Tech-Support Commands

This module describes commands used to collect the **show** command outputs using Cisco IOS XR software.

The **show tech-support** commands collect common data from commands such as **show version**. Each **show tech-support** command also generates and gathers relevant data for a specific area. This data includes trace output to collect debugging information available in the specific area of interest.

To use commands of this module, you must be in a user group associated with a task group that includes appropriate task IDs. If the user group assignment is preventing you from using any command, contact your AAA administrator for assistance.

show tech-support custom

To generate and gather tech-support information related to a specific area such as network traffic, control-plane, and the system, use the **show tech-support custom** command in EXEC mode.

show tech-support custom { **traffic** | **control-plane** | **system** | **sysadmin** }

Syntax Description	

traffic	Generates tech-support information related to network traffic.
control-plane	Generates tech-support information related to the control-plane.
system	Generates tech-support information related to the system.
sysadmin	Generates tech-support information related to the system-admin profile.

Command Default   None

Command Modes   EXEC mode

Config mode

Command History

Release	Modification
Release 7.3.6	The **sysadmin** option was introduced.
Release 7.3.5	This command was introduced.

Usage Guidelines   This command generates tech-support information that is useful for Cisco Technical Support representatives when troubleshooting a router. By default, the output of this command is saved on the router's hard disk in a file with *.tgz* extension. You can share this file with Cisco Technical Support. To share, use the **copy** command to copy the *.tgz* file to a server or local machine. For example, **copy harddisk:/showtech/***name.tgz* **tftp://***server_path*.

For Cisco Technical Support contact information, see the 'Obtaining Documentation and Submitting a Service Request' section in the Preface.

Table 1: List of Commands collected by each custom option

Custom Option	Release	List of commands outputs collected
Control-plane	Release 7.3.6	

Custom Option	Release	List of commands outputs collected
		show tech-support aib
		show tech-support ipv6 nd
		show tech-support arp
		show tech-support service-layer
		show tech-support routing bgp
		show tech-support routing isis
		show tech-support routing bfd
		show tech-support bfdhwoff
		show tech-support mpls ldp
		show tech-support bcdlv2
		show tech-support rib
		show tech-support mpls lsd
		show tech-support cef
		show tech-support cef platform
		show tech-support gsp
		show tech-support l2rib
		show tech-support l2vpn
		show tech-support lpts
		show tech-support spp
		show tech-support clns
		show tech-support fabric
		show tech-support l2vpn evpn
		show tech-support tunnel-ip
		show tech-support grpc
		show tech-support appmgr
		show tech-support netconf
		show tech-support yserver
		show tech-support access-lists ipv4
		show tech-support access-lists ipv6
		show tech-support bcdl
		show tech-support bundles
		show tech-support dhcp ipv4 base
		show tech-support dhcp ipv4 client

Custom Option	Release	List of commands outputs collected
		show tech-support dhcp ipv4 proxy
		show tech-support dhcp ipv4 relay
		show tech-support dhcp ipv4 server
		show tech-support dhcp ipv4 snoop
		show tech-support dhcp ipv6 base
		show tech-support dhcp ipv6 client
		show tech-support dhcp ipv6 proxy
		show tech-support dhcp ipv6 relay
		show tech-support dhcp ipv6 server
		show tech-support flowspec
		show tech-support ipinfra
		show tech-support pbr
		show tech-support placed
		show tech-support raw
		show tech-support rsi
		show tech-support spio
		show tech-support static
		show tech-support sysdb
		show tech-support tcp nsr
		show tech-support udp
		show tech-support pfi
		show tech-support cfgmgr
		show tech-support tty
		show tech-support rdsfs

Custom Option	Release	List of commands outputs collected
Traffic	Release 7.3.6	

Custom Option	Release	List of commands outputs collected
		show tech-support access-lists ethernet-services
		show tech-support access-lists ipv4
		show tech-support access-lists ipv6
		show tech-support aib
		show tech-support arp
		show tech-support bcdl
		show tech-support bcdlv2
		show tech-support bfdhwoff
		show tech-support bundles
		show tech-support cef
		show tech-support cef platform
		show tech-support cfgmgr
		show tech-support dhcp ipv4 base
		show tech-support dhcp ipv4 client
		show tech-support dhcp ipv4 proxy
		show tech-support dhcp ipv4 relay
		show tech-support dhcp ipv4 server
		show tech-support dhcp ipv4 snoop
		show tech-support dhcp ipv6 base
		show tech-support dhcp ipv6 client
		show tech-support dhcp ipv6 proxy
		show tech-support dhcp ipv6 relay
		show tech-support dhcp ipv6 server
		show tech-support ethernet cfm pd
		show tech-support ethernet interfaces
		show tech-support ethernet platform
		show tech-support ethernet protocols oam
		show tech-support ethernet service-activation-test
		show tech-support fabric
		show tech-support flowspec
		show tech-support grid
		show tech-support gsp
		show tech-support ipinfra

Custom Option	Release	List of commands outputs collected
		show tech-support ipv6 nd
		show tech-support l2rib
		show tech-support l2vpn
		show tech-support l2vpn evpn
		show tech-support l2vpn platform
		show tech-support lpts
		show tech-support mirror
		show tech-support mpls lsd
		show tech-support mpls oam
		show tech-support mpls rsvp
		show tech-support mpls static
		show tech-support mpls traffic-eng
		show tech-support netflow
		show tech-support ofa
		show tech-support optics
		show tech-support pbr
		show tech-support pfi
		show tech-support placed
		show tech-support platform-pfc
		show tech-support protection-notif
		show tech-support qos pi
		show tech-support qos platform
		show tech-support qos tm
		show tech-support raw
		show tech-support resmon
		show tech-support rib
		show tech-support routing bfd
		show tech-support rsi
		show tech-support secy
		show tech-support segment-routing traffic-eng
		show tech-support snmp ifmib
		show tech-support span
		show tech-support spio

Custom Option	Release	List of commands outputs collected
		show tech-support spp
		show tech-support static
		show tech-support statsd
		show tech-support statsd
		show tech-support sysdb
		show tech-support tcp nsr
		show tech-support tunnel-ip
		show tech-support udp

Custom Option	Release	List of commands outputs collected
System	Release 7.3.6	

Custom Option	Release	List of commands outputs collected
		show tech-support spi
		show tech-support ofa
		show tech-support optics
		show tech-support gsp
		show tech-support platform timing
		show tech-support gnss platform
		show tech-support ptp
		show tech-support frequency synchronization
		show tech-support ethernet controllers
		show tech-support ethernet interfaces
		show tech-support pfi
		show tech-support protection-notif
		show tech-support cfgmgr
		show tech-support sysdb
		show tech-support processmgr
		show tech-support grpc
		show tech-support telemetry model-driven
		show tech-support parser
		show tech-support fabric
		show tech-support secy
		show tech-support macsec
		show tech-support keychain
		show tech-support kim
		show tech-support ntp
		show tech-support placed
		show tech-support pmengine
		show tech-support pool
		show tech-support rdsfs
		show tech-support resmon
		show tech-support sdr-invmgr
		show tech-support sdr-mgbl-proxy
		show tech-support shmwin
		show tech-support snmp

Custom Option	Release	List of commands outputs collected
		show tech-support ssh
		show tech-support system-recovery
		show tech-support tacacs
		show tech-support tty
		show tech-support type6
		show tech-support ztp
		show tech-support alarm-mgr
		show tech-support cepki
		show tech-support statsd
		show tech-support bundles
		show tech-support snmp ifmib
		show tech-support ipinfra
		show tech-support cef
		show tech-support cef platform
		show tech-support rsi

Custom Option	Release	List of commands outputs collected
Sysadmin	Release 7.3.6	admin show tech-support HBloss
		admin show tech-support aaa
		admin show tech-support alarm_mgr
		admin show tech-support card-mgr
		admin show tech-support cm
		admin show tech-support confd
		admin show tech-support control-ethernet
		admin show tech-support ctrace
		admin show tech-support ds
		admin show tech-support envmon
		admin show tech-support fabric
		admin show tech-support fpd
		admin show tech-support install
		admin show tech-support obfl
		admin show tech-support os
		admin show tech-support pm
		admin show tech-support sdr_mgr
		admin show tech-support shelf_mgr
		admin show tech-support syslog
		admin show tech-support tacacs-server
		admin show tech-support tam

Note   This command is not required during normal use of the router.

Task ID

Task ID	Operations
basic-services or cisco-support	read

The following example shows the output of the **show tech-support custom traffic** command:

```
Router# show tech-support custom traffic
++ Show tech start time: 2023-Jun-16.195852.UTC ++
Fri Jun 16 19:58:52 UTC 2023 Waiting for gathering to complete
.........................................................................................................
Fri Jun 16 20:05:45 UTC 2023 Compressing show tech output
Show tech output available at 0/RP0/CPU0 :
/harddisk:/showtech/showtech-custom-traffic-2023-Jun-16.195852.UTC.tgz
++ Show tech end time: 2023-Jun-16.200546.UTC ++
```

The following example shows the output of the **show tech-support custom control-plane** command:

```
Router# show tech-support custom control-plane
++ Show tech start time: 2023-Jun-16.194006.UTC ++
Fri Jun 16 19:40:06 UTC 2023 Waiting for gathering to complete
.......................................................................................
Fri Jun 16 19:44:59 UTC 2023 Compressing show tech output
Show tech output available at 0/RP0/CPU0 :
/harddisk:/showtech/showtech-custom-control-2023-Jun-16.194006.UTC.tgz
++ Show tech end time: 2023-Jun-16.194459.UTC ++
```

The following example shows the output of the **show tech-support custom system** command:

```
Router# show tech-support custom system
++ Show tech start time: 2023-Jun-16.194549.UTC ++
Fri Jun 16 19:45:50 UTC 2023 Waiting for gathering to complete
.........................................................................................................
Fri Jun 16 19:54:24 UTC 2023 Compressing show tech output
Show tech output available at 0/RP0/CPU0 :
/harddisk:/showtech/showtech-custom-system-2023-Jun-16.194549.UTC.tgz
++ Show tech end time: 2023-Jun-16.195425.UTC ++
```

The following example shows the output of the **show tech-support custom sysadmin** command:

```
Router# show tech-support custom sysadmin
Thu Jan 11 17:45:46.429 PST
++ Show tech start time: 2024-Jan-11.174606.PST ++
Thu Jan 11 17:46:07 PST 2024 Waiting for gathering to complete
.Thu Jan 11 17:46:10 PST 2024 Waiting for Sysadmin show tech-support collection
...................................Thu Jan 11 18:17:11 PST 2024 Please collect Admin show
tech-support ctrace in addition to any sysadmin show-tech-support collection

Thu Jan 11 18:17:11 PST 2024 Compressing show tech output
Show tech output available at 0/RP0/CPU0 :
/harddisk:/showtech/showtech-F9-custom-sys-admin-2024-Jan-11.174606.PST.tgz
++ Show tech end time: 2024-Jan-11.181723.PST ++
```

show tech-support mgbl

To collect the logs or traces for gRPC module, Network Configuration Protocol (NETCONF) module, and telemetry, use the **show tech-support mgbl** command in the XR EXEC mode.

show tech-support mgbl {file | grpc | list-CLIs | location | netconf | rack | telemetry | time-out}

Syntax Description		
mgbl	Executes the commands for manageability components.	

file	Specifies a file name with or without a file path where the output is stored.
	You can either specify the filename or the path of the file.
	• To specify only the name of the file, use this command:
	show tech-support mgbl file *filename*
	• To specify the file path, use this command:
	show tech-support mgbl file *filepath*
	Valid file path options are:
	• **apphost:** *filename*
	• **config:** *filename*
	• **disk0:** *filename*
	• **ftp:** *filename*
	• **harddisk:** *filename*
	• **rootfs:** *filename*
	• **tftp:** *filename*

show tech-support mgbl grpc	Collects the logs or traces for gRPC module.
list-CLIs	Lists the CLIs related to the manageability components.
location	Specifies the node location.
show tech-support mgbl netconf	Collects the logs or traces for Network Configuration Protocol (NETCONF) module.
rack	Specifies the rack (0/1/2).
show tech-support mgbl telemetry	Collects the logs or traces for telemetry.
time-out	Specifies the timeout configuration for each show command in seconds. The default value is 900 seconds and its ranges between 120-3600 seconds.

Command Default

• The command output is compressed.

• The command does not support location-based collection.

Command Modes   XR EXEC mode

Command History

Release	Modification
Release 24.1.1	This command was introduced.

Usage Guidelines   This command generates tech-support information that is useful for Cisco Technical Support representatives when troubleshooting a router. By default, the output of this command is saved on the router's hard disk in a file with *.tgz* extension. You can share this file with Cisco Technical Support. To share, use the **copy** command to copy the *.tgz* file to a server or local machine. For example, **copy harddisk:/showtech/***name.tgz* **tftp://***server_path*.

For Cisco Technical Support contact information, see the 'Obtaining Documentation and Submitting a Service Request' section in the Preface.

Task ID

Task ID	Operations
cisco-support	read

This example shows the output of the **show tech-support mgbl** command.

```
RP/0/RP0/CPU0:R0#show tech-support mgbl ?
  file       Specify a valid file name (e.g. disk0:tmp.log)
  grpc       Collect showtech for grpc(cisco-support)
  list-CLIs  list the commands that would be run (don't execute)(cisco-support)
  location   Specify a location(cisco-support)
  netconf    Collect showtech for netconf(cisco-support)
  rack       Specify a rack(cisco-support)
  telemetry  Collect showtech for telemetry(cisco-support)
  time-out   per show command timeout configuration(cisco-support)
  <cr>
```

Note   The **show tech-support mgbl** command does not support location-based collection.

```
RP/0/RP0/CPU0:R0#show tech-support mgbl location 0/RP0/CPU0
Mon Feb 19 02:37:03.652 UTC
++ Show tech start time: 2024-Feb-19.023703.UTC ++
This show tech-support doesn't support location based collection. Exiting.
++ Show tech end time: 2024-Feb-19.023703.UTC ++
```

show tech-support mgbl grpc

To collect the logs or traces for gRPC module, use the **show tech-support mgbl grpc** command in the XR EXEC mode.

show tech-support mgbl grpc file *{filename | filepath}*

Syntax Description		
mgbl	Executes the commands for manageability components.	
grpc	Collects the logs or traces for gRPC module.	
file	Specifies a file name with or without a file path where the output is stored.	
filename	Specifies the name of the file.	
	show tech-support mgbl grpc file *filename*	
filepath	Specifies the file path with the file name.	
	show tech-support mgbl grpc file *filepath*	
	Valid file path options are:	
	• **apphost:** *filename*	
	• **config:** *filename*	
	• **disk0:** *filename*	
	• **ftp:** *filename*	
	• **harddisk:** *filename*	
	• **rootfs:** *filename*	
	• **tftp:** *filename*	

Command Default

• The command output is compressed.

• The command does not support location-based collection.

Command Modes

XR EXEC mode

Command History

Release	Modification
Release 24.1.1	This command was introduced.

Usage Guidelines

This command generates tech-support information that is useful for Cisco Technical Support representatives when troubleshooting a router. By default, the output of this command is saved on the router's hard disk in a file with *.tgz* extension. You can share this file with Cisco Technical Support. To share, use the **copy** command to copy the *.tgz* file to a server or local machine. For example, **copy harddisk:/showtech/***name.tgz* **tftp://***server_path*.

For Cisco Technical Support contact information, see the 'Obtaining Documentation and Submitting a Service Request' section in the Preface.

Task ID

Task ID	Operations
cisco-support	read

This example shows the output of the **show tech-support mgbl grpc file** command.

```
RP/0/RP0/CPU0:R0#show tech-support mgbl grpc file disk0:tmp.log
Fri Feb  2 06:12:15.098 UTC
++ Show tech start time: 2024-Feb-02.061215.UTC ++
Fri Feb  2 06:12:16 UTC 2024 Waiting for gathering to complete
............
Fri Feb  2 06:12:53 UTC 2024 Compressing show tech output
Show tech output available at 0/RP0/CPU0 : /disk0:/tmp.log.tgz
++ Show tech end time: 2024-Feb-02.061254.UTC ++
```

Note   The **show tech-support mgbl grpc** command does not support location-based collection.

```
RP/0/RP0/CPU0:R0#show tech-support mgbl grpc location 0/RP0/CPU0
Fri Feb  2 06:13:34.590 UTC
++ Show tech start time: 2024-Feb-02.061334.UTC ++
This show tech-support doesn't support location based collection. Exiting.
++ Show tech end time: 2024-Feb-02.061335.UTC ++
```

show tech-support mgbl netconf

To collect the logs or traces for Network Configuration Protocol (NETCONF) module, use the **show tech-support mgbl netconf** command in the XR EXEC mode.

show tech-support mgbl netconf file *{filename | filepath}*

Syntax Description		
mgbl	Executes the commands for manageability components.	

netconf	Collects the logs or traces for Network Configuration Protocol (NETCONF) module.

file	Specifies a file name with or without a file path where the output is stored.

filename	Specifies the name of the file.
	show tech-support mgbl netconf file *filename*

filepath	Specifies the file path with the file name.
	show tech-support mgbl netconf file *filepath*
	Valid file path options are:
	• **apphost:** *filename*
	• **config:** *filename*
	• **disk0:** *filename*
	• **ftp:** *filename*
	• **harddisk:** *filename*
	• **rootfs:** *filename*
	• **tftp:** *filename*

Command Default

• The command output is compressed.

• The command does not support location-based collection.

Command Modes   XR EXEC mode

Command History

Release	Modification
Release 24.1.1	This command was introduced.

Usage Guidelines   This command generates tech-support information that is useful for Cisco Technical Support representatives when troubleshooting a router. By default, the output of this command is saved on the router's hard disk in a file with *.tgz* extension. You can share this file with Cisco Technical Support. To share, use the **copy** command to copy the *.tgz* file to a server or local machine. For example, **copy harddisk:/showtech/***name.tgz* **tftp://***server_path*.

For Cisco Technical Support contact information, see the 'Obtaining Documentation and Submitting a Service Request' section in the Preface.

Task ID

Task ID	Operations
cisco-support	read

This example shows the output of the **show tech-support mgbl netconf file** command.

```
RP/0/RP0/CPU0:R0#show tech-support mgbl netconf file disk0:tmp.log
Fri Feb  2 06:12:15.098 UTC
++ Show tech start time: 2024-Feb-02.061215.UTC ++
Fri Feb  2 06:12:16 UTC 2024 Waiting for gathering to complete
............
Fri Feb  2 06:12:53 UTC 2024 Compressing show tech output
Show tech output available at 0/RP0/CPU0 : /disk0:/tmp.log.tgz
++ Show tech end time: 2024-Feb-02.061254.UTC ++
```

Note   The **show tech-support mgbl netconf** command does not support location-based collection.

```
RP/0/RP0/CPU0:R0#show tech-support mgbl netconf location 0/RP0/CPU0
Fri Feb  2 06:13:34.590 UTC
++ Show tech start time: 2024-Feb-02.061334.UTC ++
This show tech-support doesn't support location based collection. Exiting.
++ Show tech end time: 2024-Feb-02.061335.UTC ++
```

show tech-support mgbl telemetry

To collect the logs or traces for telemetry, use the **show tech-support mgbl telemetry** command in the XR EXEC mode.

show tech-support mgbl telemetry file *{filename | filepath}*

Syntax Description

mgbl	Executes the commands for manageability components.
telemetry	Collects the logs or traces for telemetry.
file	Specifies a file name with or without a file path where the output is stored.
filename	Specifies the name of the file. **show tech-support mgbl telemetry file** *filename*
filepath	Specifies the file path with the file name. **show tech-support mgbl telemetry file** *filepath* Valid file path options are: • **apphost:** *filename* • **config:** *filename* • **disk0:** *filename* • **ftp:** *filename* • **harddisk:** *filename* • **rootfs:** *filename* • **tftp:** *filename*

Command Default

• The command output is compressed.

• The command does not support location-based collection.

Command Modes

XR EXEC mode

Command History

Release	Modification
Release 24.1.1	This command was introduced.

Usage Guidelines

This command generates tech-support information that is useful for Cisco Technical Support representatives when troubleshooting a router. By default, the output of this command is saved on the router's hard disk in a file with *.tgz* extension. You can share this file with Cisco Technical Support. To share, use the **copy** command to copy the *.tgz* file to a server or local machine. For example, **copy harddisk:/showtech/***name.tgz* **tftp://***server_path*.

For Cisco Technical Support contact information, see the 'Obtaining Documentation and Submitting a Service Request' section in the Preface.

Task ID		
	Task ID	**Operations**
	cisco-support	read

This example shows the output of the **show tech-support mgbl telemetry file** command.

```
RP/0/RP0/CPU0:R0#show tech-support mgbl telemetry file disk0:tmp.log
Fri Feb  2 06:12:15.098 UTC
++ Show tech start time: 2024-Feb-02.061215.UTC ++
Fri Feb  2 06:12:16 UTC 2024 Waiting for gathering to complete
............
Fri Feb  2 06:12:53 UTC 2024 Compressing show tech output
Show tech output available at 0/RP0/CPU0 : /disk0:/tmp.log.tgz
++ Show tech end time: 2024-Feb-02.061254.UTC ++
```

Note   The **show tech-support mgbl telemetry** command does not support location-based collection.

```
RP/0/RP0/CPU0:R0#show tech-support mgbl telemetry location 0/RP0/CPU0
Fri Feb  2 06:13:34.590 UTC
++ Show tech start time: 2024-Feb-02.061334.UTC ++
This show tech-support doesn't support location based collection. Exiting.
++ Show tech end time: 2024-Feb-02.061335.UTC ++
```

show tech-support multicast address-family

To collect the logs related to the multicast configurations specific to the address-family on the device, use the **show tech-support multicast address-family** command in the XR EXEC mode.

show tech-support multicast address-family { **ipv4** | **ipv6** } **hardware**

Syntax Description

multicast	Shows multicast related information
address-family	Collects Global Table address family specific information.
ipv4 | **ipv6**	Collects ipv4 or ipv6 information.
hardware	Specifies the hardware platform information.

Command Default

• The command output is compressed.

Command Modes

XR EXEC mode

Command History

Release	Modification
Release 24.4.1	The command was modified to include multicast information.

Usage Guidelines

This command generates tech-support information that is useful for Cisco Technical Support representatives when troubleshooting a router. By default, the output of this command is saved on the router's hard disk in a file with *.tgz* extension. You can share this file with Cisco Technical Support. To share, use the **copy** command to copy the *.tgz* file to a server or local machine. For example, **copy harddisk:/showtech/***name.tgz* **tftp://***server_path*.

For Cisco Technical Support contact information, see the 'Obtaining Documentation and Submitting a Service Request' section in the Preface.

Task ID

Task ID	Operations
cisco-support	read

This example shows the output of the **show tech-support multicast address-family ipv4 hardware** command.

```
RP/0/RP0/CPU0:R0#show tech-support multicast address-family ipv4 hardware
Oct 14 07:15:45.161 mfwd_ipv4_hw/event 0/0/CPU0 t6629 Rte, seq #1 route: action commit for
 route (192.0.2.1,198.51.100.1/64) End [Slotmask: 0x1, MGID: 517]
Oct 14 07:15:45.161 mfwd_ipv4_hw/event 0/0/CPU0 t6629 Rte, seq #1 route: action commit for
 route (192.0.2.1,198.51.100.1/64) event
Oct 14 07:15:45.161 mfwd_ipv4_hw/event 0/0/CPU0 t6629 IDB ctx, seq #1 Platform_idb_opera
DONE action 0x4000 idb ifh 0x2000160 interface type 0x3
Oct 14 07:15:45.161 mfwd_ipv4_hw/event 0/0/CPU0 t6629 Intf del, seq #3 RPF signal flag for
 (192.0.2.1,198.51.100.1/64) is set to 0
Oct 14 07:15:45.161 mfwd_ipv4_hw/event 0/0/CPU0 t6629 Intf del, seq #2 Successfully turned
 A flag OFF for Bundle-Ether1 (0x2000160) in route (192.0.2.1,198.51.100.1/64)
Oct 14 07:15:45.161 mfwd_ipv4_hw/event 0/0/CPU0 t6629         intf-type=3, mdt-type=0,
#bundle-members=0
```

```
Oct 14 07:15:45.161 mfwd_ipv4_hw/event 0/0/CPU0 t6629 intf: action delete intf Bundle-Ether1
ifh 0x2000160 non-local (ul ifh 0x0) for route (192.0.2.1,198.51.100.1/64)
```