



# IPv6 Services: AAAA DNS Lookups over an IPv6 Transport

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IPv6 basic connectivity can be enhanced by configuring support for AAAA record types in the DNS name-to-address and address-to-name lookup processes.

- [Finding Feature Information, page 1](#)
- [Information About IPv6 Services: AAAA DNS Lookups over an IPv6 Transport, page 1](#)
- [Additional References for IPv6 Services: AAAA DNS Lookups, page 2](#)
- [Feature Information for IPv6 Services: AAAA DNS Lookups over an IPv6 Transport, page 3](#)

## 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](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

## Information About IPv6 Services: AAAA DNS Lookups over an IPv6 Transport

### DNS Lookups over for IPv6 Transport

IPv6 supports DNS record types that are supported in the DNS name-to-address and address-to-name lookup processes. The DNS record types support IPv6 addresses. IPv6 also supports the reverse mapping of IPv6 addresses to DNS names.

The NAPTR record aids in the standardization of URNs. NAPTR records map between sets of URNs, URLs and plain domain names and suggest to clients the protocols available for communication with the mapped resource. Each NAPTR record contains a service name, a set of flags, a regular expression rule, an order value, a preference and a replacement pattern. Multiple records can be chained together in a cascade to rewrite URIs. These cascading rules have been standardized in RFC2915 and RFC3403.

The table below lists the IPv6 DNS record types.

**Table 1: IPv6 DNS Record Types**

Record Type	Description	Format
AAAA	Maps a hostname to an IPv6 address. (Equivalent to an A record in IPv4.)	www.abc.test AAAA 3FFE:YYYY:C18:1::2
PTR	Maps an IPv6 address to a hostname. (Equivalent to a PTR record in IPv4.)  <b>Note</b> Cisco software supports resolution of PTR records for the IP6.INT domain.	200000000000000000000000100081c0yyyyeff3ip6int PTR www.abc.test
NAPTR	The combination of NAPTR records with Service Records (SRV) allows the chaining of multiple records to form complex rewrite rules which produce new domain labels or Uniform Resource Identifiers (URIs).	<<please provide format>>  The DNS type code for the NAPTR record is 35.

## Additional References for IPv6 Services: AAAA DNS Lookups

### Related Documents

Related Topic	Document Title
IPv6 addressing and connectivity	<i>IPv6 Configuration Guide</i>
IPv4 services configuration	<i>IP Application Services Configuration Guide</i>
Cisco IOS commands	<a href="#">Cisco IOS Master Commands List, All Releases</a>
IPv6 commands	<i>Cisco IOS IPv6 Command Reference</i>
Cisco IOS IPv6 features	<a href="#">Cisco IOS IPv6 Feature Mapping</a>

**Standards and RFCs**

Standard/RFC	Title
RFCs for IPv6	<i>IPv6 RFCs</i>

**MIBs**

MIB	MIBs Link
None.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

**Technical Assistance**

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	<a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a>

## Feature Information for IPv6 Services: AAAA DNS Lookups over an IPv6 Transport

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](http://www.cisco.com/go/cfn). An account on Cisco.com is not required.

**Table 2: Feature Information for IPv6 Services: AAAA DNS Lookups over an IPv6 Transport**

Feature Name	Releases	Feature Information
IPv6 Services: DNS Lookups over an IPv6 Transport	12.2(8)T 12.2(25)SED 12.2(25)SG 12.2(33)SRA 12.2(17a)SX1 15.0(2)SG 15.3(1)S Cisco IOS XE Release 2.1 3.2.0SG 15.2(1)E	IPv6 supports this feature.  No commands were introduced or modified.  In Cisco IOS XE Release 3.8S, support was added for the Cisco ISR 4400 Series Routers.  In Cisco IOS XE Release 3.9S, support was added for the Cisco CSR 1000V.