



# ATM SVC Troubleshooting Enhancements

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## Feature History

Release	Modification
12.2(8)T	This feature was introduced.

This document describes the ATM SVC Troubleshooting Enhancements feature in Cisco IOS Release 12.2(8)T. It includes the following sections:

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## Feature Overview

The ATM SVC Troubleshooting Enhancements feature introduces two new debug commands: **debug atm native** and **debug atm nmba**. These commands can be used to troubleshoot ATM switched virtual circuits (SVCs). The **debug atm nmba** and **debug atm native** commands are used to debug problems with Resource Reservation Protocol (RSVP) SVC creation and teardown. The **debug atm native** command can also be used to debug problems with SVCs created using static maps.

## Benefits

The ATM SVC Troubleshooting Enhancements feature provides two debug commands that can be used to troubleshoot ATM SVCs that were created using static maps or RSVP.

## Restrictions

The **debug atm nmba** command can be used only to debug RSVP SVCs. The **debug atm native** command can be used only to debug problems with RSVP SVCs or SVCs that were created using static maps.

## Related Documents

- *Cisco IOS Wide-Area Networking Configuration Guide*, Release 12.2
- *Cisco IOS Wide-Area Networking Command Reference*, Release 12.2

## Supported Platforms

- Cisco 2600 series
- Cisco 3620
- Cisco 3631
- Cisco 3640
- Cisco 3660
- Cisco 3725
- Cisco 3745
- Cisco 7200 series
- Cisco 7500 series
- Cisco MC3810 series
- Universal Router Module (URM) for Cisco IGX 8400

### Determining Platform Support Through Cisco Feature Navigator

Cisco IOS software is packaged in feature sets that support specific platforms. To get updated information regarding platform support for this feature, access Cisco Feature Navigator. Cisco Feature Navigator dynamically updates the list of supported platforms as new platform support is added for the feature.

Cisco Feature Navigator is a web-based tool that enables you to quickly determine which Cisco IOS software images support a specific set of features and which features are supported in a specific Cisco IOS image. You can search by feature or release. Under the release section, you can compare releases side by side to display both the features unique to each software release and the features in common.

To access Cisco Feature Navigator, you must have an account on Cisco.com. If you have forgotten or lost your account information, send a blank e-mail to [cco-locksmith@cisco.com](mailto:cco-locksmith@cisco.com). An automatic check will verify that your e-mail address is registered with Cisco.com. If the check is successful, account details with a new random password will be e-mailed to you. Qualified users can establish an account on Cisco.com by following the directions at <http://www.cisco.com/register>.

Cisco Feature Navigator is updated regularly when major Cisco IOS software releases and technology releases occur. For the most current information, go to the Cisco Feature Navigator home page at the following URL:

<http://www.cisco.com/go/fn>

## Supported Standards, MIBs, and RFCs

### Standards

*API Semantics for Native ATM Services*, ATM Forum, February 1999

### MIBs

No new or modified MIBs are supported by this feature.

To obtain lists of supported MIBs by platform and Cisco IOS release, and to download MIB modules, go to the Cisco MIB website on Cisco.com at the following URL:

<http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>

### RFCs

No new or modified RFCs are supported by this feature.

## Prerequisites

The tasks in this document assume that ATM SVCs or RSVP SVCs are already created.

## Configuration Tasks

None.

## Monitoring and Maintaining ATM SVCs

To monitor and maintain RSVP SVCs or ATM SVCs that were created using static maps, use the following commands in privileged EXEC mode:

Command	Purpose
Router# <code>debug atm native</code> {[api]   [conn]   [error]   [filter]}	Displays Native ATM API events.
Router# <code>debug atm nbma</code> [api]	Displays NBMA API events during the creation of RSVP SVCs.

# Configuration Examples

None.

# Command Reference

This section documents new commands. All other commands used with this feature are documented in the Cisco IOS Release 12.2 command reference publications.

- [debug atm native](#)
- [debug atm nbma](#)

# debug atm native

To display ATM switched virtual circuit (SVC) signaling events, use the **debug atm native** command in privileged EXEC configuration mode. To disable the debugging output, use the **no** form of this command.

```
debug atm native {[api] | [conn] | [error] | [filter]}
```

```
no debug atm native
```

## Syntax Description

<b>api</b>	Native ATM application program interface (API). Displays events that occur as a result of the exchange between the native ATM API and the signaling API.
<b>conn</b>	Native ATM connection manager. Displays internal connection manager events for the native ATM API.
<b>error</b>	Native ATM error. Displays errors that occur during the setup of an ATM SVC.
<b>filter</b>	Native ATM filter. Displays the internal NSAP filter events of the native ATM API.

## Command Modes

Privileged EXEC

## Command History

Release	Modification
12.2(8)T	This command was introduced.

## Usage Guidelines

Native ATM API is the layer above the signaling API. Static map and Resource Reservation Protocol (RSVP) clients use the native ATM API to interact with the signaling API to create ATM SVCs.

Use the **debug atm native** command to diagnose problems in the creation of static map and RSVP ATM SVCs.

## Examples

The following example shows sample output for the **debug atm native** command with the **api** keyword:

```
Router# debug atm native api

0:24:59:NATIVE ATM :associate endpoint
00:24:59:NATIVE ATM :ID (3) prep outgoing call, conn_type 0
00:24:59:NATIVE ATM :ID (3) set connection attribute for 5
00:24:59:NATIVE ATM :ID (3) query connection attribute 8
00:24:59:NATIVE ATM :ID (3) set connection attribute for 8
00:24:59:NATIVE ATM :ID (3) set connection attribute for 9
00:24:59:NATIVE ATM :ID (3) set connection attribute for 10
00:24:59:NATIVE ATM :ID (3) set connection attribute for 7
00:24:59:NATIVE ATM :ID (3) set connection attribute for 6
00:24:59:NATIVE ATM :ID (3) set connection attribute for 2
00:24:59:NATIVE ATM :ID (3) set connection attribute for 0
00:24:59:NATIVE ATM :ID (3) query connection attribute 12
```

**debug atm native**

```
00:24:59:NATIVE ATM :ID (3) set connection attribute for 12
00:24:59:NATIVE ATM :ID (3) query connection attribute 13
00:24:59:NATIVE ATM :ID (3) set connection attribute for 13
00:24:59:NATIVE ATM :ID (3) connect outgoing call
00:24:59:NATIVE ATM :ID (3) callback, CONNECT received
```

# debug atm nbma

To display setup and teardown events for ATM switched virtual circuits (SVCs) configured using the Resource Reservation Protocol (RSVP), use the **debug atm nbma** command in privileged EXEC mode. To disable the debugging output, use the **no** form of this command.

**debug atm nbma [api]**

**no debug atm nbma**

## Syntax Description

<b>api</b>	(Optional) Nonbroadcast multiaccess (NBMA) ATM application program interface (API). Displays events that occur as a result of the exchange between RSVP and the NBMA API.
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## Defaults

No default behavior or values.

## Command Modes

Privileged EXEC

## Command History

Release	Modification
12.2(8)T	This command was introduced.

## Usage Guidelines

Use the **debug atm nbma** command to diagnose problems in the creation of RSVP SVCs.

The RSVP application creates SVCs by using the NBMA API. The **debug atm nbma** command with the **api** keyword displays events that occur as a result of the exchange between RSVP and the NBMA API.

## Examples

The following example shows sample output for the **debug atm nbma** command:

```
Router# debug atm nbma api

00:52:50:NBMA-ATM-API - atm_setup_req
00:52:50:NBMA_ATM-API - nbma_atm_fill_blli
00:52:50:NBMA_ATM-API - nbma_atm_fill_bhli
00:52:50:NBMA_ATM-API - nbma_atm_callbackMsg - NATIVE_ATM_OUTGOING_CALL_ACTIVE
00:52:50:NBMA_ATM-API - rcv_outgoing_call_active
00:52:50:NBMA_ATM-API - nbma_svc_lookup
```

■ debug atm nbma