



Cisco XML and Encapsulated CLI Operations

The extensible markup language (XML) interface for the router provides support for XML encapsulated command-line interface (CLI) commands and responses.

This chapter provides information on XML CLI command tags.

XML CLI Command Tags

A client application can request a CLI command by encoding the text for the command within a pair of <CLI> start and </CLI> end tags, and <Configuration> tags. The router responds with the uninterpreted CLI text result.



Note

XML encapsulated CLI commands use the same target configuration as the corresponding XML operations <Get>, <Set>, and <Delete>.

When used for CLI operations, the <Configuration> tag supports the optional Operation attribute, which can take one of the values listed in [Table 6-1](#).

Table 6-1 Operational Attribute Values

Operational Attribute Value	Operational Attribute Value Description
Apply	Specifies that the commands should be executed or applied (default).
Help	Gets help on the last command in the list of commands sent in the request. There should not be any empty lines after the last command (because the last command is considered to be the one on the last line)
CommandCompletion	Completes the last keyword of the last command. Apart from not allowing empty lines at the end of the list of commands sent in the request, when this option is used there should not be any white spaces after the partial keyword to be completed.

The following example uses the <CLI> operation tag:

Sample XML Client Request for CLI Command Using CLI Tags

```
<?xml version="1.0" encoding="UTF-8"?>
<Request MajorVersion="1" MinorVersion="0">
  <CLI>
    <Configuration>
      router bgp 3
      default-metric 10
      timers bgp 80 160
      exit
      show config
    </Configuration>
  </CLI>
</Request>
```

Sample XML Response from the Router

```
<?xml version="1.0" encoding="UTF-8"?>
<Response MajorVersion="1" MinorVersion="0">
  <CLI>
    <Configuration>
      Building configuration...
      router bgp 3
      default-metric 10
      timers bgp 80 160
      end
    </Configuration>
  </CLI>
</Response>
```

CLI Command Limitations

The initial CLI command support through XML is limited to CLI configuration and subsequent responses wrapped in <CLI> tags.

The following commands and conditions are not supported:

- <Operational> namespace commands.
- <Action> namespace commands.
- Iterators for responses to <CLI> commands issued through XML. For example, iterators are not supported for the output of the **show run** and **show configuration** commands.
- Sending a request in <CLI> format and getting back an XML encoded response.
- Sending an XML encoded request and getting back a response in <CLI> format.
- “Long running” commands, for example, “ping” and “top.”
- Iterators in responses to CLI commands such as the **show run** and **show configuration** commands.
- Only one XML <CLI> request can be issued at a time across all client sessions on the router.