Collect ACI Tech Supports and TAC Requested Outputs Guide

Contents

Introduction
Background Information
ACI APIC and Switch
On-Demand Techsupport
Trigger and Upload to Intersight via APIC - Nexus Insights Cloud Connector App
Trigger and Upload to Intersight via ND - Nexus Dashboard Insights
Trigger via APIC UI
On-Demand Techsupport Files Explained
Techsupport Local
Trigger via APIC CLI
Trigger via Switch CLI
CIMC Techsupport
Trigger via CIMC UI
Trigger via CIMC CLI
Parsing CIMC Techsupports
Extended Audits, Events, Faults and More (TacOutput)
Trigger via Trigger Tacoutput - 5.2/5.3/6.0(3d) and Later Releases
Trigger via Collect TacOutputs Script
Crash/Core Files
Collect via APIC UI
Collect via Switch CLI
APIC App Techsupport
Trigger via APIC UI
Application Virtual Edge (AVE)
Vem-Support
Trigger via AVE Node CLI
vCenter/ESXI Host Logs
Trigger via vCenter/ESXi UI
Nexus Dashboard Orchestrator (NDO), Previously MSO
Troubleshooting Report
Trigger via NDO/MSO UI - MSO Pre-2.x
Trigger via NDO/MSO UI - MSO Version 2.x
Trigger via NDO/MSO UI - MSO Version 3.x and Higher
Stream via NDO/MSO UI - MSO Version 3.x and Higher
Standalone Audit Logs
Collection via NDO/MSO UI

Introduction

This document describes the various logs and outputs that are required for troubleshooting when working

with TAC for ACI.

Background Information

For a quick reference on what data to gather before opening a TAC case, refer to Table 1.

Table 1: Logs/Show tech collection matrix

Issues	What to collect	Notes
Upgrade issues	 On-Demand Techsupport from nodes with upgrade issue. On-Demand Techsupport from all APICs. Additional faults,events,audits via TacOutput. 	If APICs are diverged and on- demand techsupport collection fails, collect Techsupport Local.
Random Connectivity Issue	 On-Demand Techsupport from src node (where the src endpoint is connected). On-Demand Techsupport from dst node (where the dstendpoint is connected). Additional faults, events ,audits via TacOutput 	
Complete Loss of Connectivity	 On-Demand Techsupport from leaves (src and dst) On-Demand Techsupport from spines On-Demand Techsupport from APICs Additional faults,events,audits via TacOutput 	For ongoing outages, engage TAC for live debugging. If nodes are to be rebooted for any reason, collect logs prior to reload if RCA is to be requested.
Clustering Issues	 On-Demand Techsupport from all APICs Additional faults,events,audits via TacOutput 	If APICs are diverged and on- demand techsupport collection fails, collect Techsupport Local.
Routing Issues	1. On-Demand Techsupport from nodes with routing	

	issue. 2. Additional faults, events, audits via TacOutput	
Node Crash/Unexpected Reload	 On-Demand Techsupport from crashed nodes. Crash/core files from crashed node(s). Additional faults, events, audits via TacOutput 	
APIC APP Issue	 On-Demand Techsupport from all APICs. APIC APP Techsupport for affected App. 	

ACI APIC and Switch

On-Demand Techsupport



Note: If your ACI Fabric is connected and claimed via Intersight, Tech Support generation and upload to the TAC SR for the Serial Number provided during case open is automated. The TAC engineer on that SR can then trigger the generation and upload or additional TechSupports for any other connected devices via Intersight.

Trigger and Upload to Intersight via APIC - Nexus Insights Cloud Connector App

To use this method, refer to <u>ACI Fabric must be connected and claimed on Intersight via the the APIC:</u> <u>Nexus Insights Cloud Connector app</u>.

- 1. Navigate to: APIC > Apps > Installed Apps > open NICC app > TAC Assist > click Begin
- 2. Select the node(s), then click **Collect Logs**.
- 3. Once the Job Status is COMPLETE, click View Details.
- 4. In Job Details Page, under Logs table, you file find Cloud Column.
- 5. Click **Upload** for each device's TechSupport Bundle.

Trigger and Upload to Intersight via ND - Nexus Dashboard Insights

To use this method, refer to ACI Fabric must be connected and claimed on Intersight via Nexus Dashboard:

- 1. Navigate to: Nexus Dashboard > Admin Console > Services > Open Nexus Dashboard Insights > Troubleshoot > Log Collector.
- 2. Click New Log Collection.
 - 1. Give a **name** to log collection.
 - 2. Select a site.
 - 3. Enable Checkbox for Auto Upload Log Files.
 - 4. Click Select Nodes, and chose the node/s.
 - 5. Click Start Collection.
 - 6. TechSupport files get uploaded to intersight.com
- 3. Once the upload completes, notify TAC that the files are uploaded on intersight.
- 4. TAC engineer would be able to move the files from intersight to the TAC case for analysis.

Trigger via APIC UI

Create an On-Demand Techsupport Policy

Note: Do not specify a TechSupport Time Range unless explicitly asked to by TAC. If there is excessive log churn, doing so can result in a loss of logs. This severely impacts the ability of TAC to provide a timely RCA. If a Techsupport Time Range is supplied, it trims logs based on the last file modification timestamp and NOT based on the timestamps within the logfile itself.

- 1. In the menu bar, click Admin > Import/Export > Export Policies > Right-click On-demand TechSupport > Create On-demand TechSupport.
- 2. Enter the appropriate values in the fields of the Create On-demand TechSupport dialog box.
 - If a remote location is not available, check Export to Controller. Generated Techsupports can then be downloaded via the Operational Tab of the GUI after they have been generated.
 - Check Include All Controllers in TechSupport to generate APIC Techsupports.
 - The Source Nodes field allows you to specify switch nodes that generate a Techsupport.
- 3. Click **Submit** to create the On-Demand Techsupport Policy.



Create On-Demand TechSupport



Create TechSupport Export Policy

	Name:	My_Techsup_Policy					
]	5.1 Export to Controller:						
l	Export Destination:	select an option	\sim				
	For App:						
	Include pre-upgrade logs:						
5.	2 Include All Controllers in TechSupport:						
	5.3 Source Nodes:	select switches		\sim			
Specify	y TechSupport Time Range:						
	Category:	All x	\checkmark				
				Canc	el	Submit	6

Generate an On-Demand Techsupport.

- 1. Navigate to an existing On-Demand Techsupport Policy. Created policies can be found at: Admin > Import/Export > Export Policies > On-demand TechSupport > Expand On-demand TechSupport folder > right-click the policy to be used > Collect Tech Supports.
 - Or Left-click the **On-Demand Techsupport Policy** to bring it up in the Main pane; then click the **Wrench/Hammer** icon and choose **Collect Tech Supports**.
- 2. Choose Yes to begin collecting tech support information.

cisco APIC System Tenants Fabric	VM Networking L4-L7 Services	Admin Operations	Apps	
AAA Sche	dulers Historical Record Policies Fi	rmware External Data Collec	ctors Config Rollbacks	mport/Export
Import/Export Quick Start Quick Start Minimport Policies Minimport Policies	Collect Tech Sup	o On-demand	TechSupport - 0_ Policy Operations	My_Techs 👔 Faults History
Export Policies TechSupport			Name: 0_My_Techsup_	Delete Collect Tech Supports 1.2
On-demand TechSupport	2 Yes	NO	ort to Controller:	
0_My_Techsup_Policy	Collect Tech Supports 1.1 Save as Post	Include pi	re-upgrade logs: All Controllers in TechSupport: Source Nodes: select switches	
	Share Open In Object Store Browser	Specify TechSup	Category: All R	~

Collect the generated Techsupport.

1. If Export to Controller was not enabled during Techsupport generation, the Export Destination (Remote Location) can be checked for all techsupport files.

- 2. If Export to Controller was enabled, navigate to the **On-Demand Techsupport Policy** that the techsupports were generated against. Created policies can be found at **Admin > Import/Export > Export Policies > On-demand TechSupport**.
 - The generated techsupports can be found within the Operational tab of that On-Demand Techsupport Policy. Each file has a link to download it via http/https. Each node has three links, one link tied to each file.

Note: If the version is earlier than 2.2, you must use the local admin user account to download Techsupports via the UI. Otherwise, use any other local account that has admin privileges. Remote users are not able to download techsupports via the UI. Instead, they can use sftp or another method to pull the techsupport files from the /data/techsupport/ directory on the corresponding APICs.

uluulu cisco APIC ystem Tenants Fabric VM Ne	tworking	L4-L7	Services	Admin 0	perations	Ap	ps Ar			
AAA Schedulers	Historical R	ecord Polic	ies Firmv	vare Extern	al Data Collect	ors	Config Rollb	acks	Import/Exp	ort
mport/Export 🕞 🗊 💿	On-der	nand [·]	TechSup	port - 0_	My_Tec	hsup	D_Policy Policy Op	erationa	l Faults	Histo
Import Policies Rollback Policies									Status	Faults
Export Policies TechSupport	*** •				1of3		3of3		2óf3 -	***
On-demand TechSupport	Node ID	Status	Detail Status	Collection	Export Location	File Size	Logs Location	Logs Size	DB Location	DB Size
0_My_Techsup_Policy	1	\oslash	Task com	2018-03-2	<u>files/1/te</u>	26	<u>files/1/te</u>	32	files/1/te	10
APICs	2	\odot	Task com	2018-03-2	files/2/te	14	files/2/te	28	files/2/te	519
CSCvd01443	3	$\overline{\bigcirc}$	Task com	2018-03-2	files/3/te	17	files/3/te	21	files/3/te	75
E CSCvg99137		0								

Note: The number in the URL of the techsupport bundle indicates which APIC the file resides on. For example, files/2/techsupport.tgz indicates that this specific bundle can be found on APIC 2's /data/techsupport/ directory.

On-Demand Techsupport Files Explained

If the Techsupports were generated with the Export to Controller option, the GUI shows three URLs per ACI node (APIC node or Switch node). Each URL is a different log file type and contains unique information. TAC typically requires all three files to be uploaded per node in order to get all logging for a complete analysis.

Each URL maps to one of the three filetypes:

Category	Typical Suffix	Useful for:	File Size
Export	_1of3.tgz	Audit/Fault Logs	Small-Med
Logs	_logs_3of3.tgz	Process Logs	Largest
DB	_db_2of3.tgz	MO Dump	Small

Note: If an Export Destination was selected instead of Export to Controller, the defined Remote Location creates a folder that contains the three files per node.

If there is an issue downloading the tech-support using the browser link, directly download the files from APIC storage using an scp or sftp client such as WinSCP or FileZilla.

1. Connect (sftp) to each APIC. The collected tech-support files are stored across all available APICs, so it is important to check each APIC for the collected tech-support files.

							sftp://admin@10.66.80.178 - FileZilla	
		# 1	C 11 🛛	1	I 🗉 🕰 🧉	2 🚯		
Host:	sftp://10.00.00.170	Username:	admin	Password:	•••••	Port:	Quickconnect	
Status:	Connecting to 10.66.	80.178						

2. Navigate to /data/techsupport folder in the connected APIC (repeat this step in all APIC controllers).

Remote site: /data/techsupport		~
? aci		
? bin		
? controller		
🔻 🧮 data		
? devicescript		
? log.lastupgrade		
techsupport		
Filename A	Filesize	File
L access.log.bk.gz.tar	846,370	tar
audit.txt	916,910	txt-
Ibgexp_coreexp-default_leaf101_sysid-101_2017-05-22T10-30CST_1495420227_0x102_port	13,478,0	gziţ
bgexp_tsod-ABCTECH_apic2_sysid-2_2017-07-21T08-35CST_1of3.tgz	33,315,631	gzi
bgexp_tsod-ABCTECH_apic2_sysid-2_2017-07-21T08-35CST_db_2of3.tgz	31,054,6	gzi
bgexp_tsod-ABCTECH_apic2_sysid-2_2017-07-21T08-35CST_logs_3of3.tgz	1,617,189	gzi
bgexp_tsod-ABCTECH_leaf101_sysid-101_2017-07-21T08-35CST_1of3.tgz	8,612,822	gzi
bgexp_tsod-ABCTECH_leaf101_sysid-101_2017-07-21T08-35CST_db_2of3.tgz	975,800	gzi
bgexp_tsod-ABCTECH_leaf101_sysid-101_2017-07-21T08-35CST_logs_3of3.tgz	908,076,	gzi
bgexp tsod-TAC Techsupport apic2 sysid-2 2017-07-20T13-30CST 1of3.tgz	29.360.3	aziı
b dbgexp tsod-TAC Techsupport apic2 sysid-2 2017-07-20T13-30CST db 2of3.tgz	31.046.3	azir
	0.10.1010111	3-1

Look for the files with a name that contains the On-demand TechSupport policy name (in this example, it is ABCTECH) and download those files to your computer.

Techsupport Local

An On-Demand Techsupport is always preferred to a techsupport local because an On-Demand Techsupport provides a more complete picture. However, it relies on a fully-fit APIC cluster as the collection is triggered via policy.



Note: A Techsupport local has to be triggered on each individual node, so if you plan to collect techsupport local for all APICs, the cmd must be run on each APIC in the cluster separately.

Techsupport Local Scenarios

- APIC is not fully-fit.
- ACI switch is not yet discovered by by the APIC.
- ACI switch has lost communication with the APIC.
- Internal process malfunction preventing On-Demand Techsupport operation (rare).

Trigger via APIC CLI

- 1. Open an SSH session with the APIC using admin credentials.
 - If you cannot use admin credentials to log in, use the username rescue-user. The password can be the same as the admin local user.
- 2. Run the command **bash -c** "**techsupport local**". <#root>

Using username "admin". Application Policy Infrastructure Controller apic1#

bash -c "techsupport local"

This command is being deprecated on APIC controller, please use NXOS-style equivalent command Running bash commands Completed 1 of 10 commands ... Completed 10 of 10 commands Starting data compression Techsupport collected at /data/techsupport/local_apic1_2018-05-29T08-17.tgz . Please remove the fi

- 3. Download the local techsupport.
 - Option A: Download the techsupport file using SCP:
 - WinSCP or pscp.exe (Windows Users)
 - Native SCP client (MAC Users)
 - Option B: Download the techsupport file using HTTPS:
 - 1. Open a browser such as Chrome or Firefox.
 - 2. Navigate to: https://<aci.apic.ip.addr>/files/<apic#>/techsupport/<ts_filename>
 - Example: https://a.p.i.c/files/1/techsupport/local_apic1_2018-05-29T08-17.tgz
 - 3. Log in using admin credentials.
 - 4. If prompted, select Save File on the browser download prompt.

Trigger via Switch CLI

1. Open an SSH session with the ACI switch using admin credentials.

- If the switch is not yet discovered by the APIC, use the username admin.
- 2. Run the command: "techsupport local".

<#root>

fab5-leaf1#

techsupport local

Running bash commands Completed 1 of 9 commands ... Completed 9 of 9 commands Starting data compression Techsupport collected at /data/techsupport/local_fab5-leaf1_2018-05-29T08-16.tgz . Please remove the fi

- 3. Download the local techsupport.
 - Option A: Download the techsupport file from the ACI switch using SCP:
 - WinSCP or pscp.exe (Windows Users)
 - Native SCP client (MAC Users)
 - Option B: Download the techsupport file using HTTPS via the APIC:
 - 1. Log in to an APIC CLI (note which APIC is used for step 4).
 - 2. Transfer the techsupport file from the ACI switch to the APIC using this command:
 - scp <node-name>:/data/techsupport/<ts_filename> /data/techsupport
 - Example: apic1# scp fab5-leaf1:/data/techsupport/local_fab5-leaf1_2018-05-29T08-16.tgz /data/techsupport

- 3. Open a browser such as Chrome or Firefox.
- 4. Navigate to: https://<aci.apic.ip.addr>/files/<apic#>/techsupport/<ts_filename>
 - Example: https://a.p.i.c/files/1/techsupport/local_fab5-leaf1_2018-05-29T08-16.tgz
- 5. Log in using admin credentials.
- 6. If prompted, select Save File on the browser download prompt.

CIMC Techsupport

Trigger via CIMC UI

A Techsupport from APIC CIMC can be collected to review logs related to the APICs Chassis. A CIMC show tech can be captured locally or sent to a remote location from the Utilities section of CIMC Admin tab.



Trigger via CIMC CLI

On the APIC CIMC CLI enter:

```
~ # scope cimc
~ /cimc # scope tech-support
~ /cimc/tech-support # set tftp-ip 192.168.1.1
~ /cimc/tech-support *# set path \techsupport\showtech
~ /cimc/tech-support *# commit
~ /cimc/tech-support *# start
```

Parsing CIMC Techsupports

Some of the key fields from within the show tech command are listed here.

Techsup File/Location	Description
var/	Contains detailed logs, and status of all monitored services. It also contains services information files such as the configuration of SOL and IPMI sensor alarms.
var/log	Contains the rolling volatile log messages.
obfl/	Contains the rolling non-volatile log messages.
met/	Non-volatile configuration and SEL
mp/	The show tech-support text files, along with BIOS tech-support text files. The text files contain all process, network, system, mezzanine, and BIOS state information.
mctool	Gets basic information on the state of the CIMC.
network	Gets current network configuration and socket information.
obfl	Gets live obfl (On-Board Failure Logs).
messeges	Gets live /var/log/messages file.
alarms	Lists sensors in alarm states.
sensors	Current sensor readings from IPMI.
power	Current power state of the x86.

Extended Audits, Events, Faults and More (TacOutput)

TAC can request additional basic outputs such as Faults, Events, and Audits which are generally required for RCA.

As of today, the show techs already include a subset of these objects, however only the last 10,000 records. In some cases, TAC requires the full set of records, which goes well beyond 10,000 records.

Note: Starting with release 5.2(1g), you can use the CLI Command trigger tacoutput from the APIC to collect these additional objects. However, in releases prior to 5.3(x) and 6.0(3d) the built-in script can fail to collect all pages of records. In this case, it is recommended to use the most updated version of the script within the <u>aci-tac-scripts</u> repository outlined in the next section.

Trigger via Trigger Tacoutput - 5.2/5.3/6.0(3d) and Later Releases

For ACI Fabrics running version 5.2/5.3/6.0(3d) and later releases, **trigger tacoutput** provides a simplified collection interface for Events, Faults, Audit and other troubleshooting outputs):

<#root>

apic1#

trigger tacoutput

Select corresponding numbers of objects to collect. Separate numbers with commas. *Note, topSystem, fab Ex: 1,2,3,4,5 1. faultInfo *collected unfiltered

2. faultRecord

- 3. eventRecord
- 4. aaaModLR *collected unfiltered
- polDeploymentRecord
- 6. epRecord
- 7. healthRecord

8. healthInst *collected unfiltered

Enter selections: 1,2,3,4,5,6,7,8

Enter record start date (format: 2019-12-15T00:00:00) *default is one month prior to current date: Enter record end date (format: 2019-12-15T00:00:00) *default is current date:

... collection runs...

2021-12-17T08:19:59 TacOutput collection completed. 2021-12-17T08:19:59 Verify files and file sizes at /tmp/TacOutput2021-12-17T08-16-19 2021-12-17T08:19:59 Compressing files... 2021-12-17T08:20:01 Compression completed Logs available for SCP or SFTP download from /data/techsupport/TacOutput-2021-11-17T08:18:06-to-2021-12 To download through your web browser go to

https://<apic address>/files/1/techsupport/TacOutput-2021-11-17T08:18:06-to-2021-12-17T08:18:06.tgz

Note: in the URL previous 1 denotes the APIC ID 1, if script was run on APIC-n, then n must be specifie

To remove files when done run rm -rf /tmp/TacOutput2021-12-17T08-16-19 rm -f /data/techsupport/TacOutput-2021-11-17T08:18:06-to-2021-12-17T08:18:06.tgz

Trigger via Collect TacOutputs Script

For ACI Fabrics running pre 5.2/5.3/6.0(3d), there is a Collect TacOutput Script available within the aci-tac-

scripts repository which serves a similar interface as the trigger tacoutput command:

<#root>

apic#

/tmp/collectTacOutputs.sh

Select corresponding numbers of objects to collect. Separate numbers with commas. *Note, topSystem, fab Ex: 1,2,3,4,5

1. faultInfo *collected unfiltered

- faultRecord
- eventRecord
- 4. aaaModLR
- 5. polDeploymentRecord
- epRecord
- healthRecord
- 8. healthInst *collected unfiltered
- Enter selections:

1,2,3,4,5,6,7,8

Enter record start date (format: 2019-12-15T00:00:00) *default is one month prior to current date: 2019 Enter record end date (format: 2019-12-15T00:00:00) *default is current date: 2020-01-05T00:00:00

...script collection runs...

Compression completed Logs available for SCP or SFTP download from /data/techsupport/TacOutput-2019-12-25T00:00:00-to-2020-01 To download through your web browser go to https:///files/1/techsupport/TacOutput-2019-12-25T00:00:00-t

Crash/Core Files

Collect via APIC UI

The ACI switch node and APIC have numerous processes which control various functional aspects on the system. If the system has a software failure in a particular process, a core file is generated and the process is reloaded. When a process crashes and a core file is generated, a fault as well as an event is generated. When the process on the switch/APIC crashes, the core file is compressed and copied to the APIC.

The APIC GUI provides a central location to collect the core files for the fabric nodes.

A new export policy can be created from **Admin > IMPORT/EXPORT in Export Policies > Core**.

There is a default core policy where files can be downloaded directly. All generated core files attempt a transfer to the APIC controller when generated. If successful, they can be found under the default core policy.

alialia cisco	System	Tenants	Fabric	VM Networking	L4-L7 Services	Admin	Operations	Apps	P	i	Advanced Mode welcome, admin +
				I Schedulers Histor	ical Record Policies 1	Firmware External 0	Deta Collectors Config	Rollbacks Import/Export			
Import/Export		0	Core Export	Policy - defa	ult						
Quick Start			COLE EXPORt	Folicy - dela	uit						1
Import Policies									Policy	Operational	Faults History
Rollback Policies			0.+				AAGO				ACTIONS -
Export Policies			U T								nonono -
TechSupport			Properties								
Image: Image: Provide the ima	TechSupport			Name: default							
Per-Feature 0	Container for System 1	TechSupport Data	Desc	ription: optional							
▶ Per-Feature 0	Container for App Tec	hSupport Data									
AVS TechSup	port										
Core			Collectio	n Type: Core Only	Core and TechSup	port					
🛄 default			Export to Co	ntroller: 🗹 💙							
Configuration			Export Dest	ination: select an opti-	on 👻						
Snapshot Manag	ement										
Remote Location	15										

You can view the generated (and exported) core files by reviewing the **Operational** tab. In this tab, you can review the node which generated the core files (service crashed), collection time, and so on.

ahaha	Suntam	Toponto		abrio	VAL Notworking	I 4-I 7 Services	Admin	Operations	A000	0		Adva	inced Mode
CISCO	System	renanco		aunc	VMINELWORKING	L4-L7 Gervices		Operations	Apps	P		welcor	ne, admin v
				A	A Schedulers Histor	ical Record Policies	Firmware External C	Deta Collectors Confi	g Rollbacks Import/Export				
Import/Export		⊴ ⊙	Core	Expo	rt Policy - defa	ult							
Quick Start			0010	Enpo	aoia	on c							
Import Policies										Policy	Operational	Faults	History
Rollback Policies													Charles
Export Policies													Status
TechSupport			0 1	-								A	CTIONS -
On-demand Te	chSupport		_	-									
Per-Feature Co	ontainer for System 1	TechSupport Data	Node ID	Status	Collection Time	Export Location					- F	ile Size	
Per-Feature Co	ontainer for App Tecl	hSupport Data	101	0	2017-05-22 10:30:	files/2/techsupport/dl	bgexp_coreexp-defau	ult_leaf101_sysid-101_	2017-05-22T10-30CST_1495	420227_0x102_port_client_log.16042	.tar.gz 1347	78099	
AVS TechSupp	ort		1	0	2017-06-01 10:10:	files/1/techsupport/dt	bgexp_coreexp-defau	ut_apic1_sysid-1_201	7-06-01T10-10CST_snmpd.bi	n_log.1277.tar.gz	3926	35399	
📒 default							Δ						
Configuration							U						
Snapshot Manage	ment												
Remote Locations													

You can download the files to your desktop by clicking the **Export Location** link. Use your APIC credentials when prompted.

cisco	System	Tenants	F	abric AA	VM Networkin A Schedulers Hk	Authentication Required https://10.66.80.178	Apps Ibacks Import/Export	ρ	i	Adv welco	anced Mode me, admin -
Import/Export C C C C C C C C C C C C C C C C C C C			Core	Expo	rt Policy - de	Username admin Password Cancel Log In		Policy	Operational	Faults	i History Status
Per-Feature C Per-Feature C AVS TechSup	container for System	TechSupport Data hSupport Data	Node ID 101	Status	Collection Time 2017-05-22 10:30:	Export Location files/2/techsupport/dbgexp_coreexp-default_leaf101_sysid=101_2	017-05-22T10-30CST_1495420	0227_0x102_port_client_log.16043	Ltar.oz 134	File Size	
Core Configuration Snapshot Manage Remote Location	ement S		1	0	2017-06-01 10:10:	files/1/techsupport/dbgexp_coreexp-default_epic1_sysid-1_2017	-06-01T10-10CST_snmpd.bin_k	og.1277.tør.gz	392	165399	

Alternatively, you can access the core files via SSH/SCP through the APIC at /data/techsupport folder on the APIC where the core file is located.



Note: The core file is available at /data/techsupport on one APIC in the cluster; the exact APIC where the core file resides can be found by the Export Location path as shown in the GUI. For example, if the Export Location begins with files/3/, the file is located on node 3 (APIC3).

Collect via Switch CLI

In some exceptional cases, the cores from the Leafs or Spines can not get copied to the APIC and they can be found in /logflash/core of the switches. They can be retrieved by SCP to the switch directly or by moving the file to APIC and then SCP out of APIC.

The collection script attempts to collect the corefiles in /logflash/core as well as additional crash related information:

#Run on an ACI Leaf Node, Copy from here bash -c ' # set this to correct leaf name leaf="\$(hostname)""_data"

```
# collect data
mkdir /data/techsupport/$leaf
cd /data/techsupport/$leaf
show system reset-reason > show_sys_rr.log
vsh -c "show logging onboard internal reset-reason" > show_logg_onb_internal_rr.log
vsh -c "show logging onboard stack-trace" > show_logg_onb_stack-trace.log
vsh -c "show logging onboard card-boot-history" > show_logg_onb_card-boot-history.log
vsh -c "show processes log details" > show_process_log_detail.log
df - h > df.log
ls -liah /logflash/core > logflash_core.log
cp /var/log/dmesg ./
cp -rf /mnt/ifc/log/last_run/ ./
mkdir bootflash; cp /bootflash/mem_log* ./bootflash/
mkdir mnt_pss; cp -rf /mnt/pss/* ./mnt_pss/
mkdir mnt_pstore; cp -rf /mnt/pstore/* ./mnt_pstore/
mkdir logflash_core; cp -rf /logflash/core ./logflash_core
# compress and combine files
cd /data/techsupport
zipfile="$leaf"".tgz"
tar -zcvf ./$zipfile ./$leaf/*
rm -rf ./$leaf/*
rmdir ./$leaf
echo ""
echo " ///// Please collect /data/techsupport/"$zipfile" and upload to SR //////"
#copy to here
```

APIC App Techsupport

Trigger via APIC UI

If an APIC APP is in use and is found to be having issues, a specific On-demand Techsupport policy can be created against the App to collect its logs for analysis.

The Policy can be created at **Admin > Import/Export > Export Policies > Create On-demand Tech Support**. There is a specific option **For App** which allows the user to select an APIC APP to collect logs against:

ng	L4-L7 Services	Admin	Operations	Apps	Integrations	
ord Pol	Create On-o	demand	Tech Supp	ort	@ &	
C		Name:	SSDUpgrader			
	Export	to Controller:	V			
	Expo	rt Destination:				
		For App:	Y			
		App:	select an App	\sim (des
			Cisco/ELAM As	sistant		
			(Beta)			af-101, I
{			Cisco/Externals pluginContr Cisco/Nexus In Cloud Connecto pluginContr	Switch sights or		
			Cisco/SSDUpgr pluginContr	ader		
					Cancel Submit	

Once the policy is created, collection can be triggered against that policy to collect the techsupport and make it available for download from the operational tab if **Export to Controller** was selected.

Application Virtual Edge (AVE)

Vem-Support

Trigger via AVE Node CLI

Log in to the AVE CLI and run this command. The show tech is collected in the /tmp directory. You can use SCP to export it.

<#root>
cisco-ave:~\$
vem-support all
This can take some time. Please wait.

This can take some time. Please wait. Copying dpa logs ... Generated /tmp/dbgexp_ave_sw-dvs-60_10.48.16.46_2019-0226-1408_logs.tgz

cisco-ave:tmp\$ tar -tf dbgexp_ave_sw-dvs-60_10.48.16.46_2019-0226-1408_logs.tgz dbgexp_ave_sw-dvs-60_10.48.16.46_2019-0226-1408_logs/ dbgexp_ave_sw-dvs-60_10.48.16.46_2019-0226-1408_logs/cisco-vemlog.txt dbgexp_ave_sw-dvs-60_10.48.16.46_2019-0226-1408_logs/cisco-vem-support.txt dbgexp_ave_sw-dvs-60_10.48.16.46_2019-0226-1408_logs/cisco-vemdpa.txt ... dbgexp_ave_sw-dvs-60_10.48.16.46_2019-0226-1408_logs/log/redis/ dbgexp_ave_sw-dvs-60_10.48.16.46_2019-0226-1408_logs/log/redis/

vCenter/ESXI Host Logs

Trigger via vCenter/ESXi UI

Vcenter and ESX host logs can be exported as shown in the screen images.

Ŧ	🕝 bdsol-aci02-vc.cisco.com 🛛 🎦 🏷 🔏 🖓 Actions 🗸	
	Getting Started Summary Monitor Configure F 📴 Actions - bdsol-aci02-vc.cisco.com	1.0
	New Datacenter	T
	Issues Tasks & Events System Logs Sessions Provider	1
	Journal de vCenter Server [vpxd-7 log]	
	Export System Logs	ľ
	2019-02-25T13:44:33.725Z Section for VMware VirtualC	=9
	2fae-5b5366d59890) Settings	_/a
	2019-02-25T13:44:33.726Z info vpxd[7F2C8BC78700] [(vCenter HA Settings)a
	vim.AuthorizationManager.hasUserPrivilegeOnEntities Tags & Custom Attributes	_ a ▶ ;4
	2019-02-25T13:44:33.747Z info vpxd[7F2C89BB7700] [(Add Permission	-ec
	2019-02-25T13:44:33.875Z info vpxd[7F2C8AF5E700] [(Alarms	► Ife
	52157544-2f06-726e-b804-591af4ea69cc(52fd6131-cc 2019-02-25T13:44:33.875Z info vpxd[7F2C8AF5E700] [CUpdate Manager	e.

	-			Q Filter	
	Name	Status	Cluster	Datacenter	Version
\checkmark	10.48.16.70	Connected	AVE-Cluster	POD02	6.0.0
\checkmark	10.48.16.82	Connected	AVE-Cluster	POD02	6.0.0
	10.48.16.83	Connected	VE-Cluster	POD02	6.0.0
	nclude vCenter Server and vSp The vCenter Server system you	here Web Client logs.	port of individual system loo	as. All	
r s	The vCenter Server system you system logs will be exported from	selected does not support exp m vCenter Server.	oort of individual system log	gs. All	

Nexus Dashboard Orchestrator (NDO), Previously MSO

Troubleshooting Report

Trigger via NDO/MSO UI - MSO Pre-2.x

Controller Status 3/3 Welcome, Adm Troubleshooting Report Reset Password Log Out		
	Troubleshooting Report	×
	Select Logs ✓ Sites ✓ Tenants ✓ Schemas ✓ Users ✓ Infra Logs	
		DOWNLOAD

Trigger via NDO/MSO UI - MSO Version 2.x

1. From MSO GUI, click settings icon.

- 2. Select **System Logs** from the dropdown list.
- 3. Click **download** button from the pop up window.

Ξ		diale Multi-Si	Cluster Status 3/3 👩 💽 💶					
© •	Dashboard Sites	Audit Logs (50000 Logs) 2						
* #	Schemas Tenants		Mc					
	Users Policies	DATE ↓ Jun 12, 2021 4:16:44 PM	System Logs	USER admin (Admin User)				
•	Admin Admin Providers	Jun 9, 2021 3:48:19 PM	DOWNLOAD LOGS	Server Logs	3 DOWNLOAD	admin (Admin User) Local		
	Backups	Jun 9, 2021 3:48:19 PM Jun 6, 2021 5:52:22 AM	EXTERNAL STREAMING			admin (Admin User) Local admin (Admin User) Local		
	Security	Jun 6, 2021 5:52:22 AM	on ou			admin (Admin User) Local		
Remote Locations System Configuration		Jun 6, 2021 1:00:16 AM Jun 6, 2021	ALL LOGS	AUDIT LOGS		admin (Admin User) Local admin (Admin User)		

Trigger via NDO/MSO UI - MSO Version 3.x and Higher

Ē.	Multi-Site Orchestrator	
Dashboard		
Application Management	Tech Support	
Operations Operations	System Logs	3 /
Backups & Restore	External Streaming	Available Logs
Tech Support	Off	Database Backup Server Logs
Remote Locations	Select Logs	Count of Servers
⊖ Infrastructure ∨	All Logs	0
🖍 Admin 🗸 🗸		

System Logs

- 1. From MSO GUI, in the main menu, Open the **System Logs** screen. Select **Operations > Tech Support**.
- 2. In the top right corner of the System Logs frame, click the **edit** button.



3. Select which logs you want to download.

4. Click the **download** button.

An archive of the selected items is downloaded to your system. The report contains this information: all schemas, sites definitions, tenants definitions, users definitions in JSON format. All logs of the containers in the infra_logs.txt file.

Stream via NDO/MSO UI - MSO Version 3.x and Higher

The System Logs can be streamed to an External Analyzer. For more details on how to send the logs to an external log analyzer tool in real time, refer to the below link. <u>https://www.cisco.com/c/en/us/td/docs/dcn/mso/3x/configuration/cisco-aci-multi-site-configuration-guide-301/aci-multi-site-logs.html</u>

Standalone Audit Logs

Collection via NDO/MSO UI

MSC Audit Logs can be downloaded in JSON on CSV Format.

	disto ACI Mu	ulti-Site		Controller Status 3/3	3 Welcome, Admin 🛩
Admin AUTHENTICATION Providers Login Domains Backups	Audit Logs (3)	12 Logs)			Most Recent
Audit Logs	DATE 🛩	ACTION	TYPE	DETAILS	USER
	Apr 11, 2018 10:50 AM	Created	Backup	Backup Backup RD_20180411085033 was created	admin (Admin User) Local
	Apr 11, 2018 10:48 AM	Logged In	Authentication	User admin has successfully logged in	admin (Admin User) Local
	Apr 11, 2018 10:08 AM	Deployed	Schema Site	Template Pod35-only was deployed on POD35	admin (Admin User) Local
	Apr 11, 2018 10:08 AM	Deployed	Schema Site	Template Pod35-only was deployed on POD36	admin (Admin User) Local
	Apr 11, 2018 10:08 AM	Updated	Schema	Schema DC-Schema was updated	admin (Admin User) Local
	Apr 11, 2018 10:06 AM	Updated	Schema	Schema DC-Schema was updated	admin (Admin User) Local
	Apr 11, 2018 10:06 AM	Updated	Template	Template Pod35-only was updated	admin (Admin User) Local
	Apr 11, 2018 10:06 AM	Created	EPG	EPG test was created	admin (Admin User) Local