

Ruckus ICX 7750 Breakout Configuration

This document describes how to configure a 40 Gigabit QSFP port for a breakout cable or adapter. Below is the equipment used in this configuration. Some cables are third party and are not officially supported by Ruckus, but tested for functionality.

- Ruckus ICX 7750-48F – 8.0.60a code
- Tested Cables:
 - Brocade 40G-QSFP-4SFP-C-0101 (1x40G to 4x10G DAC)
 - Mellanox MAM1Q00A-QSA (1x40G to 1x10G Optic Module)
 - Fiberstore QSFP-4SFP10G-AOC (1x40G to 4x10G 1M AOC)
 - Fiberstore QSFP-4SFP10G-DAC (1x40G to 4x10G 1M DAC)

For this example, we will be doing a breakout on port e 1/2/6. This is a 40 Gigabit QSFP port on the front of the ICX 7750-48F.



Note: To be able to configure a switch port for breakout, the switch must be in store-and-forward mode. The default is cut-through mode.

To enable store-and-forward mode:

```
config t
store-and-forward
wr mem
exit
reload
```

```
Control-Bridge#
Control-Bridge#config t
Control-Bridge(config)#store-and-forward
Switch mode setting (store-and-forward) requires a reload to take effect!
Control-Bridge(config)#wr mem

Flash Memory Write (8192 bytes per dot)
.
Write startup-config done.
Copy Done.
Control-Bridge(config)#exit
Control-Bridge#reload
Are you sure? (enter 'y' or 'n'): y
Control-Bridge#Unmounting the External USB
Syncing file system
Rebooting...
█
```

To configure breakout on port 1/2/6:

Note: Remove any configuration on the port before issuing

```
config t
breakout ethernet 1/2/6
wr mem
exit
reload
```

```
Control-Bridge#
Control-Bridge#config t
Control-Bridge(config)#breakout ethernet 1/2/6
Reload required. Please write memory and then reload or power cycle.
Control-Bridge(config)#wr mem

Flash Memory Write (8192 bytes per dot)
.
Write startup-config done.
Copy Done.
Control-Bridge(config)#exit
Control-Bridge#reload
Are you sure? (enter 'y' or 'n'): y
Control-Bridge#Unmounting the External USB
Syncing file system
Rebooting...
█
```

Verify your breakout configuration:

show interface brief

1/2/1	Down	None	None	None	None	No	1	0	609c.9fd7.b031
1/2/2	Down	None	None	None	None	No	1	0	609c.9fd7.b035
1/2/3	Down	None	None	None	None	No	1	0	609c.9fd7.b039
1/2/4	Down	None	None	None	None	No	1	0	609c.9fd7.b03d
1/2/5	Down	None	None	None	None	No	1	0	609c.9fd7.b041
1/2/6:1	Down	None	None	None	None	No	1	0	609c.9fd7.b045
1/2/6:2	Down	None	None	None	None	No	1	0	609c.9fd7.b046
1/2/6:3	Down	None	None	None	None	No	1	0	609c.9fd7.b047
1/2/6:4	Down	None	None	None	None	No	1	0	609c.9fd7.b048

Note: The new port numbers end with :1 to :4. This indicated which 10G port is broke out of the 40G port. From this point on, all ports will be referenced like 1/2/6:1 for all configuration purposes.

show breakout

```
Control-Bridge#  
Control-Bridge#show breakout  
  
Unit-Id: 1
```

Port	Module Exist	Module Conf	breakout_conf	breakout_oper
1/2/1	Yes	No	No	No
1/2/2	Yes	No	No	No
1/2/3	Yes	No	No	No
1/2/4	Yes	No	No	No
1/2/5	Yes	No	No	No
1/2/6	Yes	No	Yes	Yes

Your ports are ready to be configured and used.