

# calient

Library scope: global  
Named arguments: supported

## Introduction

A library provides control for Calient Optical Switch

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## Master file

The L1 switch provides a mechanism to remotely connect device interface. Each device interface has been wired to L1 switch already. The connection was described in the master file located specific by *calient-master-path* in the configuration file *renat/config/config.yaml*.  
The master file includes several Calients in each tab. The column meaning and order is trivial.

## Connection file Format

Keywords *Load From File*, *Clear By File* and *Save To File* use the x-connection file. X-connection files are text files and have the following format:

```
# this is the comment
device1,interface1,-,device2,interface2
device1,interface1,>,device2,interface2
```

The separator `-` means a bidirection connection and `>` means a unidirection connection. For a unidirection connection, `device1/interface1` TX will be connected to `device2/interface2` RX.  
**Note:** The separator character must be surrounded by spaces or commas.  
The connection file also support jinja2 template format. After the template is evaluated, comment could be used by `comment char`  
There is no need to specify which L1 switch for the x-connection. The system will automatically find the appropriate switch.

## Shortcuts

Add · Delete · Get Connection Info

## Keywords

| Keyword             | Arguments  | Documentation   |
|---------------------|--|---|
| Add                 | <i>self, dev1, intf1, dev2, intf2, direction=bi, force=False</i> | <p>Adds x-connection between <code>dev1:intf1</code> and <code>dev2:intf2</code></p> <p><code>direction</code> is <code>bi</code> for bi-direction or <code>uni</code> for uni-direction. If <code>direction</code> is <code>uni</code>, the tx of <code>dev 1:port 1</code> will be connected to <code>dev 2:port 2</code>.</p> <p>With <code>force</code> mode, existed connection that use those ports will be deleted. Without <code>force</code> mode, an existed connection will make the keyword fails</p> <p>Examples:</p> <pre>OpticalSwitch.<i>Add</i> mx2008-31-33 xe-3/0/0 mx2008-31-33 xe-3/0/1 bi \${TRUE}</pre> <p><b>Note:</b> when <code>force</code> is <code>False</code> but the current ports is owned by the same connection endpoints, keyword will succeed.</p> <p>For a bidirection connection, 2 single uni-direction connection will be made instead of 1 bi-direction connection. This will make the link could be simulated tx/rx failure later.</p> |
| Delete              | <i>self, dev1, intf1, dev2, intf2, direction=bi, force=False</i> | <p>Deletes the connection between <code>dev1:intf1</code> - <code>dev2:intf2</code></p> <p>Examples:</p> <pre>OpticalSwitch.<i>Delete</i> mx2008-31-33 xe-3/0/1 mx2008-31-33 xe-3/0/1 uni</pre>   |
| Get Connection Info | <i>self, dev, intf</i>   | <p>Returns information of the optic switch port that connected to <code>dev:intf</code>. The information is in jason format.</p> <p>Examples:</p> <pre>OpticalSwitch.<i>Get Connection Info</i> mx2008-31-33 xe-3/0/1</pre> <p>return information looks like below:</p> <pre>result = {u'outoc': u'NOHW', u'outopwdh': u'-20.0', u'inos': u'OOS', u'outalias': u'', u'inowner': u'TRANSIT', u'outopwct': u'-23.0', u'inpower': u'-3.4', u'inas': u'IS', u'outpower': u'-4.8', u'outas': u'OOS-NP', u'inopt': u'-17.0', u'inoph': u'13.0', u'incircuit': u'3.3.1&gt;3.3.2', u'inalias': u''}</pre>   |

|  |  |
|--|--|
|  | <code>u'inoc': u'NOHW', u'inopte': u'-20.0', u'outos': u'OOS', u'port': u'3.3.1',<br/>u'outowner': u'NONE', u'outcircuit': u''}</code> |
|--|--|

Altogether 3 keywords.

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