1 NETCONF Commands

Command	Function
netconf enable	Enable the NETCONF function.
netconf max-sessions	Configure the maximum number of session connections supported by NETCONF.
netconf port	Configure the port ID of the NETCONF server.
netconf timeout	Configure the timeout time of the Edit-config operation in a NETCONF session.
netconf yang multi-revision	Enable the YANG module multi-version notification function of NETCONF.
Ошибка: источник перекрёстной ссылки не найден	Display a rule list that users are associated with, rule list details, and user group information.
show netconf session	Display all current session information of NETCONF.
show netconf statistics	Display global statistics of NETCONF.
show netconf yang file	Display all YANG files supported by a device.
show netconf yang node-path	Display all node paths supported by a device.
show netconf yang tree	Display all YANG model trees supported by a device.

1.1   netconf enable

Function

Run the **netconf enable** command to enable the NETCONF function.

Run the **no** form of this command to disable this function.

Run the **default** form of this command to restore the default configuration.

The NETCONF function is enabled by default.

Syntax

netconf enable

no netconf enable

default netconf enable

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example disables the NETCONF function.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no netconf enable
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.2   netconf max-sessions

Function

Run the **netconf max-sessions** command to configure the maximum number of session connections supported by NETCONF.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The maximum number of session connections supported by NETCONF is **5** by default.

Syntax

netconf max-sessions *max-sessions-numbers*

no netconf max-sessions

default netconf max-sessions

Parameter Description

max-sessions *max-sessions-numbers*: Configures the maximum number of session connections supported by NETCONF. The value range is from 1 to 36.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example sets the maximum number of session connections supported by NETCONF to **10**.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# netconf max-sessions 10
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.3   netconf port

Function

Run the **netconf port** command to configure the port ID of the NETCONF server.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The default port ID of the NETCONF server is **830**.

Syntax

netconf port *port-number*

no netconf port

default netconf port

Parameter Description

port-number: Port ID of the NETCONF server. The value range is from 1025 to 65535.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example sets the port ID of the NETCONF server to 5000.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# netconf port 5000
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.4   netconf timeout

Function

Run the **netconf timeout** command to configure the timeout time of the Edit-config operation in a NETCONF session.

Run the **no** form of this command to remove this configuration.

Run the **default** form of this command to restore the default configuration.

The default timeout time of the Edit-config operation in a NETCONF session is **120** seconds.

Syntax

netconf timeout *timeout*

no netconf timeout

default netconf timeout

Parameter Description

timeout: Timeout time, in seconds. The value range is from 50 to 1200.

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

The timeout time configured in this command for the Edit-config operation is not the duration between the delivery of an XML packet and the return of a reply. This timeout time counts from the completed processing of the XML packet is processed in NETCONF and the start of the business interaction.

Examples

The following example sets the timeout time of the Edit-config operation in a NETCONF session to 60 seconds.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# netconf timeout 60
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.5   netconf yang multi-revision

Function

Run the **netconf yang multi-revision** command to enable the YANG module multi-version notification function of NETCONF.

Run the **no** form of this command to disable this function.

Run the **default** form of this command to restore the default configuration.

The YANG module multi-version notification function of NETCONF is enabled by default.

Syntax

netconf yang multi-revision

no netconf yang multi-revision

default netconf yang multi-revision

Parameter Description

N/A

Command Modes

Global configuration mode

Default Level

14

Usage Guidelines

N/A

Examples

The following example disables the YANG module multi-version notification function of NETCONF.

```
Hostname> enable
Hostname# configure terminal
Hostname(config)# no netconf yang multi-revision
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.6 show netconf session

Function

Run the **show netconf session** command to display all current session information of NETCONF.

Syntax

show netconf session

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example displays all current session information of NETCONF.

```
Hostname> enable
Hostname# show netconf session
************************session information************************
                        Session count: 1
******************************************************************
Session ID            : 25
Session version       : 1
Session transport     : netconf-ssh
Session login IP      : 172.30.31.17
Session login time    : 2019-07-16T05:59:50Z
Session in rpcs       : 0
Session in bad rpcs   : 0
Session out rpc errors  : 0
Session out notification: 0
Session out rpcs      : 0
Session out send fail   : 0
Session get           : 0
Session get config    : 0
Session edit config   : 0
Session copy config   : 0
Session delete config   : 0
```

```
Session close session    : 0
Session unsupport        : 0
Session lock_or_unlock   : 0
=================================================================
```

Table 1-1 Output Fields of the show netconf session Command

Field	Description
Session count	Total number of current sessions
Session ID	Session ID defined internally
Session version	Current NETCONF version No.
Session transport	Transmission protocol used in the current NETCONF connection. At present, only SSH is supported.
Session login IP	IP address of the connected objects in the current session
Session login time	Login time of the current session
Session in rpcs	Total number of correct RPC requests sent in the current session
Session in bad rpcs	Total number of incorrect RPC requests sent in the current session
Session out rpc errors	Total number of RPC replies with error returned in the current session
Session out notification	Total number of notifications output in the current session
Session out rpcs	Total number of RPC replies with success returned in the current session
Session out send fail	Total number of replies that failed to be sent in the current session
Session get	Total number of Get operations in the current session
Session get config	Total number of Get-Config operations in the current session
Session edit config	Total number of Edit-Config operations in the current session
Session copy config	Total number of Copy-Config operations in the current session
Session delete config	Total number of Delete-Config operations in the current session
Session close session	Total number of Close-Session operations in the current session
Session unsupport	Total number of requests unsupported in the current session
Session lock_or_unlock	Total number of Lock and Unlock operations in the current session

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.7   show netconf statistics

Function

Run the **show netconf statistics** command to display global statistics of NETCONF.

Syntax

show netconf statistics

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example displays global statistics of NETCONF.

```
Hostname> enable
Hostname# show netconf statistics
************************statistics information************************
Start time: 2019-07-11T01:37:45Z
        0 Bad hello packets
        2 Connected sessions
        1 Dropped sessions
       67 In rpcs
        0 In bad rpcs
        0 Out rpc errors
        0 Out notification
       67 Out rpcs
        0 Out send fail
       95 Get
       34 Get config
```

```
        0 Copy config
        0 Delete config
        0 Close session
        0 Unsupport
        0 Lock or unlock
================================================================
```

Table 1-1Output Fields of the show netconf statistics Command

Field	Description
Start time	NETCONF start time
Bad hello packets	Number of hello packets with error
Connected sessions	Number of session connections (including dropped sessions)
Dropped sessions	Number of dropped sessions
In rpcs	Number of correct RPC requests in all sessions
In bad rpcs	Number of incorrect RPC requests in all sessions
Out rpc errors	Number of replies with error in all sessions
Out notification	Number of notifications in all sessions
Out rpcs	Number of correct replies in all sessions
Out send fail	Number of replies that failed to be sent in all sessions
Get	Number of Get operations in all sessions
Get config	Number of Get-Config operations in all sessions
Copy config	Number of Copy-Config operations in all sessions
Delete config	Number of Delete-Config operations in all sessions
Close session	Number of Close-Session operations in all sessions
Unsupport	Number of RPC requests unsupported in all sessions
Lock or unlock	Number of Lock and Unlock operations in all sessions

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.8 show netconf yang file

Function

Run the **show netconf yang file** command to display all YANG files supported by a device.

Syntax

show netconf yang file

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example displays all YANG files supported by a device.

```
Hostname> enable
Hostname# show netconf yang file
========================================================
[YANG FILE]:  ietf-inet-types@2010-09-24.yang
[YANG FILE]:  ietf-netconf-acm.yang
[YANG FILE]:  ietf-netconf-monitoring@2010-10-04.yang
[YANG FILE]:  ietf-netconf.yang
[YANG FILE]:  ietf-yang-types@2013-07-15.yang
[YANG FILE]:  ORION-access-control-list@2019-01-31.yang
[YANG FILE]:  ORION-aggregateports@2016-01-01.yang
[YANG FILE]:  ORION-bfd@2019-01-29.yang
[YANG FILE]:  ORION-bridge@2019-02-01.yang
[YANG FILE]:  ORION-cli@2018-12-28.yang
[YANG FILE]:  ORION-device-management@2019-01-28.yang
[YANG FILE]:  ORION-dhcp-relay@2019-01-28.yang
[YANG FILE]:  ORION-dhcp-server@2016-06-06.yang
[YANG FILE]:  ORION-erspan@2019-02-01.yang
[YANG FILE]:  ORION-interfaces@2019-01-26.yang
[YANG FILE]:  ORION-ip@2019-02-12.yang
[YANG FILE]:  ORION-ipv4-unicast-routing@2019-01-26.yang
[YANG FILE]:  ORION-ntp@2019-01-16.yang
```

```
[YANG FILE]:   ORION-ospf@2019-02-14.yang
[YANG FILE]:   ORION-packet-fields@2019-01-31.yang
[YANG FILE]:   ORION-qos@2019-02-01.yang
[YANG FILE]:   ORION-redundancy-management@2019-01-28.yang
[YANG FILE]:   ORION-rns@2018-10-11.yang
[YANG FILE]:   ORION-rpi@2019-02-12.yang
[YANG FILE]:   ORION-snmp@2019-02-01.yang
[YANG FILE]:   ORION-storm-control@2019-01-26.yang
[YANG FILE]:   ORION-syslog@2018-10-11.yang
[YANG FILE]:   ORION-sysmon@2019-02-26.yang
[YANG FILE]:   ORION-system@2019-03-01.yang
[YANG FILE]:   ORION-track@2018-10-11.yang
[YANG FILE]:   ORION-tty-admin@2019-01-14.yang
[YANG FILE]:   ORION-vxlan@2019-01-29.yang
===========================================================
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.9   show netconf yang node-path

Function

Run the **show netconf yang node-path** command to display all node paths supported by a device.

Syntax

show netconf yang node-path [*module-name*]

Parameter Description

module-name: Module name defined in a YANG file.

Command Modes

All modes except the user EXEC mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example displays all node paths supported by a device.

```
Hostname> enable
Hostname# show netconf yang node-path
==========================[ORION-access-control-list]==========================
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/destination-ipv4-network
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/destination-ipv4-network-mask
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/source-ipv4-network
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/source-ipv4-network-mask
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/destination-ipv6-network
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/destination-ipv6-network-mask
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/destination-ipv6-network-prefix-len
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/source-ipv6-network
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/source-ipv6-network-mask
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/source-ipv6-network-prefix-len
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/protocol
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/sport-op
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/sport
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/sport2
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/dport-op
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/dport
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/dport2
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/dscp
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/icmptype
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/icmpcode
```

```
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/precedence
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/tos
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/fragment
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/tcp-flag
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/vid
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/vid-inner
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/destination-mac-address
/ORION-access-control-list:access-lists/acl[acl-type acl-name]/access-list-
entries[rule-name]/destination-mac-address-mask
……
```

The following example displays node paths in the YANG file of the syslog module in a device.

```
Hostname> enable
Hostname# show netconf yang node-path ORION-syslog
==========================[ORION-syslog]==========================
/ORION-syslog:syslog/log-server[ip]/ip
/ORION-syslog:syslog/log-server[ip]/port
/ORION-syslog:syslog/log-server-vrf[ip vrf]/ip
/ORION-syslog:syslog/log-server-vrf[ip vrf]/vrf
/ORION-syslog:syslog/log-server-vrf[ip vrf]/port
/ORION-syslog:syslog/log-server-oob[ip mgmt]/ip
/ORION-syslog:syslog/log-server-oob[ip mgmt]/mgmt
/ORION-syslog:syslog/log-server-oob[ip mgmt]/port
```

Notifications

N/A

Common Errors

N/A

Platform Description

The node paths displayed by running this command are paths of the leaf/leaf-list nodes, and paths of other nodes are not displayed.

Related Commands

N/A

1.10   show netconf yang tree

Function

Run the **show netconf yang tree** command to display all YANG model trees supported by a device.

Syntax

show netconf yang tree [*module-name*]

Parameter Description

module-name: Model tree of a specified YANG file.

Command Modes

All modes except the user EXEC mode

Default Level

1

Usage Guidelines

N/A

Examples

The following example displays all YANG model trees supported by a device.

```
Hostname> enable
Hostname# show netconf yang tree
==========================modules info============================
ietf-inet-types,  ietf-netconf-acm,  ietf-netconf-monitoring,  ietf-netconf,
ietf-yang-types,
ORION-access-control-list,  ORION-aggregateports,  ORION-bfd,  ORION-bridge,
ORION-cli,
ORION-device-management,  ORION-dhcp-relay,  ORION-dhcp-server,  ORION-erspan,
ORION-interfaces,
ORION-ip,  ORION-ipv4-unicast-routing,  ORION-ntp,  ORION-ospf,  ORION-packet-
fields,
ORION-qos,  ORION-redundancy-management,  ORION-rns,  ORION-rpi,  ORION-snmp,
ORION-storm-control,  ORION-syslog,  ORION-sysmon,  ORION-system,  ORION-track,
ORION-tty-admin,  ORION-vxlan,
==================================================================
module: ietf-inet-types
=======================================================
module: ietf-netconf-acm
    +--rw nacm
       +--rw enable-nacm?              boolean <true>
       +--rw read-default?            action-type <permit>
       +--rw write-default?           action-type <deny>
       +--rw exec-default?            action-type <permit>
       +--rw enable-external-groups?  boolean <true>
```

```
   +--ro denied-operations          ietf-yang-types:zero-based-counter32
   +--ro denied-data-writes         ietf-yang-types:zero-based-counter32
   +--ro denied-notifications       ietf-yang-types:zero-based-counter32
   +--rw groups
 | +--rw group* [name]
 |    +--rw name         group-name-type
 |    +--rw user-name*   user-name-type
 +--rw rule-list* [name]
    +--rw name      string
    +--rw group*    union
    +--rw rule* [name]
       +--rw name                 string
       +--rw module-name?         union <*>
       +--rw (rule-type)?
      | +--:(protocol-operation)
......
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A