



Virtual Firewall Commands on Cisco IOS XR Software

The Cisco IOS XR Virtual Firewall (VFW) application runs on the Cisco XR 12000 multiservice blade (MSB). A dual core CPU on the MSB runs the Cisco IOS XR software (standard edge engine code and firewall code) on core 1 and SanOS (Linux) with the Virtual Firewall application code on core 0.

This module describes the Cisco IOS XR software commands used to configure and integrate a VFW. The Cisco IOS XR software configuration sets up the interaction between the firewall and the router. Each VFW (or firewall context) is configured in the VFW application using SanOS on core 0. The VFW application commands are described in subsequent modules.

For detailed information about VFW concepts, configuration tasks, and examples, see *Cisco IOS XR Virtual Firewall Configuration Guide*. For information regarding the Cisco IOS XR software, see *Cisco IOS XR Getting Started Guide*.

default-interface-name

To configure the default interface that represents any unprotected interface in the router, use the **default-interface-name** command in firewall configuration mode. To remove the default interface configuration, use the **no** form of this command.

default-interface-name *vfw-interface-name*

no default-interface-name

Syntax Description	<i>vfw-interface-name</i>	Name of the default interface that represents any unprotected interface in the router.
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Defaults	No default behavior or values
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Command Modes	Firewall configuration
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Command History	Release	Modification
	Release 3.5.0	This command was introduced on the multiservice blade (MSB) for the Cisco XR 12000 Series Router.
	Release 3.6.0	No modification.
	Release 3.7.0	No modification.

Usage Guidelines	To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the <i>Configuring AAA Services on Cisco IOS XR Software</i> module of the <i>Cisco IOS XR System Security Configuration Guide</i> .
	To remove the service location from a configuration, you must first remove the default interface name. The <i>vfw-interface-name</i> argument must match the interface name that is configured on the VFW application. Refer to <i>Cisco Virtual Firewall Configuration Guide</i> for additional information.

Task ID	Task ID	Operations
	firewall	read, write

Examples	The following example shows how to create a firewall named “fw1” in Cisco IOS XR software and specify a default interface named “outside.”
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```
RP/0/0/CPU0:router# configure
RP/0/0/CPU0:router(config)# firewall fw1
RP/0/0/CPU0:router(config-firewall)# service-location preferred-active 0/0/CPU0
preferred-standby 0/1/CPU0 auto-revert
RP/0/0/CPU0:router(config-firewall)# default-interface-name outside
```

Related Commands	Command	Description
	failure-action	Configures the action to take if a failure or misconfiguration occurs.
	firewall	Configures a virtual firewall in Cisco IOS XR software.
	firewall (interface)	Configures the firewall attachment.
	service-location	Configures a physical interface on the multiservice blade (MSB) to be associated with a virtual firewall or virtual VASI interface.

failure-action

To configure the action to take if a failure or misconfiguration occurs, use the **failure-action** command in firewall configuration mode. To revert to the default failure action, use the **no** form of this command.

failure-action { **drop** | **pass** | **shutdown** }

no failure-action

Syntax Description

drop	Drops all packets destined for the firewall.
pass	Bypasses the firewall.
shutdown	Shuts down the attached interface.

Defaults

The default is **drop**.

Command Modes

Firewall configuration

Command History

Release	Modification
Release 3.5.0	This command was introduced on the multiservice blade (MSB) for the Cisco XR 12000 Series Router.
Release 3.6.0	No modification.
Release 3.7.0	No modification.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Use the **failure-action** command to override the default failure policy. If there is a problem with the firewall attachment, the default (drop) behavior automatically drops all packets that should be diverted. All IPv4 unicast and broadcast packets are dropped, but multicast or packets that are not IPv4 packets are processed normally.

- Use the **bypass** keyword to specify that if a firewall attachment has a problem, all packets are to pass through without firewall protection.
- Use the **shutdown** keyword to specify that if a firewall attachment has a problem, the interface is shut down. All the hello or keepalive packets are dropped, and the interface is not used (if possible).

Task ID

Task ID	Operations
firewall	read, write

Examples

The following example shows how to create a firewall named “fw1” in Cisco IOS XR software and configure the failure action to be “shutdown.”

```
RP/0/0/CPU0:router# configure
RP/0/0/CPU0:router(config)# firewall fw1
RP/0/0/CPU0:router(config-firewall)# service-location preferred-active 0/0/CPU0
preferred-standby 0/1/CPU0 auto-revert
RP/0/0/CPU0:router(config-firewall)# failure-action shutdown
```

Related Commands

Command	Description
default-interface-name	Configures the default interface that represents any unprotected interface in the router.
firewall	Configures a virtual firewall in Cisco IOS XR software.
firewall (interface)	Configures the firewall attachment.
service-location	Configures a physical interface on the multiservice blade (MSB) to be associated with a virtual firewall or virtual VASI interface.

firewall

To configure a virtual firewall in Cisco IOS XR software, use the **firewall** command in global configuration mode. To remove the virtual firewall configuration, use the **no** form of this command.

firewall *context-name*

no firewall *context-name*

Syntax Description

<i>context-name</i>	Name of the virtual firewall.
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Defaults

No default behavior or values

Command Modes

Global configuration

Command History

Release	Modification
Release 3.5.0	This command was introduced on the multiservice blade (MSB) for the Cisco XR 12000 Series Router.
Release 3.6.0	No modification.
Release 3.7.0	No modification.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

A virtual firewall is tied to a physical location on the MSB using the [service-location](#) command. To remove the service location from a configuration, you must first remove the default interface name. Removing the service location also removes the firewall configuration.

The *context-name* argument must match the firewall context name that is configured on the VFW application. Refer to the *Cisco IOS XR Virtual Firewall Configuration Guide* for additional information.

Task ID

Task ID	Operations
firewall	read, write

Examples

The following example shows how to create a firewall named “fw1” in Cisco IOS XR software:

```
RP/0/0/CPU0:router# configure
RP/0/0/CPU0:router(config)# firewall fw1
RP/0/0/CPU0:router(config-firewall)# service-location preferred-active 0/0/CPU0
preferred-standby 0/1/CPU0 auto-revert
RP/0/0/CPU0:router(config-firewall)# default-interface-name outside
RP/0/0/CPU0:router(config-firewall)# failure-action shutdown
```

Related Commands	Command	Description
	default-interface-name	Configures the default interface that represents any unprotected interface in the router.
	failure-action	Configures the action to take if a failure or misconfiguration occurs.
	firewall (interface)	Configures the firewall attachment.
	service-location	Configures a physical interface on the multiservice blade (MSB) to be associated with a virtual firewall or virtual VASI interface.

firewall (interface)

To attach a virtual firewall to one of the router interfaces, use the **firewall** command in interface configuration mode.

firewall *context-name* **firewall-interface** *vfw-interface-name*

Syntax Description

<i>context-name</i>	Specifies the name of the firewall.
firewall-interface <i>vfw-interface-name</i>	Specifies the name of the firewall interface on the VFW application.

Defaults

No default behavior or values

Command Modes

Interface configuration

Command History

Release	Modification
Release 3.5.0	This command was introduced on the multiservice blade (MSB) for the Cisco XR 12000 Series Router.
Release 3.6.0	No modification.
Release 3.7.0	No modification.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

The interface firewall configuration is rejected if the interface type does not support firewall attachments, and the following error is returned:

```
!!% Firewall Attachments not supported on this interface type
```

The supported interface types are:

- Ethernet main interfaces and subinterfaces
- Packet over SONET/SDH (POS) and channelized POS main interfaces and subinterfaces
- ATM main interfaces and subinterfaces
- VRF-Aware Service Infrastructure (VASI) interfaces

The *context-name* argument and the *vfw-interface-name* argument (attachment ID) pair must be unique on each interface where the attachment configuration is applied. If two or more interfaces have an attachment configuration applied with the same *context-name* and *vfw-interface-name* pair, the configuration is accepted but both attachments are forced down and the following error message occurs:

```
LC/0/2/CPU0:Feb 22 17:34:29.251 : rspp_ma[234]: %RSPP_MA-4-DUP_CREATE : Attachment of
service ctx1 of type Firewall to interface POS0/2/0/0 with attachment ID insidel invalid
due to duplicate attachment to interface POS0/2/0/3. Both attachments will be
invalidated.
```

The *context-name* argument and the *vw-interface-name* argument must both match the firewall context and interface names that are configured in the VFW application. Refer to *Cisco IOS XR Virtual Firewall Configuration Guide* for additional information.

Task ID	Task ID	Operations
	interface	read, write

Examples

The following sample configuration associates interface “inside1” of firewall context “ctx1” with the router physical interface on POS0/2/0/0:

```
RP/0/0/CPU0:router# configure
RP/0/0/CPU0:router(config)# interface POS0/2/0/0
RP/0/0/CPU0:router(config-if)# firewall ctx1 firewall-interface inside1
```

Related Commands

Command	Description
firewall	Configures a virtual firewall in Cisco IOS XR software.
interface FirewallManagement	Configures the FMI.
service firewall attach location	Attaches to the VFW application.
show services firewall attachments	Displays any firewall attachments that have been created and provides any failure status information.
show services firewall interfaces	Displays information about individual firewall instances.

hw-module service firewall location

To configure the firewall service as the role for a specific node, use the **hw-module service** command in global configuration mode. To remove the firewall service role from that node, use the **no** form of this command.

hw-module service firewall location *node-id*

no hw-module service firewall location *node-id*

Syntax Description	<i>node-id</i>	Specifies the location where you want the firewall service role configured. The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.
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Defaults	No default behavior or values
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Command Modes	Global configuration
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Command History	Release	Modification
	Release 3.5.0	This command was introduced on the multiservice blade (MSB) for the Cisco XR 12000 Series Router.
	Release 3.6.0	No modification.
	Release 3.7.0	No modification.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

The MSB is automatically reset to 1 whenever the firewall service role is reloaded.

Task ID	Task ID	Operations
	root	read, write

Examples

The following example shows how to configure the firewall service role on the MSB:

```
RP/0/0/CPU0:router(config)# hw-module service firewall location 0/3/CPU0
```

Related Commands	Command	Description
	show service role	Displays the service role of the MSB.

interface FirewallManagement

To provide remote access to manage the virtual firewall contexts, use the **interface FirewallManagement** command in global configuration mode. To remove the firewall management interface (FMI), use the **no** form of this command.

interface FirewallManagement *number* **firewall** *context-name* **follow-active**

no interface FirewallManagement *number*

Syntax Description

<i>number</i>	Number of the FMI. Range is 1 to 65535.
<i>context-name</i>	Particular firewall instance on the MSB core.
follow-active	Attaches the interface to the active instance of the firewall.

Defaults

No default behavior or values

Command Modes

Global configuration

Command History

Release	Modification
Release 3.5.0	This command was introduced on the MSB for the Cisco XR 12000 Series Router.
Release 3.6.0	No modification.
Release 3.7.0	No modification.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

The **interface FirewallManagement** command provides a remote management tool for the virtual firewall contexts. The **firewall** keyword associates the FMI with a particular firewall context on the VFW application. Any additional interface configuration items must follow, such as defining the VRF or the IP address for the interface. The IP connectivity does not work unless the FMI on the VFW application is configured with an IP address on the same network.

The *context-name* argument must match the firewall context name that is configured in the VFW application. Refer to the [“Configuring Virtual Firewalls on the Multiservice Blade”](#) module in *Cisco IOS XR Virtual Firewall Configuration Guide* for additional information.

Task ID

Task ID	Operations
interface	read, write

Examples

The following example shows how to configure FirewallManagement1 as an active virtual firewall interface, including its IP address, and to associate it with the active instance of the firewall on the VFW application:

```
RP/0/0/CPU0:router# configure
RP/0/0/CPU0:router(config)# interface FirewallManagement1
RP/0/0/CPU0:router(config-if)# ipv4 address 10.1.1.3 255.255.255.0
RP/0/0/CPU0:router(config-if)# firewall fw1 follow-active
```

Related Commands

Command	Description
firewall	Configures a virtual firewall in Cisco IOS XR software.
firewall (interface)	Configures the firewall attachment.
service firewall attach location	Attaches to the VFW application.
show services firewall attachments	Displays any firewall attachments that have been created and provides any failure status information.
show services firewall interfaces	Displays information about individual firewall instances.

service firewall attach location

To attach to the VFW application, use the **service firewall attach location** command in EXEC mode.

```
service firewall attach location node-id
```

Syntax Description	<i>node-id</i>	Specifies the location where you want to attach. The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.
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Defaults	No default behavior or values
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Command Modes	EXEC
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Command History	Release	Modification
	Release 3.5.0	This command was introduced on the multiservice blade (MSB) for the Cisco XR 12000 Series Router.
	Release 3.6.0	No modification.
	Release 3.7.0	No modification.

Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

You must be attached to the VFW application to configure a firewall context.

The **service firewall attach location** attaches from the MSB to the VFW application. After you use the command, use `admin` as the username/password combination to get a prompt in the VFW application. Refer to the [“Configuring Virtual Firewalls on the Multiservice Blade”](#) module in *Cisco IOS XR Virtual Firewall Configuration Guide* to see an example of configuring a firewall in the VFW application.

Task ID	Task ID	Operations
	firewall	execute

Examples

The following example shows how to attach to the VFW application:

```
RP/0/0/CPU0:router# service firewall attach location 0/3/CPU0
```

```
firewall login: admin
Password:
Cisco Application Control Software (ACSW)
TAC support: http://www.cisco.com/tac
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other third parties and are used and distributed under license.
```

service firewall attach location

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firewall/Admin#

Related Commands

Command	Description
firewall	Configures a virtual firewall in Cisco IOS XR software.
firewall (interface)	Configures the firewall attachment.
interface	Configures the FMI.
FirewallManagement	
show service role	Displays the service role of the MSB.
show services firewall attachments	Displays any firewall attachments that have been created and provides any failure status information.
show services firewall interfaces	Displays information about individual firewall instances.

show service role

To display the current service role on the multiservice blade (MSB), use the **show service role** command in EXEC mode.

show service role

Syntax Description This command has no arguments or keywords.

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.5.0	This command was introduced on the MSB for the Cisco XR 12000 Series Router.
	Release 3.6.0	No modification.
	Release 3.7.0	No modification.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Task ID	Task ID	Operations
	firewall	read, write

Examples The following example displays sample output from the **show service role** command:

```
RP/0/0/CPU0:router# show service role
```

```
Node          Configured Role    Enacted Role      Enabled Services
-----
0/3/CPU0     Firewall           Firewall          Firewall, VASI
```

Related Commands	Command	Description
	firewall	Configures a virtual firewall in Cisco IOS XR software.
	hw-module service firewall location	Configures the firewall service as a role on the MSB.
	firewall (interface)	Configures the firewall attachment.

Command	Description
interface FirewallManagement	Configures the FMI.
show services firewall attachments	Displays any firewall attachments that have been created and provides any failure status information.
show services firewall interfaces	Displays information about individual firewall instances.

show services firewall attachments

To display any firewall attachments that have been made, including attachments that are in the failed state (and the reason for the failure), use the **show services firewall attachments** command in EXEC mode.

show services firewall attachments [**interface** *interface-name* | **summary**]

Syntax Description	Parameter	Description
	interface	(Optional) Displays the firewall attachments for a specific interface.
	<i>interface-name</i>	(Optional) Name of the interface.
	summary	(Optional) Provides information about the firewall attachments.

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.5.0	This command was introduced on the multiservice blade (MSB) for the Cisco XR 12000 Series Router.
	Release 3.6.0	No modification.
	Release 3.7.0	No modification.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Use the command keywords to modify or limit the information that is displayed for firewall instances. Refer to the notes in the examples within this section.

Task ID	Task ID	Operations
	firewall	read

Examples The following example displays sample output from the **show services firewall attachments** command:

```
RP/0/0/CPU0:router# show services firewall attachments

3 firewall attachment(s) configured

! POS0/2/0/0
!   Firewall Name:      ctx1
!   Firewall Interface: inside1
!   State:              Pass Through
```

show services firewall attachments

```

!      Info:                Duplicate attachment exists

! POS0/2/0/1
!      Firewall Name:       ctx1
!      Firewall Interface:  inside1
!      State:               Pass Through
!      Info:                Duplicate attachment exists

FirewallManagement1
  Firewall Name:           ctx1
  Firewall Interface:     Follow-active
  State:                  Diverting to 0/3/CPU0

```



Note

The output is sorted by the interface handle. The Firewall Name and FW Interface Name fields are truncated to 24 characters.

Related Commands

Command	Description
firewall (interface)	Configures the firewall attachment.
interface	Configures the FMI.
FirewallManagement	
show services firewall interfaces	Displays information about individual firewall instances.

show services firewall interfaces

To verify if a firewall context exists between the Cisco IOS XR configuration and the VFW application, use the **show services firewall interfaces** command in EXEC mode.

```
show services firewall interfaces [context-name] [summary | detail | unoperational]
[location node-id]
```

Syntax Description	
<i>context-name</i>	(Optional) Name of the firewall context.
summary	(Optional) Provides a summary of all the firewall instances.
detail	(Optional) Provides detailed information about each firewall instance.
unoperational	(Optional) Provides information about any unoperational firewall instances.
location <i>node-id</i>	(Optional) Specifies the location of the firewall. The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.

Defaults No default behavior or values

Command Modes EXEC

Command History	Release	Modification
	Release 3.5.0	This command was introduced on the multiservice blade (MSB) for the Cisco XR 12000 Series Router.
	Release 3.6.0	No modification.
	Release 3.7.0	No modification.

Usage Guidelines To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, see the *Configuring AAA Services on Cisco IOS XR Software* module of the *Cisco IOS XR System Security Configuration Guide*.

Use the command keywords to modify or limit the information that is displayed for firewall instances. Refer to the notes in the examples within this section.

Task ID	Task ID	Operations
	firewall	read
	interface	read

Examples

The following example displays sample output from the **show services firewall interfaces** command when the **summary** option is used:

```
RP/0/0/CPU0:router# show services firewall interfaces summary

Status codes: > Firewall operating correctly
                ! Interface not configured in MSB core
                - No attachment configured
                d Default interface
                D Default interface (overriding attachment configuration)
                m Management interface

Firewall name          Location (State)
  St Interface name    Attached to
-----
bar                    0/0/CPU0 (Active)
  > dmz                GigabitEthernet 0/1/0/0
  ! inside             POS 0/2/0/3
  d> outside           <default>
  m> <Management: follow-active> FirewallManagement 3
  m> <Management: follow-standby> FirewallManagement 4

bar                    0/3/CPU0 (Standby)
  > dmz                GigabitEthernet 0/1/0/0
  ! inside             POS 0/2/0/3
  d> outside           <default>
  m> <Management: follow-active> FirewallManagement 3
  m> <Management: follow-standby> FirewallManagement 4

fw1                    0/0/CPU0 (Dormant)
  [No interfaces]

fw1                    0/3/CPU0 (Dormant)
  [No interfaces]

firewall_A             0/3/CPU0 (Active)
  ! dmz                POS 0/2/0/1
  - firewall_interface_A
  m> <Management: follow-active> FirewallManagement 23

firewall_B             0/0/CPU0 (Active)
  D> outside           <default>
  > customer           GigabitEthernet 0/1/0/1
  m- <Management: follow-active>
```

**Note**

The output is sorted by the firewall name (in MIB-lexicographic order), and then by node ID. The firewall name can be specified to limit the output to a particular firewall, or the location can be given to filter the output by node—or both options can be given to restrict the output to a particular firewall instance.

The following example displays sample output from the **show services firewall interfaces** command without the **summary** option:

```
RP/0/0/CPU0:router# show services firewall interfaces
```

Firewall name	Location	State	FW ID	Mgmt I/F	I/Fs
bar	0/0/CPU0	Active	3	FwMgmt3	5
	0/3/CPU0	Standby	6	FwMgmt4	5
fw1	0/0/CPU0	Dormant	4	---	0
	0/3/CPU0	Dormant	2	---	0
firewall_A	0/3/CPU0	Active	3	FwMgmt23	3
firewall_B	0/0/CPU0	Active	5	---	3



Note

- The management interfaces are indicated by special strings rather than by their actual names on the VFW application.
- The firewall name or location can be specified to limit the output, and the firewalls are sorted by name in MIB-lexicographic order, then by node ID. The interfaces are also sorted by name in MIB-lexicographic order within each firewall.
- If the **unoperational** keyword is used, only the interfaces that do not have an operational attachment or that have a configured attachment and are also configured as the “other” interface (such as the ones marked with “D” or not marked with “>”) are displayed. Firewalls without unoperational interfaces are not displayed. The output can be restricted further by identifying additional firewall names or locations.

The following example displays sample output from the **show services firewall interfaces** command with the **detail** option:

```
RP/0/0/CPU0:router# show services firewall interfaces detail
```

```
Firewall: bar, location 0/0/CPU0 (Active):
  Firewall ID: 3
  Interface: dmz
    Interface ID: 3
    Attached to: GigabitEthernet 0/1/0/0
    Attachment is operational
  Interface: inside
    Interface ID: none (not configured in MSB core)
    Attached to: POS 0/2/0/3
    Attachment is not operational
  Interface: outside
    Interface ID: 5
    Default interface
  Interface: <Management: follow-active>
    Interface ID: 1
    Attached to: FirewallManagement 3
    Attachment is operational
    Management Interface Hardware Identifiers received
  Interface: <Management: follow-standby>
    Interface ID: 1
    Attached to: FirewallManagement 4
    Attachment is operational
    Management Interface Hardware Identifiers received

Firewall: bar, location 0/3/CPU0 (Standby):
  Firewall ID: 6
  Interface: dmz
```

show services firewall interfaces

```

    Interface ID: 3
    Attached to: GigabitEthernet 0/1/0/0
    Attachment is operational
Interface: inside
    Interface ID: none (not configured in MSB core)
    Attached to: POS 0/2/0/3
    Attachment is not operational
Interface: outside
    Interface ID: 5
    Default interface
Interface: <Management: follow-active>
    Interface ID: 1
    Attached to: FirewallManagement 3
    Attachment is operational
    Management Interface Hardware Identifiers received
Interface: <Management: follow-standby>
    Interface ID: 1
    Attached to: FirewallManagement 4
    Attachment is operational
    Management Interface Hardware Identifiers received

Firewall: fw1, location 0/0/CPU0 (Dormant)
    Firewall ID: 4
    [No interfaces]

Firewall: fw1, location 0/3/CPU0 (Dormant)
    Firewall ID: 2
    [No interfaces]

Firewall: firewall_name1, location 0/3/CPU0 (Active):
    Firewall ID: 3
    Interface: dmz
        Interface ID: none (not configured in MSB core)
        Attached to: POS0/2/0/1
        Attachment is not operational
    Interface: an_interface_with_a_long_name
        Interface ID: 6
        Not attached
    Interface: <Management: follow-active>
        Interface ID: 2
        Attached to: FirewallManagement23
        Attachment is operational
        Management Interface Hardware Identifiers received

Firewall: firewall_name2, location 0/0/CPU0 (Active)
    Firewall ID: 5
    Interface: outside
        Interface ID: 7
        Default interface
        (Attachment to GigabitEthernet0/1/0/3 is not operational)
    Interface: customer
        Interface ID: 8
        Attached to: GigabitEthernet0/1/0/1
        Attachment is operational
    Interface: <Management: follow-active>
        Interface ID: 9
        Not attached
        Management Interface Hardware Identifiers received

```



Note

The output is sorted by firewall name, node ID, and interface name in MIB-lexicographic order. The output can be restricted further by specifying additional firewall names or locations.

Related Commands

Command	Description
firewall	Configures a virtual firewall in Cisco IOS XR software.
hw-module service firewall location	Configures the firewall service as a role on the MSB.
firewall (interface)	Configures the firewall attachment.
interface FirewallManagement	Configures the FMI.
service firewall attach location	Attaches to the VFW application.
show service role	Displays the service role of the MSB.
show services firewall attachments	Displays any firewall attachments that have been created and provides any failure status information.

■ show services firewall interfaces