

# Collect Expressway/VCS Diagnostic Log for Expressway MRA

## Contents

[Introduction](#)

[Prerequisites](#)

[Requirements](#)

[Components Used](#)

[Background Information](#)

[Jabber MRA via Expressway Non-SSO](#)

[Expressway-Core](#)

[Expressway-Edge](#)

[Jabber MRA via Expressway SSO-Enabled](#)

[Expressway-Core](#)

[Expressway-Edge](#)

[IP Phones 78XX/88XX and DX Series Endpoints MRA via Expressway](#)

[Expressway-Core](#)

[Expressway-Edge](#)

[Related Information](#)

## Introduction

This document describes how to enable specific debug logs when you troubleshoot SSO and SSO-enabled Jabber and non-Jabber Mobile and MRA via Expressway/VCS.

## Prerequisites

## Requirements

Cisco recommends that you have knowledge of these topics:

- Have installed Expressway-Core/Video Control Server (VCS)-Control and Expressway-Edge/VCS-Edge
- Have applied the appropriate release and option keys on the Expressway/VCS Core and Expressway/VCS Edge
- Have configured Expressway Mobile and Remote Access (MRA)
- Have access to the Expressway/VCS Core and Expressway/VCS Edge with an administrator account by the web interface

---

**Note:** Navigate to the [Expressway MRA deployment guides](#) for more information.

---

## Components Used

The information in this document is based on these software versions:

- Expressway/VCS version X8.10.X, X8.11.X, X12.5.X, X12.6.X, X12.7.X, and X14.X.X
- Expressway/VCS version X8.X.X and X14.X.X releases

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, ensure that you understand the potential impact of any command.

---

**Note:** The words, Expressway and VCS, are interchangeable. From this point on, Expressway is used.

---

## Background Information

The non-Jabber devices are the 78XX/88XX IP phones and DX Series endpoints. With regards to the problems with Jabber and non-Jabber MRA via Expressway/VCS, you can enable debug logs on the Expressway/VCS servers, reproduce the problem, and upload the logs to the case which expedites the troubleshoot process, and ultimately, the case resolution. These problems include, but are not limited to, Jabber MRA login failure, specific Jabber service(s) that fails to register, no-way or one-way audio, and so on.

For non-Single Sign On (SSO) and SSO-enabled MRA via Expressway, provide these details for the affected users:

- Username
- Device name
- The timestamp of the log in
- The timestamp of the error received
- The error message received

For no-way audio or one-way audio MRA calls via Expressway, provide this information:

- Calling party device name and extension.
- Called party device name and extension.
- Call flow.
- The direction of the audio failure, for example, one-way or no-way.
- The timestamp of the call placed.

---

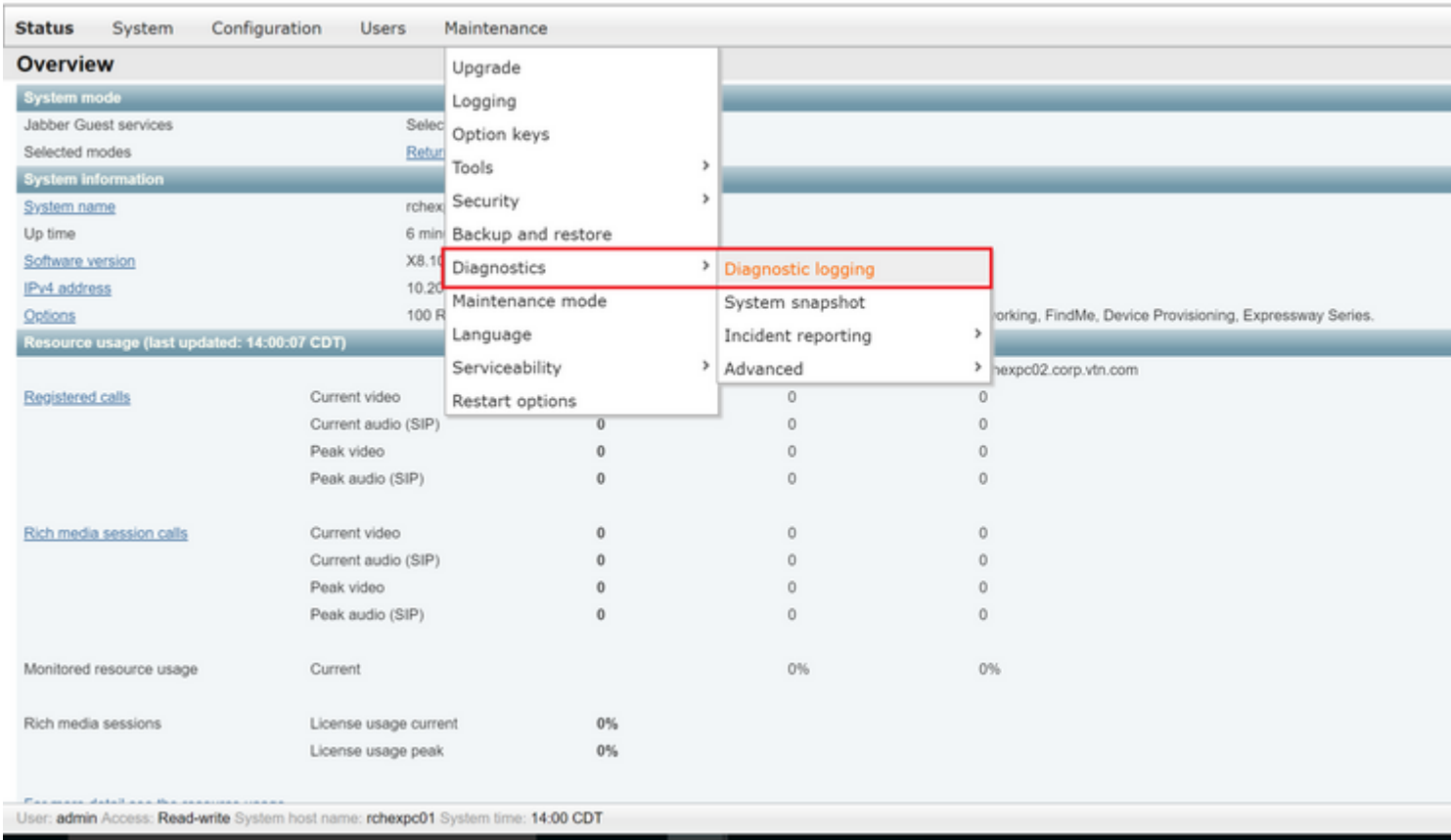
**Note:** If the Expressway-Core and Expressway-Edge servers are clustered, for example, more than one Expressway-Core and Expressway-Edge servers, perform the log capture only on the primary Expressway-Core and Expressway-Edge servers. After the problem is reproduced, you can download the logs from the primary Expressway-Core and Expressway-Edge servers. Then, log into the secondary Expressway-Core and Expressway-Edge servers and download the logs. If you have multiple Expressway-Core and Expressway-Edge servers, repeat this step for the rest of your secondary Expressway-Core and Expressway-Edge servers.

---

## Jabber MRA via Expressway Non-SSO

### Expressway-Core

Step 1. Navigate to **Maintenance > Diagnostics > Diagnostic logging** as shown in the image.

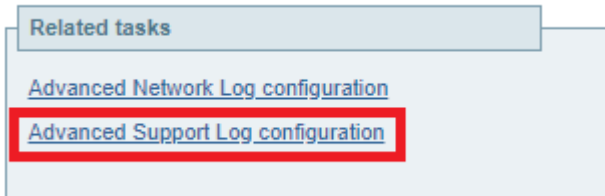


The screenshot shows the Cisco Expressway-C Overview page. A navigation menu is open, showing options like Upgrade, Logging, Option keys, Tools, Security, Backup and restore, Diagnostics, Maintenance mode, Language, Serviceability, and Restart options. The 'Diagnostics' menu item is highlighted with a red box, and its sub-menu is visible, with 'Diagnostic logging' highlighted in orange. The main content area shows system information and resource usage tables.

Resource usage (last updated: 14:00:07 CDT)			
<b>Registered calls</b>			
Current video			
Current audio (SIP)	0	0	0
Peak video	0	0	0
Peak audio (SIP)	0	0	0
<b>Rich media session calls</b>			
Current video	0	0	0
Current audio (SIP)	0	0	0
Peak video	0	0	0
Peak audio (SIP)	0	0	0
<b>Monitored resource usage</b>			
Current		0%	0%
<b>Rich media sessions</b>			
License usage current		0%	
License usage peak		0%	

User: admin Access: Read-write System host name: rchexpc01 System time: 14:00 CDT

Step 2. Choose **Advanced Support Log configuration** at the bottom of the page as shown in the image.



The screenshot shows the 'Related tasks' section with two links: [Advanced Network Log configuration](#) and [Advanced Support Log configuration](#). The second link is highlighted with a red box.

Step 3. Mark the checkboxes as shown in the image.

- developer.edgeconfigprovisioning
- developer.edgeconfigprovisioning.uds
- developer.xcp
- developer.xcp.cm
- developer.xcp.jabber

Step 4. Choose **Set to debug** at the bottom of the page as shown in the image.

Support Log configuration		
Name	Level	Actions
<input type="checkbox"/> developer.vrbotenv	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrbindservice_fm_lmtd	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> developer.vrse	DEBUG	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> developer.vrse.cm	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrse.federation	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> developer.vrse.labber	DEBUG	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.administration	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.alternates	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.apache	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.b2bvacalls	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.cafestatus	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.cdr	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.cishers	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.cms	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.collectstatus	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.commandadapter	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.credential	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.cuom	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.cuom.config	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.edoeeauth	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.edoeeconfigpartitioning	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.edoeeanagement	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.firewall	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.gotoml	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.hfioallovdsl	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.hfioocrstatus	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.hfiooserver	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.vrsmq.lison2oml	INFO	<a href="#">View/Edit</a>

**Note:** The Expressway-Core and Expressway-Edge servers raise an alarm once one or more logs are set to debug. This alarm persists until the log is reset to info. You see the alarm as shown in the image.

<input type="checkbox"/>	Verbose log levels configured	One or more modules of the Network Log or Support Log are set to a level of Debug or Trace	Raised	Warning	This system	Network Log and Support Log modules should be set to a level of Info, unless advised otherwise by your Cisco support representative. If diagnostic logging is in progress they will be reset automatically when diagnostic logging is stopped	2018-05-06 13:53:31
--------------------------	-------------------------------	--	--------	---------	-------------	---	---------------------

Step 5. Choose **Diagnostics** at the top-right hand of the page as shown in the image.

You are here: [Maintenance](#) **[Diagnostics](#)** [Advanced](#) Support Log configuration

Step 6. Mark the checkbox **Take tcpdump while logging** as shown in the image.

Logging status

Started logging at: Monday 23rd of April 2018 02:00:31 PM (UTC+Central) logging started by admin@64.101.147.132

Stopped logging at: Monday 23rd of April 2018 02:01:30 PM (UTC+Central)

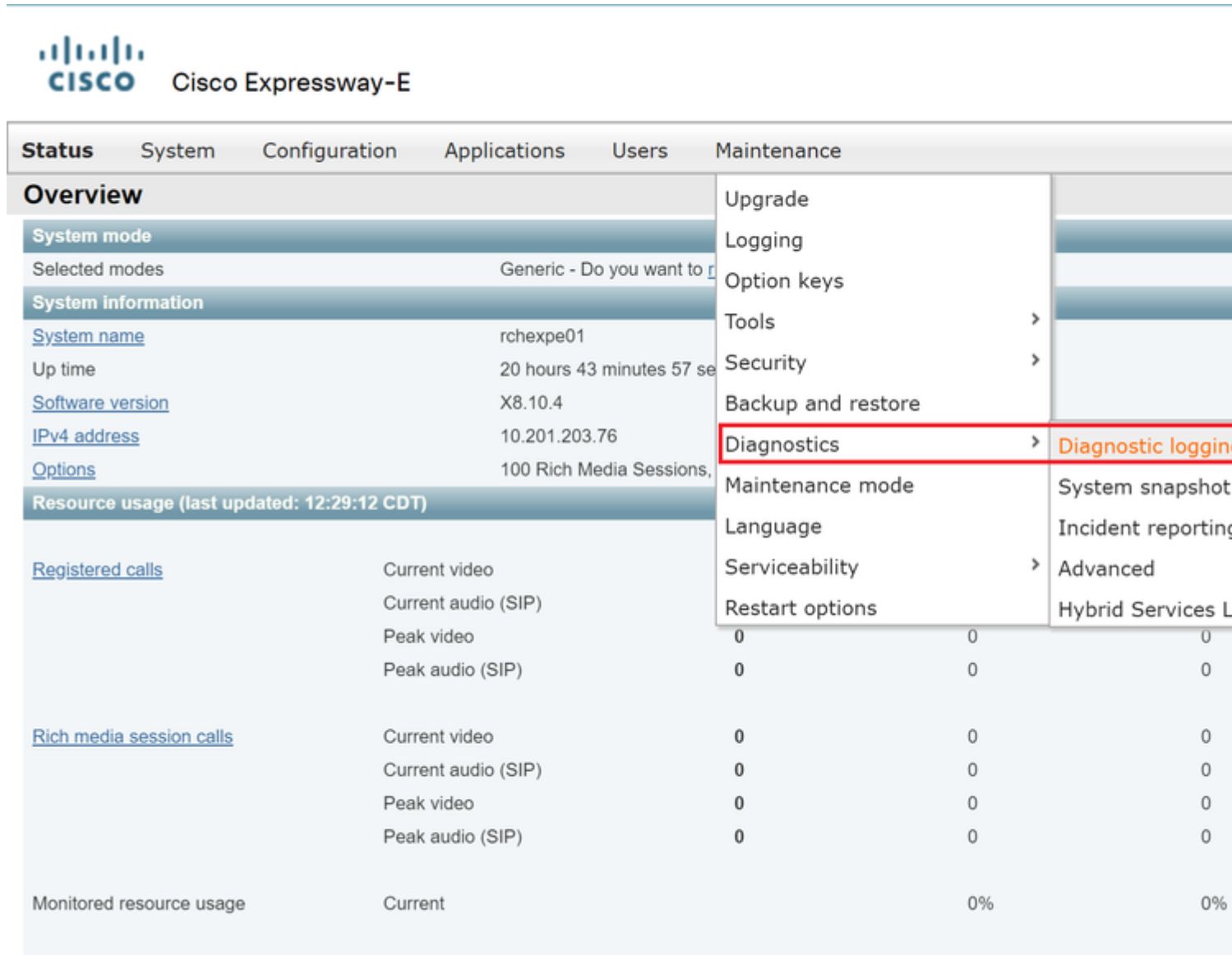
Monitor:

Take tcpdump while logging:

Step 7. Choose **Start new log** as shown in the image.

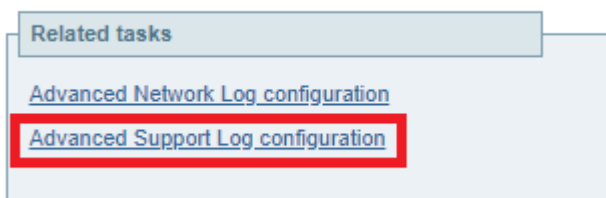
## Expressway-Edge

Step 8. Navigate to **Maintenance > Diagnostics > Diagnostic logging** as shown in the image.



The screenshot shows the Cisco Expressway-E web interface. At the top left is the Cisco logo and the text "Cisco Expressway-E". Below this is a navigation bar with tabs: Status, System, Configuration, Applications, Users, and Maintenance. The "Overview" section is active, displaying system information such as System mode (Generic - Do you want to...), System name (rchexpe01), Up time (20 hours 43 minutes 57 seconds), Software version (X8.10.4), IPv4 address (10.201.203.76), and Options (100 Rich Media Sessions, ...). A dropdown menu is open from the Maintenance tab, listing options like Upgrade, Logging, Option keys, Tools, Security, Backup and restore, Diagnostics (highlighted with a red box), Maintenance mode, Language, Serviceability, and Restart options. To the right of the Diagnostics menu item, the text "Diagnostic logging" is visible.

Step 9. Choose **Advanced Support Log configuration** at the bottom of the page as shown in the image.



The screenshot shows a "Related tasks" section. It contains two links: "Advanced Network Log configuration" and "Advanced Support Log configuration". The "Advanced Support Log configuration" link is highlighted with a red rectangular box.

Step 10. Mark the checkboxes as shown in the image.

- developer.edgeconfigprovisioning
- developer.xcp
- developer.xcp.cm
- developer.xcp.jabber

Step 11. Choose **Set to debug** at the bottom of the page as shown in the image.

Name	Level	Actions
<input type="checkbox"/> developer.webosrv	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.winbindservice.fsm.impl	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> developer.sse	DEBUG	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> developer.sse.cm	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.sse.federation	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> developer.sse.labber	DEBUG	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.administration	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.alternates	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.aocache	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.b2bucalls	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.cafestatus	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.cdr	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.ciphers	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.cms	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.collectdstatus	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.commandfactory	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.credential	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.cuom	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.cuomconfig	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.edgeauth	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.edgeconfigpositioning	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.edgemanagement	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.firewall	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.iform	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.hbaallowlist	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.hbaoccrstatus	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.hbaoserver	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.smbacl.json2xml	INFO	<a href="#">View/Edit</a>

Reset to info **Set to debug** Select all Unselect all

Step 12. Choose **Diagnostics** at the top-right of the page as shown in the image.

You are here: [Maintenance](#) **[Diagnostics](#)** [Advanced](#) [Support Log configuration](#)

Step 13. Mark the checkbox **Take tcpdump while logging** as shown in the image.

**Logging status**

Started logging at Monday 23rd of April 2018 02:00:31 PM (U)

Stopped logging at Monday 23rd of April 2018 02:01:38 PM (U)

Marker

[Add marker](#)

Take tcpdump while logging

Step 14. Choose **Start new log** as shown in the image.

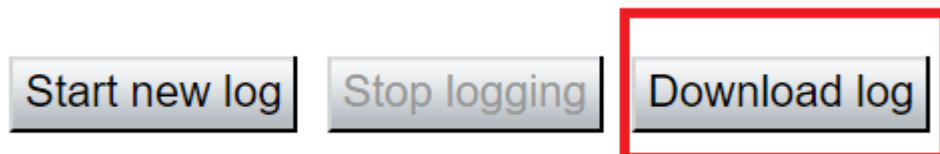
**Start new log** Stop logging Download log

Step 15. Reproduce the problem.

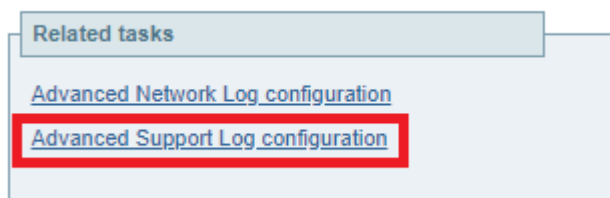
Step 16. Choose **Stop logging** after the problem is reproduced as shown in the image.



Step 17. Choose **Download log** as shown in the image.



Step 18. Choose **Advanced Support Log configuration** as shown in the image.



Step 19. Click **Select all** as shown in the image.



The image is a screenshot of the "Support Log configuration" page. It features a table with columns for "Name", "Level", and "Actions". The "Name" column contains various log configuration names, all with "INFO" level. The "Actions" column contains "View/Edit" links for each row. Below the table, there are four buttons: "Reset to info", "Set to debug", "Select all", and "Unselect all". The "Select all" button is highlighted with a red rectangular border.

Name	Level	Actions
<input type="checkbox"/> developer.abstraction	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.addresschooser	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.adminusermanager	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.adminusermanager.accessconfwriter	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.adminusermanager.consoleidswriter	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.alarmmanager	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.alternates.config	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.application	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.applicationmanager	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.applicationmanager.fastoathapplication	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.applicationmanager.fastoathapplication.dialogeventpackage.xml	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.applicationmanager.fastoathapplication.xciscoremoterequest.xml	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.applicationmanager.livenessmonitor	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.applicationmanager.livenessmonitor.allowedmethods	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.applicationmanager.policy	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.applicationmanager.policyconfigurator	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.applicationmanager.sin2sigapplication	INFO	<a href="#">View/Edit</a>
<input type="checkbox"/> developer.applicationmanager.sin2sigapplication.b2bcallbridge	INFO	<a href="#">View/Edit</a>

Reset to info Set to debug **Select all** Unselect all

User: admin Access: Read-write System host name: rchexp01 System time: 14:15 CDT

Step 20. Choose **Reset to info** as shown in the image.

## Support Log configuration

You are

Name	Level	Actions
<input checked="" type="checkbox"/> <a href="#">developer.abstraction</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.addresschooser</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.adminusermanager</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.adminusermanager.accessconfwriter</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.adminusermanager.consoleoldswriter</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.alarmanager</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.alternates.config</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.application</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.applicationmanager</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.applicationmanager.fastpathapplication</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.applicationmanager.fastpathapplication.dialogeventcallbackxml</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.applicationmanager.fastpathapplication.xciscoremoterequestxml</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.applicationmanager.livenessmonitor</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.applicationmanager.livenessmonitor.allowedmethods</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.applicationmanager.policy</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.applicationmanager.policyconfigurator</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.applicationmanager.sip2sipapplication</a>	INFO	<a href="#">View/Edit</a>
<input checked="" type="checkbox"/> <a href="#">developer.applicationmanager.sip2sipapplication.b2bcallbridge</a>	INFO	<a href="#">View/Edit</a>

User: admin Access: Read-write System host name: rchexp01 System time: 14:16 CDT

Step 21. Repeat Step 16 to Step 20 on the Expressway-Core.

**Note:** You can also download the [Jabber PRT log](#) for additional analysis.

## Jabber MRA via Expressway SSO-Enabled

### Expressway-Core

Step 1. Navigate to **Maintenance > Diagnostics > Diagnostic logging**.

Step 2. Choose **Advanced Support Log configuration**.

Step 3. Mark these check boxes:

- developer.edgeconfigprovisioning
- developer.edgeconfigprovisioning.uds
- developer.edgeconfigprovisioning.server.sso
- developer.management.sso
- developer.xmlapi.sso
- developer.cdbtable.cdb.edgeSsoStatus
- developer.xcp
- developer.xcp.cm
- developer.xcp.jabber

Step 4. Choose **Set to debug** at the bottom of the page.

Step 5. Choose **Diagnostics** at the top-right of the page.

Step 6. Mark the checkbox **Take tcpdump while logging**.



Step 7. Choose **Start new log**.

## **Expressway-Edge**

Step 8. Navigate to **Maintenance > Diagnostics > Diagnostic logging**.

Step 9. Choose **Advanced Support Log configuration**.

Step 10. Mark these checkboxes:

- developer.edgeconfigprovisioning
- developer.cdbtable.cdb.edgeSsoStatus
- developer.xcp
- developer.xcp.cm
- developer.xcp.jabber

Step 11. Choose **Set to debug** at the bottom of the page.

Step 12. Choose **Diagnostics** at the top-right of the page.

Step 13. Mark the checkbox **Take tcpdump while logging**.

Step 14. Choose **Start new log**.

Step 15. Reproduce the problem.

Step 16. Choose **Stop logging** after the problem is reproduced.

Step 17. Choose **Download log**.

Step 18. Choose **Advanced Support Log configuration**.

Step 19. Click **Select all**.

Step 20. Choose **Reset to info**.

Step 21. Repeat Step 16 to Step 20 on the Expressway-Core.

## **IP Phones 78XX/88XX and DX Series Endpoints MRA via Expressway**

### **Expressway-Core**

Step 1. Navigate to **Maintenance > Diagnostics > Diagnostic logging**.

Step 2. Choose **Advanced Support Log configuration**.

Step 3. Mark these checkboxes:

- developer.edgeconfigprovisioning
- developer.edgeconfigprovisioning.uds
- developer.xcp
- developer.xcp.cm

Step 4. Choose **Set to debug** at the bottom of the page.

Step 5. Choose **Diagnostics** at the top-right hand screen.

Step 6. Mark the checkbox **Take tcpdump while logging**.

Step 7. Choose **Start new log**.

## **Expressway-Edge**

Step 8. Navigate to **Maintenance > Diagnostics > Diagnostic logging**.

Step 9. Choose **Advanced Support Log configuration**.

Step 10. Mark these checkboxes:

- developer.edgeconfigprovisioning
- developer.xcp
- developer.xcp.cm

Step 11. Choose **Set to debug** at the bottom of the page.

Step 12. Choose **Diagnostics** at the top-right of the page.

Step 13. Mark the checkbox **Take tcpdump while logging**.

Step 14. Choose **Start new log**.

Step 15. Reproduce the problem.

Step 16. Choose **Stop logging** after the problem is reproduced.

Step 17. Choose **Download log**.

Step 18. Choose **Advanced Support Log configuration**.

Step 19. Click **Select all**.

Step 20. Choose **Reset to info**.

Step 21. Repeat Step 16 to Step 20 on the Expressway-Core.

---

**Note:** You can also download the [Cisco 78XX and 88XX Series endpoints PRT log](#) for additional analysis.

---

## **Related Information**

- [Collaboration Edge Most Common Issues](#)
- [Troubleshoot Jabber Login Problems](#)
- [Technical Support & Documentation - Cisco Systems](#)