

### Interface Naming

FCP [Flexible PIC concentrator]	The actual card itself
PIC [Physical Interface Card]	interface card within a Line Card
Port	The port number on the card
ge	1 gig
xe	10 gigs
et	40 gigs
ge-0/1/1	Gig, line card
fxp0	is the name of the mgmt interface

The text fpc 0 refers to the line card on this device, whilst you might remember that PIC is an interface card within this line card.

### CLI Junos OS

Junos is set up in a directory fashion like Linux distributions

Results can be viewed in one of two ways

Set View | Line by line as in Linux distributions

Hierarchy View | Code writing type display

### Understanding Hierarchy [Directory] Structure

Level 1 | version

Level 2 | system

Level 3 | The chassis hierarchy is where you configure physical device settings for your Junos device. This is also where you can configure device settings for your vMX.

Level 4 | interfaces

Level 5 | protocols

Up - will back up one level in the directory

Top - will move to the root directory

### Sub Hierarchies

host name

root-authentication

log in

All sub hierarchies—it will be indented once to the right, when compared to the top-level hierarchies.

### Show Command Level of Information Returned

show interface	descriptions
	terse IP and interface state
	brief
	detail
	extensive
wildcard search	ex-0/1/*

### Extending the Commands with a Pipe

Pipes help narrow search results	count
	find
	save

You can use multiple pipes in one search

show interfaces xe-0/1/*   match "physical   count"	after pipe goes in quotes
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### Keyboard Shortcuts

ctrl-a	beginning of the command line
ctrl-e	end of the command line
ctrl-k	
ctrl-w	deletes the word

### Logs

Create syslog file	set system syslog file CONFIG_CHANGES.txt change-log any
Edit the properties of syslog file	set system syslog file CONFIG_CHANGES.txt archive size 1M files 4 no-world-readable
Read log file	show log CONFIG_CHANGES.txt
Rerad log files in real time	monitor start messages
	monitor stop messages

### Deleting

delete protocols ospf
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### Show Command Basic System Information

show configuration   display set	This displays the full device config
show system uptime	Displays current time, last system boot
show system information	Displays the model, OS family, OS version & hostname



### Show Command Basic System Information (cont)

show route	Displays the routing table
show system users	Displays currently logged in users
show configuration system services   display set	Displays running services
show configuration system login   display set	will display any users built on this device
show configuration interfaces   display set	
show configuration interfaces ge-0/0/2   display set	
show configuration protocols   display set	

### Configuration Mode Levels

employee@router_1 > configure	creates a duplicate [candidate] file <b>multiple people can edit the same candidate record</b>
employee@router_1 > configure private	each editor has their own copy of the candidate record <b>however, users can still save on top of each other</b>
employee@router_1 > configure exclusive	<b>locks the candidate record; no one else can modify</b>

### Configuration Mode

employee@ROUTER\_1 > **configure**

employee@ROUTER\_1#

### In Configuration Mode

commit check	verifies syntax
show   compare	displays the differences between the 2 configs
rollback	returns to the previous configuration
commit confirmed 20	commits config must confirm in 20 minutes or auto rollback
commit confirmed w/ no time	Defaults to 10 minutes
commit and-quit	
commit comment	allows user to add comments to config file

### Configuration Mode (cont)

show	<b>must add the word "run" to any command at this level</b>
commit at "18:00:00"	sets time for commit
commit at " 2023-10-06 14:00:00"	sets commit day and time
clear system commit	

### Example

Change device name | set host-name ROUTER\_1

### LLDP - Link Layer Discovery Protocol

show lldp neighbors	hostname
	port name
	MAC
	POE ability
	Vendor
All devices must have LLDP configured for this to work	

### Troubleshooting

disable port	set interfaces ge-0/0/2 disable
enable	set interfaces ge-0/0/2 enable

### commit and-quit

### Troubleshooting

show configuration system syslog	messages & interactive-commands
	show log messages
	show log interactive-commands
	show log interactive-commands   match "word"
script logging is indicated by the word "netconf"	
Narrow log results	show log interactive-commands   match lab   last 15
	show log interactive-commands   match "word 1" "word 2"
	show log messages   match "down error"
Send a syslog	scp /var/log/CONFIG_CHANGES.txt lab@17-2.25.11.254:/home/lab/desktop

By default, logs are stored in /var/log

