Understanding Testing Methods for Services and Real Servers

https://campus.barracuda.com/doc/3539004/

Testing Methods are used by the Barracuda Load Balancer Service Monitor to check the health of the Real Servers that provide a Service.

> The Testing Method configured at the Service level is executed on every Real Server that provides that Service unless a different test is configured at the Real Server level.

To specify a test on a *Service* basis, go to the **BASIC > Services** page, and click the **Edit** icon for the Service you wish to modify. To specify a test on a *Real Server* basis, click the **Edit** icon next to the IP address of the Real Server on the **BASIC > Services** page to display the **Real Server Detail** page.

The tests use the Real Server port configured on the **Real Server Detail** page for the Service except in the following cases:

- The Real Server port is set to **ALL**. The tests use the default port for the test type (e.g., SMTP = 25, HTTP = 80, DNS = 53, HTTPS = 443, IMAP = 143, POP = 110, FTP = 21 and SNMP = 161).
- The Specific HTTP Port test and the RDP test allow you to identify the port to use.

> The minimum value for the test interval, meaning the time between test start times, is 5 seconds, and the default is 30 seconds. The test interval is also the length of time the test is allowed to complete before it is considered to have failed.

Table 1. Monitor Group Testing Methods.

Test Name	Description	Test Target	Test Match
TCP Port Check	For Services specified with TCP-based ports, the Service Monitor validates that the port is open. For UDP-based Services and Services defined with "ALL" ports, the Service Monitor performs a PING test.	n/a	n/a
UDP Port Check	Check if the UDP port is open by sending a 0 byte datagram to the Real Server IP address and port. This test depends on receiving an "ICMP Port Unreachable" message to determine the result. If there is a firewall that prevents outbound ICMP messages, the test assumes that the port is open.	n/a	n/a

HTTP	Performs an HTTP GET request to the specified URL. The Real Server is used as a proxy server to retrieve the page, so the forward proxy setting on the Real Server must be enabled.	Enter the complete URL starting with "http:"	Enter a pattern expected in the resulting HTML.
Simple HTTP	Performs an HTTP GET request to the specified relative URL on the Real Server being tested. The actual URL used is **http://[real_server_ip]:[port][URL]**. You can also specify additional headers to be sent with the HTTP request in the format Header1:Value1, Header2:Value2, etc. Make sure to specify the expected HTTP response status code when accessing the URL as any other status code will be considered an error. Recommended: 200	Enter the root relative URL (such as /cgi-bin/index.cgi).	Enter a pattern expected in the resulting HTML.
Simple HTTPS	Same as Simple HTTP test but using SSL. The actual URL used will be **https://[real_server_ip]:[port][URL]**.	Enter the root relative URL (such as /cgi-bin/index.cgi) in the **Test Target** box.	Enter a pattern expected in the resulting HTML.
HTTPS Test	Performs an HTTPS GET request to the specified URL. The Real Server is used as a proxy server to retrieve the page, so the forward proxy setting on the Real Server must be enabled.	Enter the complete URL starting with "https:"	Enter a pattern expected in the resulting HTML.
DNS	Sends a DNS query to retrieve the IP address of the specified hostname. This value is compared to the IP address in the **Test Match** box.	Enter a fully qualified hostname in the **Test Target** box.	To validate resolution to a specific IP address, enter that IP in the **Test Match** box.
IMAP	Simple Test for IMAP service. If no username and password are provided, this test verifies availability of the IMAP service on the Real Server.	*Optional.* Username to log in as.	*Optional*. Password to use.
POP	Simple Test for POP service. If no username and password are provided, this test verifies availability of the POP service on the Real Server.	*Optional.* Username to log in as.	*Optional*. Password to use.
SMTP	Simple Test for SMTP service.	Enter the domain for the mail server to be tested.	*Optional*. Enter a pattern that is expected in the banner of the SMTP Server.

SNMP	Do an SNMP GET using the OID in the **Test Target** box, and match the response to the pattern in the **Test Match** box. If the **Test Target** box is empty, the test checks if the SNMP is available on the Real Server.	*Optional.* Enter a valid SNMP OID in the **Test Target** box.	*Optional*. Enter a pattern to match in the response.
SIP	Simple Test for SIP service. This test sends an OPTIONS packet to the SIP server to check availability of the SIP service.	n/a	n/a
LDAP/AD	Bind Test for LDAP/AD service. If no username and password are provided, the LDAP/AD test verifies availability of the anonymous user.	*Optional.* Username with full LDAP schema.	*Optional*. Password to use.
LDAPS/AD	Bind Test for LDAPS/AD service. If no username and password are provided, the LDAPS/AD test verifies availability of the anonymous user.	*Optional.* Username with full LDAP schema.	*Optional*. Password to use.
Barracuda Spam Firewall	The Barracuda Load Balancer IP address must be exempted from any Rate Control settings on the Barracuda Spam Firewall.	Enter the domain for the mail server to be tested.	*Optional.* Enter a pattern that is expected in the banner of the SMTP Server.
Always Pass	This test is used for troubleshooting or for services used for management access to Real Servers. This test always passes regardless of the condition of the Real Server.	n/a	n/a
Specific HTTP Port	Performs an HTTP GET request using a specified port to a relative URL on the Real Server being tested. The URL used is **http://[real_server_ip]:[port][URL]**.	Enter the TCP port followed by a ":" and the root relative URL (e.g. 8080:/cgi-bin/index.cgi)).	Enter a pattern expected in the resulting HTML.
RADIUS Auth	Tests the availability of a RADIUS server.	Enter the secret to use with the RADIUS server.	Enter a username and password separated by "|". Example: username|password
RADIUS Acct	Tests the availability of a RADIUS server by making an accounting request.	Enter the secret to use with the RADIUS server.	Enter a username and password separated by "|". Example: username|password

RDP Test	Attempts an RDP connection to each Real Server to check the availability of the Terminal Service.	Enter the port on the Real Server to use, if different than the port specified on the **Real Server Detail** page.	n/a
FTP Test	Attempts a TCP connection to each Real Server to check FTP availability.	*Optional*. Username.	*Optional*. Password.
FTPS Test	Attempts a TCP connection to each Real Server to check FTPS availability.	*Optional*. Username.	*Optional*. Password.

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