

Internet Emergency Preparedness (IEPREP)  
Telephony Topology Terminology

Status of this Memo

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Abstract

This document defines the topology naming conventions that are to be used in reference to Internet Emergency Preparedness (IEPREP) phone calls. These naming conventions should be used to focus the IEPREP Working Group during discussions and when writing requirements, gap analysis and other solutions documents.

Table of Contents

1.	Introduction. . . . .	2
1.1	Motivation. . . . .	2
1.2	Terms and Definitions . . . . .	2
2.	IEPREP Topologies. . . . .	2
2.1	Topology "IP Bridging" . . . . .	3
2.2	Topology "IP at the Start". . . . .	3
2.3	Topology "IP at the End". . . . .	4
2.4	Topology "End-to-End IP". . . . .	4
3.	Security Considerations . . . . .	5
4.	IANA Considerations . . . . .	5
5.	Acknowledgements . . . . .	5
6.	References . . . . .	5
7.	Author's Address. . . . .	5
8.	Full Copyright Statement. . . . .	6

## 1. Introduction

This document defines the topology naming conventions that are to be used in reference to IEPREP phone calls. These naming conventions should be used to focus the IEPREP Working Group (WG) 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 Quality of Service (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 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. 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 to another CSN phone with an IP core between the two CSNs.

This topology should simplistically look like this:

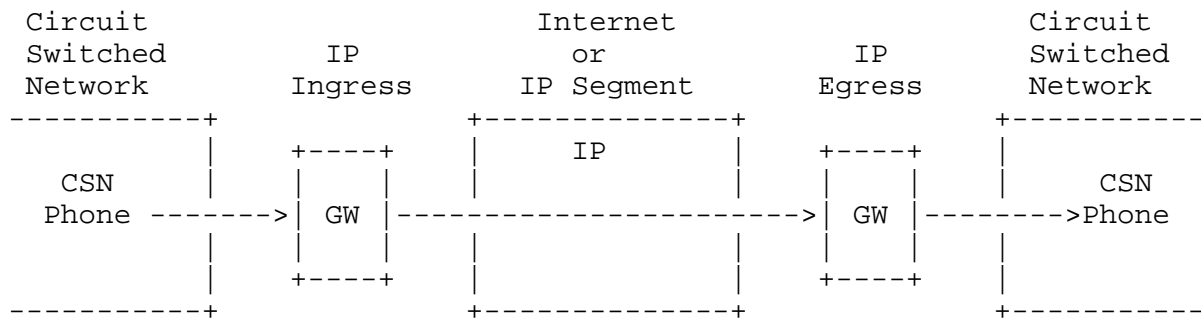


Figure 1. Topology "IP Bridging"

## 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.

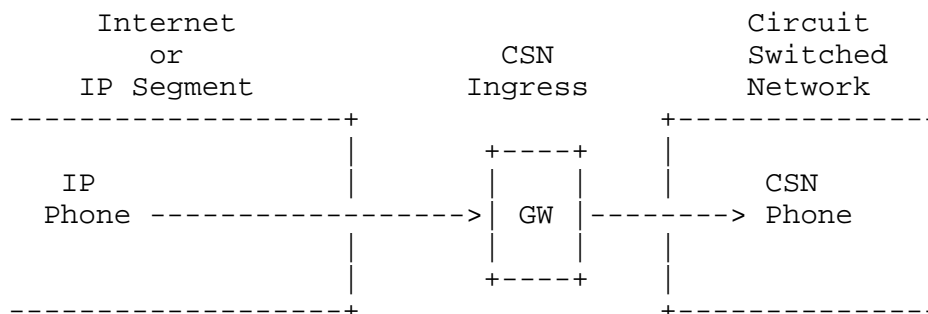


Figure 2. Topology "IP at the Start"

### 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.

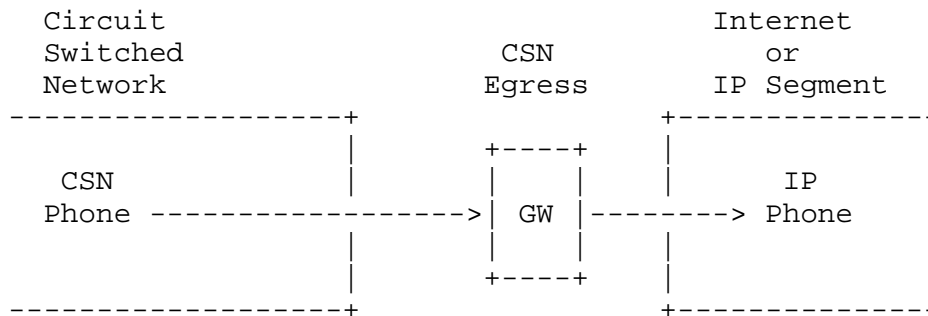


Figure 3. Topology "IP at the End"

### 2.4 Topology "End-to-End IP"

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

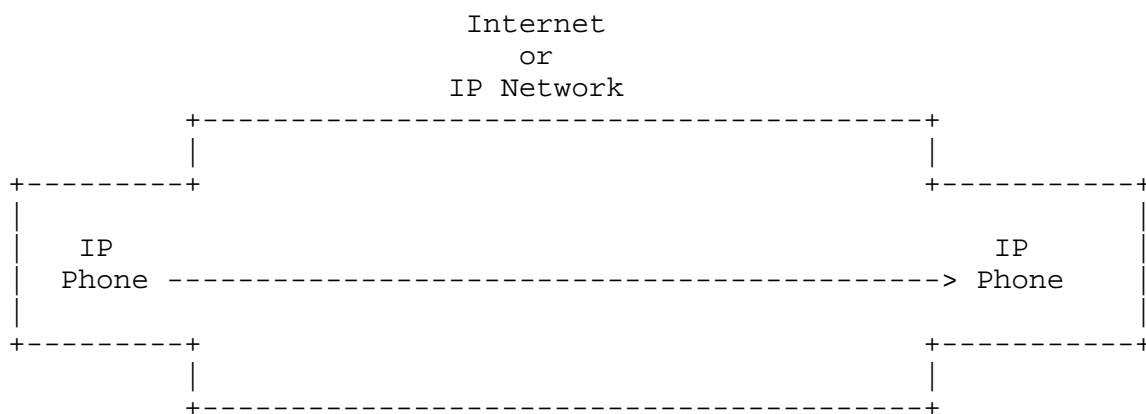


Figure 4. Topology "End to End IP"

Although shown as one large IP cloud here, the Internet is composed of a series of loosely connected IP domains. An End-to-End IP call will likely traverse a number of these domains and/or multiple network providers, which may impact the call.

### 3. Security Considerations

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

### 4. IANA Considerations

There are no IANA considerations within this document.

### 5. Acknowledgements

To Scott Bradner, Kimberly King and Mike Pierce for their comments and suggestions.

### 6. References

There are no references at the present time.

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