



Cisco BTS 10200 Softswitch SIP Enhancements Feature Module

Revised: March 31, 2008

This feature module describes the Session Initiation Protocol (SIP) Enhancements feature for Release 6.0 of the Cisco BTS 10200 Softswitch.

Understanding the SIP Enhancements Feature

The SIP Enhancements feature enables the service provider to correlate the IP Multimedia Subsystem (IMS) charging information from other elements in the IMS system with the call detail record (CDR) provided by the Telephony Application Server (TAS). The correlation information includes a globally unique charging identifier that makes the billing effort easy. TAS is an application server which provides telephony features to subscribers through Serving Call Session Control Function (SCSCF) within an IMS network. It interfaces with SCSCF using the IP Multimedia Service Control (ISC) interface. The TAS uses the P-Charging-Vector header for IMS billing. The P-Charging-Vector header has the collection of charging information.

The IMS Charging Identity (ICID) value in the P-Charging-Vector header correlates the CDRs from different elements in the IMS system. TAS captures the ICID value in the P-Charging-Vector header of the initial INVITE request to set up a session. The captured ICID value is made available to the service provider through the CDR generated at TAS. If there is no P-Charging-Vector in the INVITE message, the ICID value is not reported in the CDR.

The TAS might receive the P-Charging-Vector header from SCSCF in the INVITE request, 1xx response, 2xx response, or BYE request. The TAS relays this header back to SCSCF as it is in the request/response received from the SCSCF. The TAS does not generate or modify the P-Charging-Vector.

This feature helps the subscriber to identify the called party. The P-Called-Party-ID has the SIP URI (address-of-record) associated with the Request-URI of the INVITE request received at the BTS. It is a header added to the SIP Invite message that goes out to a SIP subscriber, and it helps the subscriber identify the called party. This feature is useful when one subscriber has registered multiple identities.



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Prerequisites

The BTS captures the ICID value in the P-Charging-vector only when the BTS is configured as TAS.

Limitations

- The CDR can store ICID values that are up to 32 bytes in length.
- BTS provides the P-Called-Party-ID for SIP subscribers but not for SIP trunks.
- BTS supports P-Called-Party-ID for INVITE requests only.

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