
SIP Proxy-to-Proxy extensions

W. Marshall, K. K. Ramakrishnan, E. Miller, G. Russell, B. Beser,
M. Mannette, K. Steinbrenner, D. Oran, J. Pickens, P. Lalwaney,
J. Fellows, D. Evans, K. Kelly, F. Andreassen

**AT&T, CableLabs, 3Com, Cisco, Com21, General Instrument,
Lucent Cable, NetSpeak, Telcordia**

July 1999

IETF Presentation

Proxy to Proxy SIP extensions

◆ Motivation

– Billing headers

- » Need to monitor and derive revenue from resource usage
- » ‘trusted information’ exchange across domains
- » Proxies have access to customer info (user identity, services subscribed, payment method)
- » Billing models can be complex, requiring billing info from multiple parties (split-charging for call forwarding, etc.)

– user=lnp-phone

- » Support for Local Number Portability
- » Needs to be done at originating proxy to support current PSTN interfaces
- » Eliminates redundant lookups downstream

New Header Requirements

◆ Billing headers

- Need a unique identifier that can be associated with the ‘trusted source’ of customer billing information.
- Why can’t we use Call-ID?
- Need a header that can carry information that defines a billable account, record keeping system, etc.
- Need a header that identifies the location where resource usage information is captured (Gate-Location).

◆ User=lnp-phone

- ‘user = phone’ insufficient for identifying different phone number formats
- Need a way to indicate originating proxy has expanded the Request-URI to be the LNP format of the dialed phone number

New header definitions

◆ Billing Information:

- Billing-ID = “DCS-Billing-ID” “:” 1*unreserved
- Billing-Info= “DCS-Billing-Info” “:” hostport [“/”Key] “<“Acct-Data“>”
- Gate-Location = “DCS-Gate-Location” “:” hostport “/” Gate-ID [Gate-Key]

◆ User-param:

- telephone-subscriber = global-phone-number | local-phone-number | augmented-phone-number
- user-param = “user=” (“ip” | “phone” | **“lnp-phone”**)

Security Considerations

- ◆ New headers MUST NOT be sent to User Agents. Only between Proxies.
- ◆ Sensitive information (billing info) SHOULD be passed on secure links.