

# Troubleshooting the Python API


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## Receiving Python API Errors

Take these actions if any of the following Python API errors appear:

| Symptom | Solution | Example |
|---|---|---|
| The Python cli API throws a NameError. | Import the cli module into the global namespace. | `>>> cli('show clock')`<br>`Traceback (most recent call last):`<br>`  File "<stdin>", line 1, in <module>`<br>`NameError: name 'cli' is not defined`<br><br>`>>> from cli import *`<br>`>>> cli('show clock')`<br>`'20:23:33.967 UTC Fri Nov 01 2013\n'` |
| The Python clid API throws a structured_output_not_supported_error. | Use the cli or clip API. The clid API works only with commands that support structured data output. | `>>> clid('show clock')`<br>`Traceback (most recent call last):`<br>`  File "<stdin>", line 1, in <module>`<br>`  File "/isan/python/scripts/cli.py", line 45,`<br>` in clid`<br>`  raise`<br>`structured_output_not_supported_error(cmd)`<br>`errors.structured_output_not_supported_error:`<br>` 'show clock'` |

| Symptom | Solution | Example |
|---|---|---|
| The cli API and cisco objects throw a Permission denied error. | Make sure your login ID has sufficient permissions to access the command or resource. If necessary, ask your network administrator for additional permissions. | `>>> from cli import *`<br>`>>> cli('clear counters')`<br>`Traceback (most recent call last):`<br>`  File "<stdin>", line 1, in <module>`<br>`  File "/isan/python/scripts/cli.py", line 20, in cli`<br>`  raise cmd_exec_error(msg)`<br>`errors.cmd_exec_error: '% Permission denied for the role\n\nCmd exec error.\n'`<br>`>>> from cisco.interface import *`<br>`>>> i=Interface('Ethernet3/2')`<br>`Traceback (most recent call last):`<br>`  File "<stdin>", line 1, in <module>`<br>`  File "/isan/python/scripts/cisco/interface.py", line 75, in __new__`<br>`  cls._Interfaces[name].config(True)`<br>`  File "/isan/python/scripts/cisco/interface.py", line 91, in config`<br>`  s, o = nxcli('show runn interface %s' % self.name)`<br>`  File "/isan/python/scripts/cisco/nxcli.py", line 46, in nxcli`<br>`  raise SyntaxError, 'Error status %d\n%s' % (status, output)`<br>`SyntaxError: Error status 30`<br>`% Permission denied for the role`<br><br>`Cmd exec error.`<br><br>`>>> import os`<br>`>>> os.system('whoami')`<br>`test` |

| Symptom | Solution | Example |
|---|---|---|
| The urllib2 or socket connection is not processed. | Make sure you are using the correct virtual routing context. If not, switch to the correct one. | `>>> import urllib2`<br>`>>>`<br>`u=urllib2('http://172.23.40.211:8000/welcome.html')`<br>`Traceback (most recent call last):`<br>`  File "<stdin>", line 1, in <module>`<br>`TypeError: 'module' object is not callable`<br>`>>>`<br>`u=urllib2.urlopen('http://172.23.40.211:8000/welcome.html')`<br>`Traceback (most recent call last):`<br>`  File "<stdin>", line 1, in <module>`<br>`  File "/isan/python/python2.7/urllib2.py", line 127, in urlopen`<br>`  return _opener.open(url, data, timeout)`<br>`  File "/isan/python/python2.7/urllib2.py", line 404, in open`<br>`  response = self._open(req, data)`<br>`  File "/isan/python/python2.7/urllib2.py", line 422, in _open`<br>`  '_open', req)`<br>`  File "/isan/python/python2.7/urllib2.py", line 382, in _call_chain`<br>`  result = func(*args)`<br>`  File "/isan/python/python2.7/urllib2.py", line 1214, in http_open`<br>`  return self.do_open(httplib.HTTPConnection, req)`<br>`  File "/isan/python/python2.7/urllib2.py", line 1184, in do_open`<br>`  raise URLError(err)`<br>`urllib2.URLError: <urlopen error [Errno 113] No route to host>`<br>`>>> from cisco.vrf import *`<br>`>>> VRF.get_vrf_name_by_id(get_global_vrf())`<br>`'default'` |