



IP SLAs—Analyzing IP Service Levels Using the HTTP Operation

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This module describes how to use the Cisco IOS IP Service Level Agreements (SLAs) HTTP operation to monitor the response time between a Cisco device and an HTTP server to retrieve a web page. The IP SLAs HTTP operation supports both the normal GET requests and customer RAW requests. IP SLAs is a portfolio of technology embedded in most devices that run Cisco IOS software, which allows Cisco customers to analyze IP service levels for IP applications and services, to increase productivity, to lower operational costs, and to reduce the frequency of network outages. IP SLAs uses active traffic monitoring—the generation of traffic in a continuous, reliable, and predictable manner—for measuring network performance. This module also demonstrates how the results of the HTTP operation can be displayed and analyzed to determine how an HTTP server is performing.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the [“Feature Information for the IP SLAs HTTP Operation”](#) section on page 18.

Use Cisco Feature Navigator to find information about platform support and Cisco IOS and Catalyst OS software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

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Prerequisites for the IP SLAs HTTP Operation

Before configuring the IP SLAs HTTP operation you should be familiar with the “[Cisco IOS IP SLAs Overview](#)” chapter of the *Cisco IOS IP SLAs Configuration Guide*, Release 12.4.

Information About the IP SLAs HTTP Operation

To perform the tasks required to monitor the performance of an HTTP server using IP SLA, you should understand the following concept:

- [HTTP Operation, page 2](#)

HTTP Operation

The HTTP operation measures the round-trip time (RTT) between a Cisco device and an HTTP server to retrieve a web page. The HTTP server response time measurements consist of three types:

- DNS lookup—RTT taken to perform domain name lookup.
- TCP Connect—RTT taken to perform a TCP connection to the HTTP server.
- HTTP transaction time—RTT taken to send a request and get a response from the HTTP server. The operation retrieves only the home HTML page.



Note

IP SLAs has individual Domain Name Server (DNS) and TCP Connect operations. For more details, see the “[Where to Go Next](#)” section on page 16.

The DNS operation is performed first and the DNS RTT is measured. Once the domain name is found, a TCP Connect operation to the appropriate HTTP server is performed and the RTT for this operation is measured. The final operation is an HTTP request and the RTT to retrieve the home HTML page from the HTTP server is measured. One other measurement is made and called the time to first byte which measures the time from the start of the TCP Connect operation to the first HTML byte retrieved by the HTTP operation. The total HTTP RTT is a sum of the DNS RTT, the TCP Connect RTT, and the HTTP RTT.

For GET requests, IP SLAs will format the request based on the specified URL. For RAW requests, IP SLAs requires the entire content of the HTTP request. When a RAW request is configured, the raw commands are specified in HTTP RAW configuration mode. A RAW request is flexible and allows you to control fields such as authentication. An HTTP request can be made through a proxy server.

The results of an HTTP operation can be useful in monitoring your web server performance levels by determining the RTT taken to retrieve a web page.

How to Configure the IP SLAs HTTP Operation

This section contains the following procedures:

- [Configuring and Scheduling an HTTP GET Operation on the Source Device, page 3](#)
- [Configuring and Scheduling an HTTP RAW Operation on the Source Device, page 10](#)

Configuring and Scheduling an HTTP GET Operation on the Source Device

To measure the response time between a Cisco device and an HTTP server to retrieve a web page, use the IP SLAs HTTP operation. A GET request requires only a specified URL. This operation does not require the IP SLAs Responder to be enabled.

Perform one of the following tasks in this section, depending on whether you want to configure a basic HTTP GET operation or configure an HTTP GET operation with optional parameters:

- [Configuring and Scheduling a Basic HTTP GET Operation on the Source Device, page 3](#)
- [Configuring and Scheduling an HTTP GET Operation with Optional Parameters on the Source Device, page 5](#)

Configuring and Scheduling a Basic HTTP GET Operation on the Source Device

Perform this task to enable an HTTP GET operation without any optional parameters.



Note

For information on scheduling a group of operations, see the “[IP SLAs—Multiple Operation Scheduling](#)” chapter of the *Cisco IOS IP SLAs Configuration Guide*, Release 12.4.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **ip sla monitor** *operation-number*
4. **type http operation get url** *url* [**name-server** *ip-address*] [**version** *version-number*]
[**source-ipaddr** {*ip-address* | *ip-hostname*}] [**source-port** *port-number*] [**cache** {**enable** | **disable**}]
[**proxy** *proxy-url*]
5. **frequency** *seconds*
6. **exit**
7. **ip sla monitor schedule** *operation-number* [**life** {**forever** | *seconds*}] [**start-time** {*hh:mm[:ss]* [*month* *day* | *day month*] | **pending** | **now** | **after** *hh:mm:ss*}] [**ageout** *seconds*] [**recurring**]
8. **exit**
9. **show ip sla monitor configuration** [*operation-number*]

DETAILED STEPS

	Command or Action	Purpose
Step 1	<p>enable</p> <p>Example: Router> enable</p>	<p>Enables privileged EXEC mode.</p> <ul style="list-style-type: none"> Enter your password if prompted.
Step 2	<p>configure terminal</p> <p>Example: Router# configure terminal</p>	<p>Enters global configuration mode.</p>
Step 3	<p>ip sla monitor operation-number</p> <p>Example: Router(config)# ip sla monitor 10</p>	<p>Begins configuration for an IP SLAs operation and enters IP SLA monitor configuration mode.</p>
Step 4	<p>type http operation get url url [name-server ip-address] [version version-number] [source-ipaddr {ip-address ip-hostname}] [source-port port-number] [cache {enable disable}] [proxy proxy-url]</p> <p>Example: Router(config-sla-monitor)# type http operation get url http://198.133.219.25</p>	<p>Defines an HTTP operation and enters IP SLA monitor configuration mode.</p> <ul style="list-style-type: none"> Use the operation and get keywords to specify an HTTP GET operation. Use the url keyword and <i>url</i> argument to specify the URL of the destination HTTP server. <p>Note Only the syntax applicable to the HTTP GET operation is used in this example. For more details, see the <i>Cisco IOS IP SLAs Command Reference</i>, 12.3T.</p>
Step 5	<p>frequency seconds</p> <p>Example: Router(config-sla-monitor-http)# frequency 90</p>	<p>(Optional) Sets the rate at which a specified IP SLAs HTTP operation repeats. The default and minimum frequency value for an IP SLAs HTTP operation is 60 seconds.</p>
Step 6	<p>exit</p> <p>Example: Router(config-sla-monitor-http)# exit</p>	<p>Exits HTTP configuration submenu and returns to global configuration mode.</p>
Step 7	<p>ip sla monitor schedule operation-number [life {forever seconds}] [start-time {hh:mm[:ss] [month day day month] pending now after hh:mm:ss] [ageout seconds] [recurring]</p> <p>Example: Router(config)# ip sla monitor schedule 5 start-time now life forever</p>	<p>Configures the scheduling parameters for an individual IP SLAs operation.</p>

	Command or Action	Purpose
Step 8	exit Example: Router(config)# exit	(Optional) Exits global configuration mode and returns to privileged EXEC mode.
Step 9	show ip sla monitor configuration [operation-number] Example: Router# show ip sla monitor configuration 10	(Optional) Displays configuration values including all defaults for all IP SLAs operations or a specified operation.

Examples

The following example shows the configuration of an IP SLAs operation type of HTTP GET that will start immediately and run indefinitely. This operation will retrieve the home page from the www.cisco.com website.

```
ip sla monitor 8
 type http operation get url http://198.133.219.25
 frequency 90
!
ip sla monitor schedule 8 life forever start-time now
```

Troubleshooting Tips

Use the **debug ip sla monitor trace** and **debug ip sla monitor error** commands to help troubleshoot issues with an IP SLAs operation.

What to Do Next

To view and interpret the results of an IP SLAs operation use the **show ip sla monitor statistics** command. Checking the output for fields that correspond to criteria in your service level agreement will help you determine whether the service metrics are acceptable.

Configuring and Scheduling an HTTP GET Operation with Optional Parameters on the Source Device

Perform this task to enable an HTTP GET operation on the source device and configure some optional IP SLAs parameters. The source device is the location at which the measurement statistics are stored.



Note

For information on scheduling a group of operations, see the “[IP SLAs—Multiple Operation Scheduling](#)” chapter of the *Cisco IOS IP SLAs Configuration Guide*, Release 12.4.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **ip sla monitor** operation-number
4. **type http operation get url** url [name-server ip-address] [version version-number] [source-ipaddr {ip-address | ip-hostname}] [source-port port-number] [cache {enable | disable}] [proxy proxy-url]

5. **buckets-of-history-kept** *size*
6. **distributions-of-statistics-kept** *size*
7. **enhanced-history** [**interval** *seconds*] [**buckets** *number-of-buckets*]
8. **filter-for-history** { **none** | **all** | **overThreshold** | **failures** }
9. **frequency** *seconds*
10. **hours-of-statistics-kept** *hours*
11. **http-raw-request**
12. **lives-of-history-kept** *lives*
13. **owner** *owner-id*
14. **statistics-distribution-interval** *milliseconds*
15. **tag** *text*
16. **threshold** *milliseconds*
17. **timeout** *milliseconds*
18. **tos** *number*
19. **exit**
20. **ip sla monitor schedule** *operation-number* [**life** { **forever** | *seconds* }] [**start-time** { *hh:mm[:ss]* [*month day* | *day month*] } | **pending** | **now** | **after** *hh:mm:ss*] [**ageout** *seconds*] [**recurring**]
21. **exit**
22. **show ip sla monitor configuration** [*operation-number*]

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none"> • Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	ip sla monitor <i>operation-number</i> Example: Router(config)# ip sla monitor 10	Begins configuration for an IP SLAs operation and enters IP SLA monitor configuration mode.

Command or Action	Purpose
<p>Step 4</p> <pre>type http operation get url url [name-server ip-address] [version version-number] [source-ipaddr {ip-address ip-hostname}] [source-port port-number] [cache {enable disable}] [proxy proxy-url]</pre> <p>Example: Router(config-sla-monitor)# type http operation get url http://198.133.219.25</p>	<p>Defines an HTTP operation and enters IP SLA Monitor configuration mode.</p> <ul style="list-style-type: none"> • Use the operation and get keywords to specify an HTTP GET operation. • Use the url keyword and <i>url</i> argument to specify the URL of the destination HTTP server. • Use the name-server keyword and <i>ip-address</i> argument to specify the IP address of the destination DNS. • Use the version keyword and <i>version-number</i> argument to specify the version number. • Use the optional source-ipaddr keyword and associated options to specify an IP address or designated IP name as the source of the HTTP operation. This is useful when IP SLAs packets are to be routed within an IPsec or GRE tunnel. • Use the optional source-port keyword and <i>port-number</i> argument to specify a source port number. • Use the optional cache keyword to specify that cached HTTP pages can be downloaded. Use the disable keyword when you want to disable the download of cached HTTP pages. This is enabled by default. • Use the optional proxy keyword and <i>proxy-url</i> argument to specify proxy information. <p>Note Only the syntax applicable to the HTTP GET operation is used in this example. For more details, see the <i>Cisco IOS IP SLAs Command Reference</i>.</p>
<p>Step 5</p> <pre>buckets-of-history-kept size</pre> <p>Example: Router(config-sla-monitor-http)# buckets-of-history-kept 25</p>	<p>(Optional) Sets the number of history buckets that are kept during the lifetime of an IP SLAs operation.</p>
<p>Step 6</p> <pre>distributions-of-statistics-kept size</pre> <p>Example: Router(config-sla-monitor-http)# distributions-of-statistics-kept 5</p>	<p>(Optional) Sets the number of statistics distributions kept per hop during an IP SLAs operation.</p>
<p>Step 7</p> <pre>enhanced-history [interval seconds] [buckets number-of-buckets]</pre> <p>Example: Router(config-sla-monitor-http)# enhanced-history interval 900 buckets 100</p>	<p>(Optional) Enables enhanced history gathering for an IP SLAs operation.</p>

How to Configure the IP SLAs HTTP Operation

	Command or Action	Purpose
Step 8	filter-for-history {none all overThreshold failures} Example: Router(config-sla-monitor-http)# filter-for-history failures	(Optional) Defines the type of information kept in the history table for an IP SLAs operation.
Step 9	frequency seconds Example: Router(config-sla-monitor-http)# frequency 90	(Optional) Sets the rate at which a specified IP SLAs HTTP operation repeats. The default and minimum frequency value for an IP SLAs HTTP operation is 60 seconds.
Step 10	hours-of-statistics-kept hours Example: Router(config-sla-monitor-http)# hours-of-statistics-kept 4	(Optional) Sets the number of hours for which statistics are maintained for an IP SLAs operation.
Step 11	http-raw-request Example: Router(config-sla-monitor-http)# http-raw-request	(Optional) Explicitly specifies the options for a GET request for an IP SLAs HTTP operation.
Step 12	lives-of-history-kept lives Example: Router(config-sla-monitor-http)# lives-of-history-kept 5	(Optional) Sets the number of lives maintained in the history table for an IP SLAs operation.
Step 13	owner owner-id Example: Router(config-sla-monitor-http)# owner admin	(Optional) Configures the Simple Network Management Protocol (SNMP) owner of an IP SLAs operation.
Step 14	statistics-distribution-interval milliseconds Example: Router(config-sla-monitor-http)# statistics-distribution-interval 10	(Optional) Sets the time interval for each statistics distribution kept for an IP SLAs operation.
Step 15	tag text Example: Router(config-sla-monitor-http)# tag TelnetPollServer1	(Optional) Creates a user-specified identifier for an IP SLAs operation.
Step 16	threshold milliseconds Example: Router(config-sla-monitor-http)# threshold 10000	(Optional) Sets the upper threshold value for calculating network monitoring statistics created by an IP SLAs operation.

	Command or Action	Purpose
Step 17	<code>timeout milliseconds</code> Example: Router(config-sla-monitor-http)# timeout 10000	(Optional) Sets the amount of time an IP SLAs operation waits for a response from its request packet.
Step 18	<code>tos number</code> Example: Router(config-sla-monitor-http)# tos 160	(Optional) Defines a type of service (ToS) byte in the IP header of an IP SLAs operation.
Step 19	<code>exit</code> Example: Router(config-sla-monitor-http)# exit	Exits HTTP configuration submenu and returns to global configuration mode.
Step 20	<code>ip sla monitor schedule operation-number [life {forever seconds}] [start-time {hh:mm[:ss] [month day day month] pending now after hh:mm:ss} [ageout seconds] [recurring]</code> Example: Router(config)# ip sla monitor schedule 5 start-time now life forever	Configures the scheduling parameters for an individual IP SLAs operation.
Step 21	<code>exit</code> Example: Router(config)# exit	(Optional) Exits global configuration mode and returns to privileged EXEC mode.
Step 22	<code>show ip sla monitor configuration [operation-number]</code> Example: Router# show ip sla monitor configuration 10	(Optional) Displays configuration values including all defaults for all IP SLAs operations or a specified operation.

Examples

The following sample output shows the configuration of all the IP SLAs parameters (including defaults) for the HTTP GET operation number 8.

```
Router# show ip sla monitor configuration 8

Complete Configuration Table (includes defaults)
Entry Number: 8
Owner:
Tag: FLL-LA
Type of Operation to Perform: http
Reaction and History Threshold (milliseconds): 5000
Operation Frequency (seconds): 90
Operation Timeout (milliseconds): 5000
Verify Data: FALSE
Status of Entry (SNMP RowStatus): active
Protocol Type: httpAppl
Target Address:
Source Address: 0.0.0.0
Target Port: 0
Source Port: 0
```

```

Request Size (ARR data portion): 1
Response Size (ARR data portion): 1
Control Packets: enabled
Loose Source Routing: disabled
LSR Path:
Type of Service Parameters: 0x0
HTTP Operation: get
HTTP Server Version: 1.0
URL: http://198.133.219.25
Proxy:
Raw String(s):

Cache Control: enabled
Life (seconds): infinite - runs forever
Next Scheduled Start Time: Start Time already passed
Entry Ageout (seconds): never
Connection Loss Reaction Enabled: FALSE
Timeout Reaction Enabled: FALSE
Threshold Reaction Type: never
Threshold Falling (milliseconds): 3000
Threshold Count: 5
Threshold Count2: 5
Reaction Type: none
Verify Error Reaction Enabled: FALSE
Number of Statistic Hours kept: 2
Number of Statistic Paths kept: 1
Number of Statistic Hops kept: 1
Number of Statistic Distribution Buckets kept: 1
Statistic Distribution Interval (milliseconds): 20
Number of History Lives kept: 0
Number of History Buckets kept: 15
Number of History Samples kept: 1
History Filter Type: none

```

Troubleshooting Tips

Use the **debug ip sla monitor trace** and **debug ip sla monitor error** commands to help troubleshoot issues with an IP SLAs operation.

What to Do Next

To view and interpret the results of an IP SLAs operation use the **show ip sla monitor statistics** command. Checking the output for fields that correspond to criteria in your service level agreement will help you determine whether the service metrics are acceptable.

Configuring and Scheduling an HTTP RAW Operation on the Source Device

To measure the response time between a Cisco device and an HTTP server to retrieve a web page, use the IP SLAs HTTP operation. To perform a RAW request, IP SLAs requires you to specify the entire contents of the HTTP request. After entering HTTP RAW configuration mode, you can specify HTTP 1.0 commands to complete the HTTP RAW request. This operation does not require the IP SLAs Responder to be enabled.

Perform this task to enable an HTTP RAW operation on the source device and configure some optional IP SLAs parameters. The source device is the location at which the measurement statistics are stored.

**Note**

For information on scheduling a group of operations, see the “[IP SLAs—Multiple Operation Scheduling](#)” chapter of the *Cisco IOS IP SLAs Configuration Guide*, Release 12.4.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **ip sla monitor** *operation-number*
4. **type http operation raw url** *url* [**name-server** *ip-address*] [**version** *version-number*] [**source-ipaddr** {*ip-address* | *ip-hostname*}] [**source-port** *port-number*] [**cache** {**enable** | **disable**}] [**proxy** *proxy-url*]
5. **http-raw-request**
6. Enter the required HTTP 1.0 command syntax.
7. **exit**
8. **ip sla monitor schedule** *operation-number* [**life** {**forever** | *seconds*}] [**start-time** {*hh:mm[:ss]* [*month* *day* | *day month*]} | **pending** | **now** | **after** *hh:mm:ss*] [**ageout** *seconds*] [**recurring**]
9. **exit**
10. **show ip sla monitor configuration** [*operation-number*]

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. <ul style="list-style-type: none">• Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	ip sla monitor <i>operation-number</i> Example: Router(config)# ip sla monitor 10	Begins configuration for an IP SLAs operation and enters IP SLA monitor configuration mode.

Command or Action	Purpose
<p>Step 4</p> <pre>type http operation raw url url [name-server ip-address] [version version-number] [source-ipaddr {ip-address ip-hostname}] [source-port port-number] [cache {enable disable}] [proxy proxy-url]</pre> <p>Example: Router(config-sla-monitor)# type http operation raw url http://198.133.219.25</p>	<p>Defines an HTTP operation.</p> <ul style="list-style-type: none"> Use the operation and raw keywords to specify an HTTP RAW operation. Use the url keyword and <i>url</i> argument to specify the URL of the destination HTTP server. Use the name-server keyword and <i>ip-address</i> argument to specify the IP address of the destination DNS. Use the version keyword and <i>version-number</i> argument to specify the version number. Use the optional source-ipaddr keyword and associated options to specify an IP address or designated IP name as the source of the HTTP operation. This is useful when IP SLAs packets are to be routed within an IPsec or GRE tunnel. Use the optional source-port keyword and <i>port-number</i> argument to specify a source port number. Use the optional cache keyword to specify that cached HTTP pages can be downloaded. Use the disable keyword when you want to disable the download of cached HTTP pages. This is enabled by default. Use the optional proxy keyword and <i>proxy-url</i> argument to specify proxy information. <p>Note Only the syntax applicable to the HTTP RAW operation is used in this example. For more details, see the <i>Cisco IOS IP SLAs Command Reference</i>.</p>
<p>Step 5</p> <pre>http-raw-request</pre> <p>Example: Router(config-sla-monitor)# http-raw-request</p>	<p>Enters HTTP RAW configuration mode.</p>
<p>Step 6</p> <p>Enter the required HTTP 1.0 command syntax.</p> <p>Example: Router(config-sla-monitor-http)# GET /en/US/hmpgs/index.html HTTP/1.0\r\n\r\n</p>	<p>Specifies all the required HTTP 1.0 commands.</p>
<p>Step 7</p> <pre>exit</pre> <p>Example: Router(config-sla-monitor-http)# exit</p>	<p>Exits HTTP RAW configuration submode and returns to global configuration mode.</p>

	Command or Action	Purpose
Step 8	<p>ip sla monitor schedule <i>operation-number</i> [life {forever <i>seconds</i>}] [start-time {<i>hh:mm[:ss]</i> <i>month day</i> <i>day month</i>} pending now after <i>hh:mm:ss</i>] [ageout <i>seconds</i>] [recurring]</p> <p>Example: Router(config)# ip sla monitor schedule 5 start-time now life forever</p>	Configures the scheduling parameters for an individual IP SLAs operation.
Step 9	<p>exit</p> <p>Example: Router(config)# exit</p>	(Optional) Exits global configuration mode and returns to privileged EXEC mode.
Step 10	<p>show ip sla monitor configuration [<i>operation-number</i>]</p> <p>Example: Router# show ip sla monitor configuration 10</p>	(Optional) Displays configuration values including all defaults for all IP SLAs operations or a specified operation.

Examples

The following sample output shows the configuration of all the IP SLAs parameters (including defaults) for the HTTP RAW operation number 8.

```
Router# show ip sla monitor configuration 8

Complete Configuration Table (includes defaults)
Entry Number: 8
Owner:
Tag:
Type of Operation to Perform: http
Reaction and History Threshold (milliseconds): 5000
Operation Frequency (seconds): 90
Operation Timeout (milliseconds): 5000
Verify Data: FALSE
Status of Entry (SNMP RowStatus): active
Protocol Type: httpAppl
Target Address:
Source Address: 0.0.0.0
Target Port: 0
Source Port: 0
Request Size (ARR data portion): 1
Response Size (ARR data portion): 1
Control Packets: enabled
Loose Source Routing: disabled
LSR Path:
Type of Service Parameters: 0x0
HTTP Operation: raw
HTTP Server Version: 1.0
URL: http://198.133.219.25
Proxy:
Raw String(s):
GET /en/US/hmpgs/index.html HTTP/1.0\r\n\r\n

Cache Control: enabled
Life (seconds): infinite - runs forever
Next Scheduled Start Time: Start Time already passed
Entry Ageout (seconds): never
```

```
Connection Loss Reaction Enabled: FALSE
Timeout Reaction Enabled: FALSE
Threshold Reaction Type: never
Threshold Falling (milliseconds): 3000
Threshold Count: 5
Threshold Count2: 5
Reaction Type: none
Verify Error Reaction Enabled: FALSE
Number of Statistic Hours kept: 2
Number of Statistic Paths kept: 1
Number of Statistic Hops kept: 1
Number of Statistic Distribution Buckets kept: 1
Statistic Distribution Interval (milliseconds): 20
Number of History Lives kept: 0
Number of History Buckets kept: 15
Number of History Samples kept: 1
History Filter Type: none
```

Troubleshooting Tips

Use the **debug ip sla monitor trace** and **debug ip sla monitor error** commands to help troubleshoot issues with an IP SLAs operation.

What to Do Next

To view and interpret the results of an IP SLAs operation use the **show ip sla monitor statistics** command. Checking the output for fields that correspond to criteria in your service level agreement will help you determine whether the service metrics are acceptable.

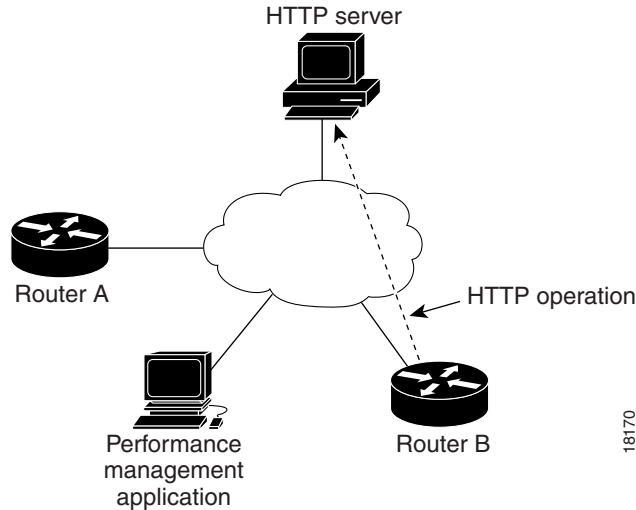
Configuration Examples for the IP SLAs HTTP Operation

This section provides the following configuration examples:

- [Configuring an HTTP GET Operation: Example, page 14](#)
- [Configuring an HTTP RAW Operation: Example, page 15](#)
- [Configuring an HTTP RAW Operation Through a Proxy Server: Example, page 15](#)
- [Configuring an HTTP RAW Operation with Authentication: Example, page 16](#)

Configuring an HTTP GET Operation: Example

The following example show how to create and configure operation number 8 as an HTTP GET operation. The destination URL IP address represents the www.cisco.com website. [Figure 1](#) depicts the HTTP GET operation.

Figure 1 HTTP Operation**Router B Configuration**

```
ip sla monitor 8
  type http operation get url http://198.133.219.25
  !
ip sla monitor schedule 8 start-time now
```

Configuring an HTTP RAW Operation: Example

The following example shows how to configure an HTTP RAW operation. To use the RAW commands, enter HTTP RAW configuration mode by using the **http-raw-request** command in IP SLA Monitor configuration mode. The IP SLA Monitor HTTP RAW configuration mode is indicated by the (config-sla-monitor-http) router prompt.

```
ip sla monitor 8
  type http operation raw url http://198.133.219.25
  http-raw-request
  GET /en/US/hmpgs/index.html HTTP/1.0\r\n
  \r\n
  end
ip sla monitor schedule 8 life forever start-time now
```

Configuring an HTTP RAW Operation Through a Proxy Server: Example

The following example shows how to configure an HTTP RAW operation through a proxy server. The proxy server is www.proxy.cisco.com and the HTTP server is www.yahoo.com.

```
ip sla monitor 8
  type http operation raw url http://www.proxy.cisco.com
  http-raw-request
  GET http://www.yahoo.com HTTP/1.0\r\n
  \r\n
  end
ip sla monitor schedule 8 life forever start-time now
```

Configuring an HTTP RAW Operation with Authentication: Example

The following example shows how to configure an HTTP RAW operation with authentication.

```
ip sla monitor 8
 type http operation raw url http://site-test.cisco.com
 http-raw-request
 GET /lab/index.html HTTP/1.0\r\n
 Authorization: Basic btNpdGT4biNvoZe=\r\n
 \r\n
 end
 ip sla monitor schedule 8 life forever start-time now
```

Where to Go Next

- If you want to configure multiple Cisco IOS IP SLAs operations at once, see the “[IP SLAs—Multiple Operation Scheduling](#)” chapter of the *Cisco IOS IP SLAs Configuration Guide*, Release 12.4.
- If you want to configure threshold parameters for an IP SLAs operation, see the “[IP SLAs—Proactive Threshold Monitoring](#)” chapter of the *Cisco IOS IP SLAs Configuration Guide*.
- If you want to configure other types of IP SLAs operations, see the “Where to Go Next” section of the “[Cisco IOS IP SLAs Overview](#)” chapter of the *Cisco IOS IP SLAs Configuration Guide*, Release 12.4.

Additional References

The following sections provide references related to monitoring the performance of an HTTP server using IP SLA.

Related Documents

Related Topic	Document Title
Overview of Cisco IOS IP SLAs	“ Cisco IOS IP SLAs Overview ” chapter of the <i>Cisco IOS IP SLAs Configuration Guide</i> , Release 12.4
Cisco IOS IP SLAs commands: complete command syntax, defaults, command mode, command history, usage guidelines, and examples	Cisco IOS IP SLAs Command Reference .

Standards

Standards	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	—

MIBs

MIBs	MIBs Link
CISCO-RTTMON-MIB	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFCs	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature.	—

Technical Assistance

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	http://www.cisco.com/techsupport

Feature Information for the IP SLAs HTTP Operation

Table 1 lists the features in this module and provides links to specific configuration information. Only features that were introduced or modified in Cisco IOS Release 12.3(14)T or a later release appear in the table.

For information on a feature in this technology that is not documented here, see the “[Cisco IOS IP SLAs Features Roadmap](#).”

Not all commands may be available in your Cisco IOS software release. For release information about a specific command, see the command reference documentation.

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS and Catalyst OS software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.


Note

Table 1 lists only the Cisco IOS software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.

Table 1 Feature Information for the IP SLAs HTTP Operation

Feature Name	Releases	Feature Information
IP SLAs HTTP Operation	12.3(14)T	The Cisco IOS IP SLAs Hypertext Transfer Protocol (HTTP) operation allows you to measure the network response time between a Cisco device and an HTTP server to retrieve a web page.

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