

PBX QSIG Interoperability: Calling Name and Call Forward Do Not Work

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Introduction

When you use a Private Branch Exchange (PBX) connected to a Cisco CallManager through an E1 Q Interface Signalling Protocol (QSIG) in a Cisco voice gateway using Media Gateway Control Protocol (MGCP), the calling name is not displayed. Forwarded calls from different vendors are also dropped.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on Cisco CallManager 4.x.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

QSIG Protocol

The QSIG protocol, a series of international standards, defines services and signaling protocols for Private Integrated Services Networks (PISNs). These standards use Integrated Services Digital Network (ISDN) concepts and conform to the framework of International Standards for Open Systems Interconnection as defined by ISO/IEC. The QSIG protocol acts as a variant of ISDN D-channel voice signaling. The ISDN Q.921 and Q.931 standards provide the basis for QSIG protocol, which sets a worldwide standard for PBX

interconnection.

In a basic QSIG call, a user in a Private Integrated Services Network Exchange (PINX) can place a call to a user that is in a remote PINX. The called party receives the caller name or number as the call rings. The calling party receives the called name and number when the user phone rings in the remote PINX. All the features that are available as a PBX user operate transparently across the network. QSIG protocol provides supplementary and additional network features, as defined for PISNs, if the corresponding set of QSIG features are supported by both ends of the call.

Call Forward Does Not Work

When you use QSIG protocol version 2, if a Cisco IP phone forwards a call to another Cisco IP phone that is placed from a third party phone, the first phone call is dropped. Similarly, when a third party phone call is forwarded to another third party phone that is placed from a Cisco IP phone, the first phone call is dropped.

Calling Name Not Forwarded

When you use QSIG protocol and you call a Cisco IP phone from a phone connected to a third party PBX or a third party phone from a Cisco IP phone, the third party phone calling name is shown in the Cisco IP phone, but the Cisco IP phone calling name is not shown in the third party phone. In other words, calling name information is not passed from Cisco CallManager to the third party PBX. This issue is documented in Cisco bug ID CSCee08424 (registered customers only) .

Solution

These problems can occur if the facility message from third party PBX cannot be decoded by the Cisco CallManager.

Change ASN.1 ROSE OID Encoding

In order to create Cisco CallManager compatibility with your version of the QSIG protocol, configure the ASN.1 ROSE OID encoding and QSIG Variant service parameters. The problem described in this document can be solved when you change the **ASN.1 ROSE OID** encoding to **Use Global Value (ECMA)**. Complete the procedure in this section in order to change the ASN.1 ROSE OID.

Note: The ASN.1 ROSE OID parameter specifies how to encode the Invoke Object ID (OID) for Remote Operations Service Element (ROSE) operations. Use Local Value (supported by most telephony systems) should be used when you use QSIG Variant ISO. Use Global Value (ISO) should be used only if the connected PBX does not support Local Value. Use Global Value (ECMA) should be used if QSIG Variant is ECMA. This is a required field. The default is Use Local Value.

1. Go to the CallManager Administration page and choose **Services > Service Parameters** in order to go to **System Parameters**.
2. Go to the **Advanced** tab.
3. Find the Parameter Name **ASN.1 ROSE OID Encoding** under Clusterwide Parameters (Device – PRI and MGCP gateway) and change the parameter value to **Use Global Value (ECMA)**. This is used if the Q.SIG Variant service parameter is set to ECMA (Protocol Profile **0x91**).

Note: The default value for **ASN.1 ROSE OID Encoding** is **Use Local Value**, which is supported by most telephony systems and must be used when the Q.SIG Variant service parameter is set to ISO (Protocol Profile **0x9F**).

4. Click **Update**.

Clusterwide Parameters (Device - PRI and MGCP Gateway)		
Parameter Name	Parameter Value	Suggested Value
ASN.1 ROSE OID Encoding*	Use Global Value (ECMA)	Use Local Value

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Related Information

- [Configure Q.SIG PRI Trunks between Call Manager and Avaya S8700/G650 with Unity Voice Mail Integration](#)
- [Voice Technology Support](#)
- [Voice and Unified Communications Product Support](#)
- [Recommended Reading: Troubleshooting Cisco IP Telephony](#)
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