

## CLI Mode

---

This chapter describes the Command Line Interface (CLI) mode provided by Cisco E-DI XML PI.

Cisco E-DI allows the user to send CLI commands as text enclosed in XML tags. The response to the CLI commands will be the output from the network element in text format enclosed in the appropriate XML tags.

Cisco E-DI supports two ways of sending CLI commands:

- As content of the element **config-format-text-cmd**. This is **cli** format.
- As content of the element **config-format-text-block**. This is **cli-block** format.

This chapter includes the following details:

- [Sending Edit Configuration Commands in cli Format](#)
- [Sending Edit Configuration Commands in cli-block Mode](#)
- [Sending EXEC Commands in cli-block Mode](#)
- [Getting a Configuration Using Filters in cli Format](#)

## Sending Edit Configuration Commands in cli Format

The following example details how to send edit configuration commands in cli format

Request:

```
<rpc message-id="101" xmlns="urn:iETF:params:xml:ns:netconf:base:1.0"
xmlns:cpi="http://www.cisco.com/cpi_10/schema">
  <edit-config>
    <target>
      <candidate/>
    </target>
    <default-operation>merge</default-operation>
    <test-option>test-then-set</test-option>
    <error-option>ignore-error</error-option>
    <config>
      <cpi:cli-config-data>
        <cpi:cmd>no username testcliedit</cpi:cmd>
      </cpi:cli-config-data>
    </config>
  </edit-config>
</rpc>
```

Response:

```
<rpc-reply message-id="101" xmlns:cpi="http://www.cisco.com/cpi_10/schema"
xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <ok/>
</rpc-reply>
```

## Sending Edit Configuration Commands in cli-block Mode

The following example details sending edit configuration commands in cli-block format.

Request:

```
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:cpi="http://www.cisco.com/cpi_10/schema">
  <edit-config>
    <target>
      <candidate/>
    </target>
    <default-operation>merge</default-operation>
    <test-option>test-then-set</test-option>
    <error-option>ignore-error</error-option>
    <config>
      <cpi:cli-config-data-block>username testcliedit1          username
testcliedit2</cpi:cli-config-data-block>
    </config>
  </edit-config>
</rpc>
```

Response:

```
<rpc-reply message-id="101" xmlns:cpi="http://www.cisco.com/cpi_10/schema"
xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <ok/>
</rpc-reply>
```

## Sending EXEC Commands in cli-block Mode

The following example details sending EXEC commands in cli-block mode.



**Note**

---

The validate-syntax attribute is not supported.

---

Request:

```
<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:cpi="http://www.cisco.com/cpi_10/schema">
  <get>
    <filter>
      <cpi:config-format-text-block>
        <text-filter-spec>| include interface</text-filter-spec>
      </cpi:config-format-text-block>
      <cpi:oper-data-format-text-block>
        <show>interfaces</show>
        <show>arp</show>
      </cpi:oper-data-format-text-block>
    </filter>
```

```

    </get>
  </rpc>

```

**Response:**

```

<rpc-reply message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:cpi="http://www.cisco.com/cpi_10/schema">
  <data>
    <cpi:cli-config-data-block xmlns:cpi="http://www.cisco.com/cpi_10/schema">
      interface Loopback0
      interface Loopback5
      interface Virtual-TokenRing1
      interface Virtual-TokenRing1.1
    </cpi:cli-config-data-block>
    <cli-oper-data-block>
      <item>
        <show>interfaces</show>
        <response>
          Dialer1 is up (spoofing), line protocol is up (spoofing)
          MTU 1500 bytes, BW 1000 Kbit, DLY 100000 usec,
          reliability 255/255, txload 1/255, rxload 1/255
          Output queue: 0/0 (size/max)
          Virtual-TokenRing1.1 is up, line protocol is up
          Hardware is Virtual-TokenRing, address is 4000.0000.000c (bia
          4000.0000.000c)
          MTU 8136 bytes, BW 16000 Kbit, DLY 5000 usec,
          reliability 255/255, txload 1/255, rxload 1/255
          Encapsulation SNAP
          ARP type: SNAP, ARP Timeout 04:00:00
          Last clearing of "show interface" counters never
        </response>
      </item>
      <item>
        <show>arp</show>
        <response>
          

| Protocol | Address      | Age (min) | Hardware Addr  | Type | Interface     |
|----------|--------------|-----------|----------------|------|---------------|
| Internet | 10.76.92.34  | 119       | 0009.e831.d8ff | ARPA | FastEthernet0 |
| Internet | 10.76.92.35  | 38        | 0009.e831.d8ff | ARPA | FastEthernet0 |
| Internet | 172.25.86.5  | 1         | 00c0.9f61.7b61 | ARPA | FastEthernet0 |
| Internet | 172.25.86.15 | 118       | 0009.434d.0500 | ARPA | FastEthernet0 |


        </response>
      </item>
    </cli-oper-data-block>
  </data>
</rpc-reply>

```

## Getting a Configuration Using Filters in cli Format

The following example details getting a configuration using filters in cli format

**Request:**

```

<rpc message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:cpi="http://www.cisco.com/cpi_10/schema">
  <get>
    <filter>
      <cpi:config-format-text-cmd>

```

```

        <text-filter-spec>| include interface</text-filter-spec>
    </cpi:config-format-text-cmd>
    <cpi:oper-data-format-text-block>
        <show>interfaces</show>
        <show>arp</show>
    </cpi:oper-data-format-text-block>
</filter>
</get>
</rpc>

```

**Response:**

```

<rpc-reply message-id="101" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"
xmlns:cpi="http://www.cisco.com/cpi_10/schema">
  <data>
    <cpi:cli-config-data xmlns:cpi="http://www.cisco.com/cpi_10/schema">
      <cpi:cmd>interface Loopback0</cpi:cmd>
      <cpi:cmd>interface Loopback5</cpi:cmd>
      <cpi:cmd>interface Virtual-TokenRing1</cpi:cmd>
      <cpi:cmd>interface Virtual-TokenRing1.1</cpi:cmd>
    </cpi:cli-config-data>
    <cli-oper-data-block>
      <item>
        <show>interfaces</show>
        <response>
          Dialer1 is up (spoofing), line protocol is up (spoofing)
          Hardware is Unknown
          MTU 1500 bytes, BW 56 Kbit, DLY 20000 usec,
          reliability 255/255, txload 1/255, rxload 1/255
          Encapsulation HDLC, loopback not set
          Last clearing of "show interface" counters never
        </response>
      </item>
      <item>
        <show>arp</show>
        <response>


| Protocol | Address      | Age (min) | Hardware Addr  | Type | Interface     |
|----------|--------------|-----------|----------------|------|---------------|
| Internet | 10.76.92.34  | 134       | 0009.e831.d8ff | ARPA | FastEthernet0 |
| Internet | 172.25.86.1  | 0         | 0009.e831.d8ff | ARPA | FastEthernet0 |
| Internet | 172.25.86.5  | 1         | 00c0.9f61.7b61 | ARPA | FastEthernet0 |
| Internet | 172.25.86.15 | 133       | 0009.434d.0500 | ARPA | FastEthernet0 |


        </response>
      </item>
    </cli-oper-data-block>
  </data>
</rpc-reply>

```