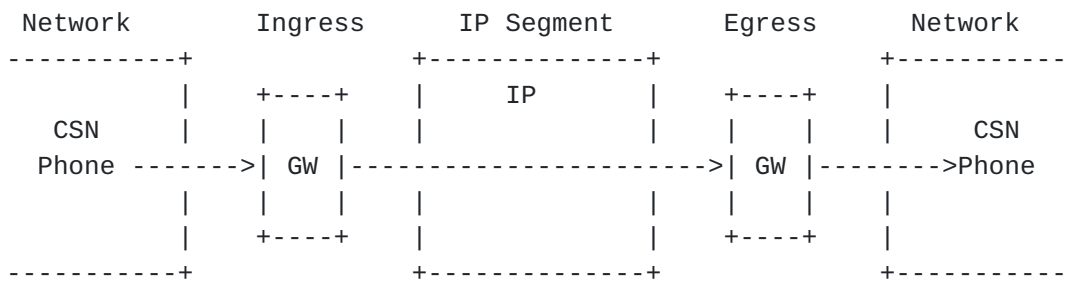


Figure 1. Topology "IP Bridging"

2.2 Topology "IP at the Start"

This topology has the initiating party placing (dialing) the call from an IP Phone (PDA or computer), and the called party residing in the CSN.

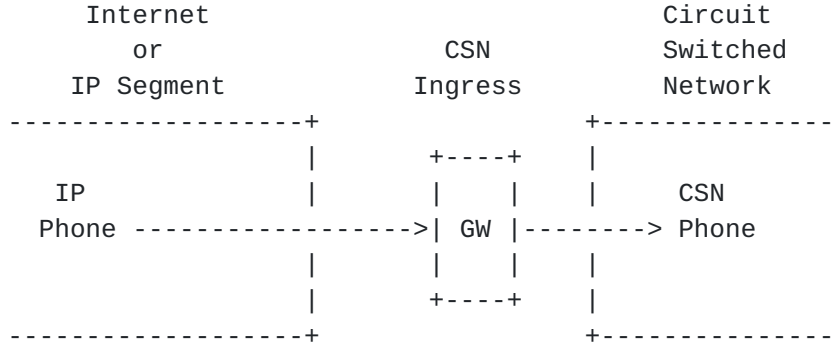
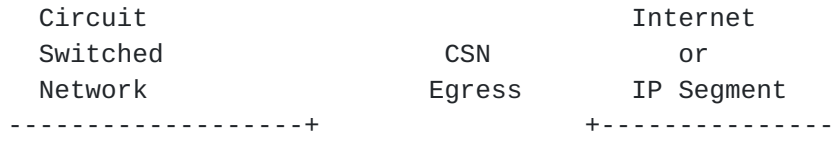


Figure 2. Topology "IP at the Start"

One key aspect of this topology is where the intelligence is for any prioritization of call/session handling. Initially, it cannot be assumed that the CSN Ingress GW is ETS or priority-aware.

2.3 Topology "IP at the End"

This topology has the calling party placing the call from a CSN phone, and the called party being in an IP network.



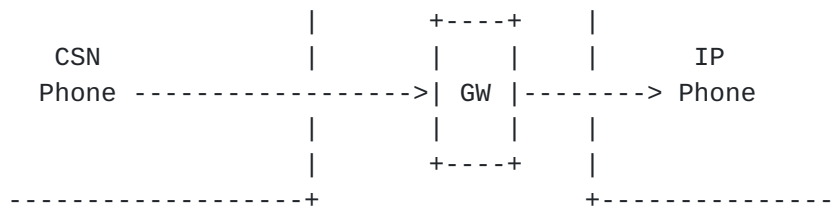


Figure 3. Topology "IP at the End"

2.4 Topology "End-to-End IP"

This topology has no circuit switched sections in the call path.

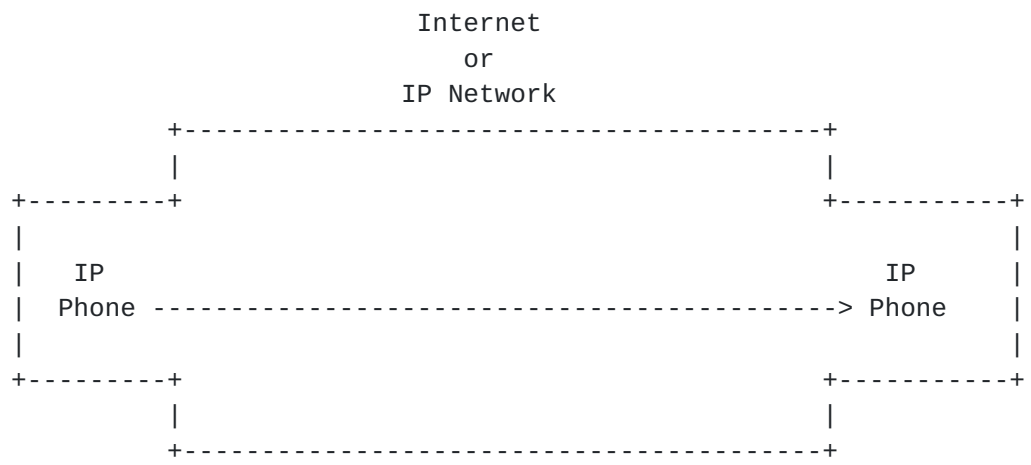


Figure 4. Topology "End to End IP"

3.0 Security Considerations

This document merely suggests a common naming convention within IEPREP WG discussions, therefore there are no special security considerations.

4.0 IANA Considerations

There are no IANA considerations within this document

5.0 Acknowledgements

To Scott Bradner and to Kimberly King for their comments and suggestions

6.0 References

none at this moment

7.0 Authors Information

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