



SIP RFC 2782 Compliance with DNS SRV Queries

Last Updated: December 1, 2012

Effective with Cisco IOS XE Release 2.5, the Domain Name System Server (DNS SRV) query used to determine the IP address of the user endpoint is modified in compliance with RFC 2782 (which supersedes RFC 2052). The DNS SRV query prepends the protocol label with an underscore "_" character to reduce the risk of duplicate names being used for unrelated purposes. The form compliant with RFC 2782 is the default style.

- [Finding Feature Information, page 1](#)
- [Prerequisites SIP RFC 2782 Compliance with DNS SRV Queries, page 1](#)
- [Information SIP RFC 2782 Compliance with DNS SRV Queries, page 2](#)
- [How to Configure SIP-RFC 2782 Compliance with DNS SRV Queries, page 2](#)
- [Verifying, page 4](#)
- [Feature Information for SIP RFC 2782 Compliance with DNS SRV Queries, page 4](#)

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table at the end of this module.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Prerequisites SIP RFC 2782 Compliance with DNS SRV Queries



REVIEW DRAFT - CISCO CONFIDENTIAL

Cisco Unified Border Element

- Cisco IOS Release 12.2(8)T or a later release must be installed and running on your Cisco Unified Border Element.

Cisco Unified Border Element (Enterprise)

- Cisco IOS XE Release 2.5 or a later release must be installed and running on your Cisco ASR 1000 Series Router.

Information SIP RFC 2782 Compliance with DNS SRV Queries

Session Initiation Protocol (SIP) on Cisco VoIP gateways uses the DNS SRV query to determine the IP address of the user endpoint. The query string has a prefix in the form of "protocol.transport." and is attached to the fully qualified domain name (FQDN) of the next hop SIP server. This prefix style originated in RFC 2052. Beginning with Cisco IOS XE Release 2.5, a second style, in compliance with RFC 2782, prepends the protocol label with an underscore "_"; for example, "_protocol._transport." The addition of the underscore reduces the risk of the same name being used for unrelated purposes. The form compliant with RFC 2782 is the default style.

How to Configure SIP-RFC 2782 Compliance with DNS SRV Queries

- [Configuring DNS Server Query Format RFC 2782 Compliance with DNS SRV Queries, page 2](#)

Configuring DNS Server Query Format RFC 2782 Compliance with DNS SRV Queries

Compliance with RFC 2782 changes the DNS SVR protocol label style. RFC 2782 updates RFC 2052 by prepending the protocol label with an underscore character. The prefix format compliant with RFC 2782 is the default format. However, backward compatibility is available, allowing newer versions of Cisco IOS software to work with older networks that support only RFC 2052 DNS SVR prefix style.

To configure the format of DNS SRV queries to comply with RFC 2782, complete this task.



Note

You do not have to perform this task if you want to use the default RFC 2782 format.

REVIEW DRAFT - CISCO CONFIDENTIAL**SUMMARY STEPS**

1. **enable**
2. **configure terminal**
3. **interface** *type number*
4. **sip-ua**
5. **srv version** {1 | 2}
6. **exit**

DETAILED STEPS

Command or Action	Purpose
Step 1 enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2 configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3 interface <i>type number</i> Example: Router(config)# interface gigabitethernet 0/0/0	Configures an interface type and enters interface configuration mode
Step 4 sip-ua Example: Router(config-if)# sip-ua	Enters SIP UA configuration mode.
Step 5 srv version {1 2} Example: Router(config-sip-ua)# srv version 2	Generates DNS SRV queries in either RFC 2782 or RFC 2052 format. <ul style="list-style-type: none"> • 1 --The query is set to the domain name prefix of protocol.transport. (RFC 2052 style). • 2 --The query is set to the domain name prefix of _protocol._transport. (RFC 2782 style). This is the default.

REVIEW DRAFT - CISCO CONFIDENTIAL

Command or Action	Purpose
Step 6 exit Example: Router(config-sip-ua)# exit	Exits the current configuration mode.

Verifying

The following example shows sample is output from the **show sip-ua status** command used to verify the style of DNS server queries:

```
Router# show sip-ua status
SIP User Agent Status
SIP User Agent for UDP : ENABLED
SIP User Agent for TCP : ENABLED
SIP User Agent bind status(signaling): DISABLED
SIP User Agent bind status(media): DISABLED
SIP max-forwards : 6
SIP DNS SRV version: 1 (rfc 2052)
```

Feature Information for SIP RFC 2782 Compliance with DNS SRV Queries

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

ISR feature history table entry

REVIEW DRAFT - CISCO CONFIDENTIAL**Table 1** *Feature Information for SIP: RFC 2782 Compliance with DNS SRV Queries*

Feature Name	Releases	Feature Information
SIP: RFC 2782 Compliance of DNS SRV Queries	12.2(8)T, 12.2(11)T, 12.2(15)T	<p>Effective with Cisco IOS XE Release 2.5, the DNS SRV query used to determine the IP address of the user endpoint is modified in compliance with RFC 2782 (which supersedes RFC 2052). The DNS SRV query prepends the protocol label with an underscore "_" character to reduce the risk of duplicate names being used for unrelated purposes. The form compliant with RFC 2782 is the default style.</p> <p>The following command was introduced or modified: srv version.</p>

ASR feature history table entry

Table 2 *Feature Information for SIP: RFC 2782 Compliance with DNS SRV Queries*

Feature Name	Releases	Feature Information
SIP: RFC 2782 Compliance of DNS SRV Queries	Cisco IOS XE Release 2.5	<p>Effective with Cisco IOS XE Release 2.5, the DNS SRV query used to determine the IP address of the user endpoint is modified in compliance with RFC 2782 (which supersedes RFC 2052). The DNS SRV query prepends the protocol label with an underscore "_" character to reduce the risk of duplicate names being used for unrelated purposes. The form compliant with RFC 2782 is the default style.</p> <p>The following command was introduced or modified: srv version.</p>

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks.

REVIEW DRAFT - CISCO CONFIDENTIAL

Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© 2012 Cisco Systems, Inc. All rights reserved.