

RESTful API Programmer Guide

Technical Note

UPDATED: 28 July 2023

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

These materials and all Progress® software products are copyrighted and all rights are reserved by Progress Software Corporation. The information in these materials is subject to change without notice, and Progress Software Corporation assumes no responsibility for any errors that may appear therein. The references in these materials to specific platforms supported are subject to change.

#1 Load Balancer in Price/Performance, 360 Central, 360 Vision, Chef, Chef (and design), Chef Habitat, Chef Infra, Code Can (and design), Compliance at Velocity, Corticon, Corticon.js, DataDirect (and design), DataDirect Cloud, DataDirect Connect, DataDirect Connect64, DataDirect XML Converters, DataDirect XQuery, DataRPM, Defrag This, Deliver More Than Expected, DevReach (and design), Driving Network Visibility, Flowmon, Inspec, Ipswitch, iMacros, K (stylized), Kemp, Kemp (and design), Kendo UI, Kinvey, LoadMaster, MessageWay, MOVEit, NativeChat, OpenEdge, Powered by Chef, Powered by Progress, Progress, Progress Software Developers Network, SequeLink, Sitefinity (and Design), Sitefinity, Sitefinity (and design), Sitefinity Insight, SpeedScript, Stylized Design (Arrow/3D Box logo), Stylized Design (C Chef logo), Stylized Design of Samurai, TeamPulse, Telerik, Telerik (and design), Test Studio, WebSpeed, WhatsConfigured, WhatsConnected, WhatsUp, and WS_FTP are registered trademarks of Progress Software Corporation or one of its affiliates or subsidiaries in the U.S. and/or other countries.

Analytics360, AppServer, BusinessEdge, Chef Automate, Chef Compliance, Chef Desktop, Chef Workstation, Corticon Rules, Data Access, DataDirect Autonomous REST Connector, DataDirect Spy, DevCraft, Fiddler, Fiddler Classic, Fiddler Everywhere, Fiddler Jam, FiddlerCap, FiddlerCore, FiddlerScript, Hybrid Data Pipeline, iMail, InstaRelinker, JustAssembly, JustDecompile, JustMock, KendoReact, OpenAccess, PASOE, Pro2, ProDataSet, Progress Results, Progress Software, ProVision, PSE Pro, Push Jobs, SafeSpaceVR, Sitefinity Cloud, Sitefinity CMS, Sitefinity Digital Experience Cloud, Sitefinity Feather, Sitefinity Thunder, SmartBrowser, SmartComponent, SmartDataBrowser, SmartDataObjects, SmartDataView, SmartDialog, SmartFolder, SmartFrame, SmartObjects, SmartPanel, SmartQuery, SmartViewer, SmartWindow, Supermarket, SupportLink, Unite UX, and WebClient are trademarks or service marks of Progress Software Corporation and/or its subsidiaries or affiliates in the U.S. and other countries. Java is a registered trademark of Oracle and/or its affiliates. Any other marks contained herein may be trademarks of their respective owners.

Please refer to the NOTICE.txt or Release Notes – Third-Party Acknowledgements file applicable to a particular Progress product/hosted service offering release for any related required third-party acknowledgements.

 © 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

Table of Contents

1 Introduction **7**

1.1 Document Purpose 7

1.2 Intended Audience 7

1.3 Prerequisites 7

2 API Examples **8**

2.1 Virtual Service Examples 9

2.1.1 Add a Virtual Service with Default Values 9

2.1.2 Add a Virtual Service and Set Values 11

2.1.3 List the Virtual Service Details 13

2.1.4 Modify a Virtual Service 16

2.1.5 Add a Real Server to a Virtual Service 18

2.1.6 Modify a Real Server 18

2.1.7 Delete a Real Server 19

2.1.8 Change Real Server Health Check Type 23

2.1.9 Create a SubVS 26

2.1.10 Modify a SubVS 27

2.1.11 Delete a SubVS 27

2.1.12 Enable the Web Application Firewall (WAF) on a Virtual Service 29

2.1.13 Add a WAF Rule to a Virtual Service 31

2.1.14 Delete a Virtual Service 31

2.1.15 Add Client Side Single Sign On (SSO) Configuration 33

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.1.16 Display a Client Side SSO Configuration 34
2.1.17 Modify a Client Side SSO Configuration 35
2.1.18 Delete a Client Side SSO Configuration 36
2.1.19 Add a Custom SSO Image Set 37
2.1.20 Delete a Custom SSO Image Set 37
2.1.21 List WAF Custom Rules 38
2.1.22 Upload a WAF Custom Rule 39
2.1.23 Download a WAF Custom Rule 40
2.1.24 Delete a WAF Custom Rule 40
2.2 Statistics 41
2.2.1 Show stats 41
2.3 Rules & Checking 42
2.3.1 Add a content rule to the system 42
2.3.2 Modify a Content Rule 43
2.3.3 Delete Rule 44
2.3.4 List the Content Rules Assigned to a Virtual Service 44
2.3.5 Add a Content Rule to a Virtual Service 46
2.3.6 Unassign a Content Rule from a Virtual Service 47
2.3.7 Set Retry Interval 48
2.4 Certificates 48
2.4.1 Add a Certificate 48
2.4.2 Delete a Certificate 49

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.4.3 Backup a Certificate 49
2.4.4 Restore Certificates 49
2.5 GEO 50
2.5.1 Add an FQDN 50
2.5.2 Modify an FQDN 51
2.5.3 Add an IP Address to an FQDN 51
2.5.4 Modify the IP Address of an FQDN 52
2.5.5 Delete an IP Address from an FQDN 53
2.5.6 Delete an FQDN 54
2.5.7 Add a Cluster 55
2.5.8 Modify a Cluster 56
2.5.9 Modify a Cluster Location 57
2.5.10 Delete a Cluster 57
2.5.11 Modify the GEO Miscellaneous Parameters 58
2.5.12 Add an IP Range 58
2.5.13 Modify an IP Location 59
2.5.14 Delete an IP Range 60
3 Basic Scripting Examples 62
3.1 Shell Script Example to Add Multiple Virtual Services with Default Settings 62
3.2 Shell Script Example to Delete Multiple Basic Virtual Services 62
3.3 Shell Script Example to Modify the Same Parameter on Multiple Virtual Services 63
3.4 Shell Script Example to Add Multiple FQDNs 63

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

3.5 Shell Script Example to Add Multiple IP Addresses to an FQDN 63

3.6 Shell Script Example to Extract the SubVSs Index from one Command and Use in Another63

4 Microsoft Exchange 2013 HTTPS Offloaded Example 64

References 69

RESTful API, Interface Description 69

Last Updated Date 70

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

1 Introduction

Kemp leads the industry in driving the price/performance value proposition for application delivery and load balancing to levels that our customers can afford. Our products' versatile and powerful architecture provide the highest value, while enabling our customers to optimize businesses that rely on Internet-based infrastructure to conduct business with their customers, employees and partners. Kemp products optimize web and application infrastructure as defined by High Availability (HA), high-performance, flexible scalability, security and ease of management. They maximize the total cost-of-ownership for web infrastructure, while enabling flexible and comprehensive deployment options.

1.1 Document Purpose

This document provides examples of how some RESTful API commands (which are listed and described in the main RESTful API, Interface Description document) might be used, using example data. This document is intended to complement the main RESTful API description document.

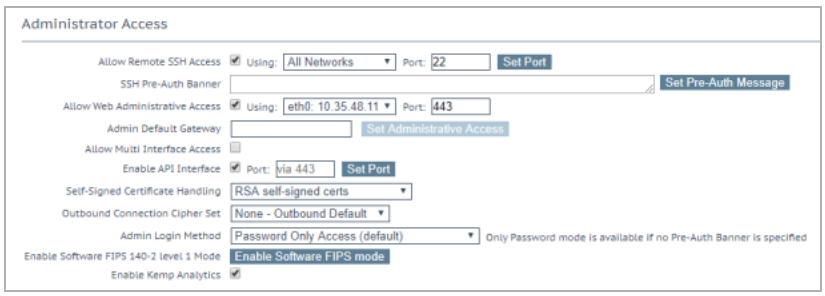
1.2 Intended Audience

This document is intended to help anyone who wishes to configure the Kemp LoadMaster using the RESTful API.

1.3 Prerequisites

Before attempting any of the examples in this document, ensure that the API interface is enabled on the LoadMaster. To do this, follow the steps below:

1. In the main menu of the LoadMaster Web User Interface (WUI), go to **Certificates & Security > Remote Access**.



2. Select the **Enable API Interface** check box.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2 API Examples

The LoadMaster RESTful API can be used in conjunction with many scripting methods and applications to allow users and applications to directly access the LoadMaster.

The examples provided in this document use the cURL tool (a Linux command line tool for transferring data with URL syntax) to demonstrate the structure of the API URL.

The syntax for using cURL is as follows:

```
curl -o <output XML> -k -silent -u <user>:<Password> <URL>
```

> If the username or password has a space in them, please surround <user> and <password> with double quotes, for example “<user>”:”<password>”.

- -o: output to the following file rather than just showing the results on screen
- <output XML>: the filename to store the response XML from the LoadMaster.
- -k: ignore the SSL certification on the LoadMaster
- -silent: do not output anything on screen
- -u: use the following login information
- <user>: the username
- <Password>: the user password
- <URL>: the query to send

The syntax for xpath is as follows:

```
xpath -q –e <XML path> <XML file>
```

- -q do not output anything informational, only output the raw data
- <XML path> the path inside the XML structure to look for the raw data
- <XML file> the XML file to parse

Instead of printing the data output from the XML parsing on the screen, the output can be assigned to a variable as follows:

```
var=“expr xpath -q –e <XML path> <XML file>”
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

It is possible to pass parameters in a cURL command via the HTTP POST method. This is a more secure method because the parameters are not passed in the URL.

Examples of a get and set command using this method are below:

```
curl --data "param=motd" -k
https://<user>:<password>@<LoadMasterIPAddress>/access/get
curl --data "param=motd&value=<value>" -k https://
<user>:<password>@<LoadMasterIPAddress>/access/set
```

The examples in this document include a typical XML response which is generated by the command.

Some examples show a “before” situation and an “after” situation where the object has been changed.

Items in the response which have changed as a result of the command are highlighted in yellow.

2.1 Virtual Service Examples

2.1.1 Add a Virtual Service with Default Values

The example below shows a command to the LoadMaster at the IP address **20.200.25.100** to create a Virtual Service with the IP address **20.200.25.250** on **Port 80** for the **TCP** protocol. Creating a Virtual Service will enable a default set of options for the Virtual Service, as can be seen in the response below. For example, the Edge Security Pack (ESP) is disabled and the Web Application Firewall (WAF) (**Intercept**) is disabled.

```
curl -k
"https://bal:1fourall@20.200.25.100/access/addvs?vs=20.200.25.250&port=80&pro
t=tcp"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Status>Down</Status>
<Index>15</Index>
<VSAddress>20.200.25.250</VSAddress>
<VSPort>80</VSPort>
<Enable>Y</Enable>
<SSLReverse>N</SSLReverse>
<SSLReencrypt>N</SSLReencrypt>
<Intercept>N</Intercept>
<InterceptOpts><Opt>opnormal</Opt>
<Opt>auditnone</Opt>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Opt>reqdatadisable</Opt>
<Opt>resdatadisable</Opt>
</InterceptOpts><AlertThreshold>0</AlertThreshold>
<Transactionlimit>0</Transactionlimit>
<Transparent>Y</Transparent>
<ServerInit>0</ServerInit>
<StartTLSMode>0</StartTLSMode>
<Idletime>0</Idletime>
<Cache>N</Cache>
<Compress>N</Compress>
<Verify>0</Verify>
<UseforSnat>N</UseforSnat>
<ForceL7>Y</ForceL7>
<ClientCert>0</ClientCert>
<ErrorCode>0</ErrorCode>
<CheckUse1.1>N</CheckUse1.1>
<MatchLen>0</MatchLen>
<CheckUseGet>0</CheckUseGet>
<SSLRewrite>0</SSLRewrite>
<VStype>http</VStype>
<FollowVSID>0</FollowVSID>
<Protocol>tcp</Protocol>
<Schedule>rr</Schedule>
<CheckType>http</CheckType>
<PersistTimeout>0</PersistTimeout>
<CheckPort>0</CheckPort>
<NRules>0</NRules>
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>0</NPreProcessRules>
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
<MasterVS>0</MasterVS>
<MasterVSID>0</MasterVSID>
<AddVia>0</AddVia>
<TlsType>N</TlsType>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>0</NumberOfRSs>
</Data>
</Success>
</Response>
```

2.1.2 Add a Virtual Service and Set Values

The example below shows a command which adds a Virtual Service with the IP address **20.200.25.250** on **Port 80** for the **TCP** protocol. This command also sets the **nickname** of the new Virtual Service to **testvs** and disabled the **Transparency** option.:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/addvs?vs=20.200.25.250&port=80&prot=tcp&nickname=testvs&transparent=N"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Status>Down</Status>
<Index>15</Index>
<VSAddress>20.200.25.250</VSAddress>
<VSPort>80</VSPort>
<NickName>testvs</NickName>
<Enable>Y</Enable>
<SSLReverse>N</SSLReverse>
<SSLReencrypt>N</SSLReencrypt>
<Intercept>N</Intercept>
<InterceptOpts><Opt>opnormal</Opt>
<Opt>auditnone</Opt>
<Opt>reqdatadisable</Opt>
<Opt>resdatadisable</Opt>
</InterceptOpts><AlertThreshold>0</AlertThreshold>
<Transactionlimit>0</Transactionlimit>
<Transparent>N</Transparent>
<ServerInit>0</ServerInit>
<StartTLSMode>0</StartTLSMode>
<Idletime>0</Idletime>
<Cache>N</Cache>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Compress>N</Compress>
<Verify>0</Verify>
<UseforSnat>N</UseforSnat>
<ForceL7>Y</ForceL7>
<ClientCert>0</ClientCert>
<ErrorCode>0</ErrorCode>
<CheckUse1.1>N</CheckUse1.1>
<MatchLen>0</MatchLen>
<CheckUseGet>0</CheckUseGet>
<SSLRewrite>0</SSLRewrite>
<VStype>http</VStype>
<FollowVSID>0</FollowVSID>
<Protocol>tcp</Protocol>
<Schedule>rr</Schedule>
<CheckType>http</CheckType>
<PersistTimeout>0</PersistTimeout>
<CheckPort>0</CheckPort>
<NRules>0</NRules>
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>0</NPreProcessRules>
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
<MasterVS>0</MasterVS>
<MasterVSID>0</MasterVSID>
<AddVia>0</AddVia>
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>0</NumberOfRSs>
</Data>
</Success>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.1.3 List the Virtual Service Details

When referencing a Virtual Service, the IP address, port and protocol can be used. The VS index can also be used, which replaces those three parameters.

To get the VS index (**Index** parameter), and to list the settings for the existing Virtual Services, run the **ListVS** command:

```
curl -k https://bal:1fourall@20.200.25.100/access/listvs
```

Response:

```
<Response stat="200" code="ok">
<Success>
<Data>
<VS>
<Status>Down</Status>
<Index>1</Index>
<VSAddress>20.200.25.250</VSAddress>
<VSPort>80</VSPort>
<NickName>testvs</NickName>
<Enable>Y</Enable>
<SSLReverse>N</SSLReverse>
<SSLReencrypt>N</SSLReencrypt>
<Intercept>N</Intercept>
<InterceptOpts>
<Opt>opnormal</Opt>
<Opt>auditnone</Opt>
<Opt>reqdatadisable</Opt>
<Opt>resdatadisable</Opt>
</InterceptOpts>
<AlertThreshold>0</AlertThreshold>
<Transactionlimit>0</Transactionlimit>
<Transparent>N</Transparent>
<ServerInit>0</ServerInit>
<StartTLSMode>0</StartTLSMode>
<Idletime>0</Idletime>
<Cache>N</Cache>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Compress>N</Compress>
<Verify>0</Verify>
<UseforSnat>N</UseforSnat>
<ForceL7>Y</ForceL7>
<ClientCert>0</ClientCert>
<ErrorCode>0</ErrorCode>
<CheckUse1.1>N</CheckUse1.1>
<MatchLen>0</MatchLen>
<CheckUseGet>0</CheckUseGet>
<SSLRewrite>0</SSLRewrite>
<VStype>http</VStype>
<FollowVSID>0</FollowVSID>
<Protocol>tcp</Protocol>
<Schedule>rr</Schedule>
<CheckType>http</CheckType>
<PersistTimeout>0</PersistTimeout>
<CheckPort>0</CheckPort>
<NRules>0</NRules>
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>0</NPreProcessRules>
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
<MasterVS>0</MasterVS>
<MasterVSID>0</MasterVSID>
<AddVia>0</AddVia>
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>0</NumberOfRSs>
</VS>
<VS>
<Status>Down</Status>
<Index>2</Index>
<VSAddress>20.200.25.250</VSAddress>
<VSPort>80</VSPort>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<NickName>newname</NickName>
<Enable>Y</Enable>
<SSLReverse>N</SSLReverse>
<SSLReencrypt>N</SSLReencrypt>
<Intercept>N</Intercept>
<InterceptOpts>
<Opt>opnormal</Opt>
<Opt>auditnone</Opt>
<Opt>reqdatadisable</Opt>
<Opt>resdatadisable</Opt>
</InterceptOpts>
<AlertThreshold>0</AlertThreshold>
<Transactionlimit>0</Transactionlimit>
<Transparent>Y</Transparent>
<ServerInit>0</ServerInit>
<StartTLSMode>0</StartTLSMode>
<Idletime>0</Idletime>
<Cache>N</Cache>
<Compress>N</Compress>
<Verify>0</Verify>
<UseforSnat>N</UseforSnat>
<ForceL7>Y</ForceL7>
<ClientCert>0</ClientCert>
<ErrorCode>0</ErrorCode>
<CheckUse1.1>N</CheckUse1.1>
<MatchLen>0</MatchLen>
<CheckUseGet>0</CheckUseGet>
<SSLRewrite>0</SSLRewrite>
<VStype>http</VStype>
<FollowVSID>0</FollowVSID>
<Protocol>tcp</Protocol>
<Schedule>rr</Schedule>
<CheckType>http</CheckType>
<PersistTimeout>0</PersistTimeout>
<CheckPort>0</CheckPort>
<NRules>0</NRules>
<NRequestRules>0</NRequestRules>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<NResponseRules>0</NResponseRules>
<NPreProcessRules>0</NPreProcessRules>
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
<MasterVS>0</MasterVS>
<MasterVSID>0</MasterVSID>
<AddVia>0</AddVia>
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>0</NumberOfRSs>
</VS>
</Data>
</Success>
</Response>
```

2.1.4 Modify a Virtual Service

When referencing a Virtual Service, the IP address, port and protocol can be used. The VS index can also be used, which replaces those three parameters. To find out how to get the VS index, refer to the **List the Virtual Service Details** section.

The following example command modifies the existing **20.200.25.250** Virtual Service to set the **nickname** to **newname** and enable transparency:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/modvs?vs=20.200.25.250&port=80&prot=tcp&nickname=newname&transparent=Y"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Status>Down</Status>
<Index>15</Index>
<VSAddress>20.200.25.250</VSAddress>
<VSPort>80</VSPort>
<NickName>newname</NickName>
<Enable>Y</Enable>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<SSLReverse>N</SSLReverse>
<SSLReencrypt>N</SSLReencrypt>
<Intercept>N</Intercept>
<InterceptOpts><Opt>opnormal</Opt>
<Opt>auditnone</Opt>
<Opt>reqdatadisable</Opt>
<Opt>resdatadisable</Opt>
</InterceptOpts><AlertThreshold>0</AlertThreshold>
<Transactionlimit>0</Transactionlimit>
<Transparent>Y</Transparent>
<ServerInit>0</ServerInit>
<StartTLSMode>0</StartTLSMode>
<Idletime>0</Idletime>
<Cache>N</Cache>
<Compress>N</Compress>
<Verify>0</Verify>
<UseforSnat>N</UseforSnat>
<ForceL7>Y</ForceL7>
<ClientCert>0</ClientCert>
<ErrorCode>0</ErrorCode>
<CheckUse1.1>N</CheckUse1.1>
<MatchLen>0</MatchLen>
<CheckUseGet>0</CheckUseGet>
<SSLRewrite>0</SSLRewrite>
<VStype>http</VStype>
<FollowVSID>0</FollowVSID>
<Protocol>tcp</Protocol>
<Schedule>rr</Schedule>
<CheckType>http</CheckType>
<PersistTimeout>0</PersistTimeout>
<CheckPort>0</CheckPort>
<NRules>0</NRules>
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>0</NPreProcessRules>
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<OutputAuthMode>0</OutputAuthMode>
<MasterVS>0</MasterVS>
<MasterVSID>0</MasterVSID>
<AddVia>0</AddVia>
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>0</NumberOfRSs>
</Data>
</Success>
</Response>
```

2.1.5 Add a Real Server to a Virtual Service

The following command adds a Real Server with the IP address **20.200.25.21** on port **80** to the existing **20.200.25.100** Virtual Service:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/addrs?vs=20.200.25.202&port=80&pro
t=tcp&rs=20.200.25.21&rsport=80"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Command completed ok</Success>
</Response>
```

2.1.6 Modify a Real Server

The following command modifies the existing **20.200.25.21** Real Server to set the **weight** to **500**:

```
https://bal:1fourall@20.200.25.100/access/modrs?vs=20.200.25.202&port=80&prot
=tcp&rs=20.200.25.21&rsport=80&weight=500
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Command completed ok</Success>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.1.7 Delete a Real Server

The following example command deletes the **20.200.25.21** Real Server from the **20.200.25.202** Virtual Service.

Situation before delete:

```
<Response stat="200" code="ok">
<Success>
<Data>
<VS>
<Status>Down</Status>
<Index>2</Index>
<VSAddress>20.200.25.202</VSAddress>
<VSPort>80</VSPort>
<NickName>newname</NickName>
<Enable>Y</Enable>
<SSLReverse>N</SSLReverse>
<SSLReencrypt>N</SSLReencrypt>
<Intercept>N</Intercept>
<InterceptOpts>
<Opt>opnormal</Opt>
<Opt>auditnone</Opt>
<Opt>reqdatadisable</Opt>
<Opt>resdatadisable</Opt>
</InterceptOpts>
<AlertThreshold>0</AlertThreshold>
<Transactionlimit>0</Transactionlimit>
<Transparent>Y</Transparent>
<ServerInit>0</ServerInit>
<StartTLSMode>0</StartTLSMode>
<Idletime>0</Idletime>
<Cache>N</Cache>
<Compress>N</Compress>
<Verify>0</Verify>
<UseforSnat>N</UseforSnat>
<ForceL7>Y</ForceL7>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

<ClientCert>0</ClientCert>
<ErrorCode>0</ErrorCode>
<CheckUse1.1>N</CheckUse1.1>
<MatchLen>0</MatchLen>
<CheckUseGet>0</CheckUseGet>
<SSLRewrite>0</SSLRewrite>
<VStype>http</VStype>
<FollowVSID>0</FollowVSID>
<Protocol>tcp</Protocol>
<Schedule>rr</Schedule>
<CheckType>http</CheckType>
<PersistTimeout>0</PersistTimeout>
<CheckPort>0</CheckPort>
<NRules>0</NRules>
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>0</NPreProcessRules>
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
<MasterVS>0</MasterVS>
<MasterVSID>0</MasterVSID>
<AddVia>0</AddVia>
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>1</NumberOfRSs>
<Rs>
<Status>Down</Status>
<VSIndex>2</VSIndex>
<RsIndex>1</RsIndex>
<Addr>20.200.25.21</Addr>
<Port>80</Port>
<Forward>nat</Forward>
<Weight>1000</Weight>
<Limit>0</Limit>
<Enable>Y</Enable>

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
</Rs>
</VS>
</Data>
</Success>
</Response>
```

```
curl -k
"https://bal:1fourall@20.200.25.100/access/delrs?vs=20.200.25.202&port=80&pro
t=tcp&rs=20.200.25.21&rsport=80"
```

Situation after delete:

```
<Response stat="200" code="ok">
<Success>
<Data>
<VS>
<Status>Down</Status>
<Index>2</Index>
<VSAddress>20.200.25.202</VSAddress>
<VSPort>80</VSPort>
<NickName>newname</NickName>
<Enable>Y</Enable>
<SSLReverse>N</SSLReverse>
<SSLReencrypt>N</SSLReencrypt>
<Intercept>N</Intercept>
<InterceptOpts>
<Opt>opnormal</Opt>
<Opt>auditnone</Opt>
<Opt>reqdatadisable</Opt>
<Opt>resdatadisable</Opt>
</InterceptOpts>
<AlertThreshold>0</AlertThreshold>
<Transactionlimit>0</Transactionlimit>
<Transparent>Y</Transparent>
<ServerInit>0</ServerInit>
<StartTLSMode>0</StartTLSMode>
<Idletime>0</Idletime>
<Cache>N</Cache>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Compress>N</Compress>
<Verify>0</Verify>
<UseforSnat>N</UseforSnat>
<ForceL7>Y</ForceL7>
<ClientCert>0</ClientCert>
<ErrorCode>0</ErrorCode>
<CheckUse1.1>N</CheckUse1.1>
<MatchLen>0</MatchLen>
<CheckUseGet>0</CheckUseGet>
<SSLRewrite>0</SSLRewrite>
<VStype>http</VStype>
<FollowVSID>0</FollowVSID>
<Protocol>tcp</Protocol>
<Schedule>rr</Schedule>
<CheckType>http</CheckType>
<PersistTimeout>0</PersistTimeout>
<CheckPort>0</CheckPort>
<NRules>0</NRules>
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>0</NPreProcessRules>
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
<MasterVS>0</MasterVS>
<MasterVSID>0</MasterVSID>
<AddVia>0</AddVia>
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>0</NumberOfRSs>
</VS>
</Data>
</Success>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.1.8 Change Real Server Health Check Type

The following example changes the health check of the **20.200.25.200** Real Server to **none**:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/modvs?vs=20.200.25.200&port=80&pro
t=tcp&checktype=none"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Status>Unchecked</Status>
<Index>1</Index>
<VSAddress>20.200.25.200</VSAddress>
<VSPort>80</VSPort>
<NickName>newname</NickName>
<Enable>Y</Enable>
<SSLReverse>N</SSLReverse>
<SSLReencrypt>N</SSLReencrypt>
<Intercept>Y</Intercept>
<InterceptOpts><Opt>opblock</Opt>
<Opt>auditall</Opt>
<Opt>reqdatadisable</Opt>
<Opt>resdatadisable</Opt>
</InterceptOpts><AlertThreshold>0</AlertThreshold>
<InterceptRules>A/cpanel_attacks</InterceptRules>
<Transactionlimit>0</Transactionlimit>
<Transparent>N</Transparent>
<ServerInit>0</ServerInit>
<StartTLSMode>0</StartTLSMode>
<Idletime>0</Idletime>
<Cache>N</Cache>
<Compress>N</Compress>
<Verify>0</Verify>
<UseforSnat>N</UseforSnat>
<ForceL7>Y</ForceL7>
<ClientCert>0</ClientCert>
<ErrorCode>0</ErrorCode>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<ErrorUrl>https:%h%s</ErrorUrl>
<CheckUse1.1>N</CheckUse1.1>
<MatchLen>0</MatchLen>
<CheckUseGet>0</CheckUseGet>
<SSLRewrite>0</SSLRewrite>
<VStype>http</VStype>
<FollowVSID>2</FollowVSID>
<FollowVS>tcp/20.200.25.201:80</FollowVS>
<Protocol>tcp</Protocol>
<Schedule>rr</Schedule>
<CheckType>none</CheckType>
<PersistTimeout>360</PersistTimeout>
<Cookie>Set_Me</Cookie>
<CheckPort>44</CheckPort>
<NRules>0</NRules>
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>0</NPreProcessRules>
<EspEnabled>Y</EspEnabled>
<EspLogs>7</EspLogs>
<PermanentCookies>0</PermanentCookies>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
<MasterVS>0</MasterVS>
<MasterVSID>0</MasterVSID>
<AddVia>0</AddVia>
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>5</NumberOfRSs>
<Rs>
<Status>Up</Status>
<VSIndex>1</VSIndex>
<RsIndex>1</RsIndex>
<Addr>20.200.15.20</Addr>
<Port>80</Port>
<Forward>nat</Forward>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Weight>1000</Weight>
<Limit>0</Limit>
<Enable>Y</Enable>
</Rs>
<Rs>
<Status>Up</Status>
<VSIndex>1</VSIndex>
<RsIndex>2</RsIndex>
<Addr>20.200.15.21</Addr>
<Port>80</Port>
<Forward>nat</Forward>
<Weight>1000</Weight>
<Limit>0</Limit>
<Enable>Y</Enable>
</Rs>
<Rs>
<Status>Up</Status>
<VSIndex>1</VSIndex>
<RsIndex>3</RsIndex>
<Addr>20.200.15.22</Addr>
<Port>80</Port>
<Forward>nat</Forward>
<Weight>1000</Weight>
<Limit>0</Limit>
<Enable>Y</Enable>
</Rs>
<Rs>
<Status>Up</Status>
<VSIndex>1</VSIndex>
<RsIndex>4</RsIndex>
<Addr>20.200.15.23</Addr>
<Port>80</Port>
<Forward>nat</Forward>
<Weight>1000</Weight>
<Limit>0</Limit>
<Enable>Y</Enable>
</Rs>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Rs>
<Status>Up</Status>
<VSIndex>1</VSIndex>
<RsIndex>5</RsIndex>
<Addr>20.200.15.24</Addr>
<Port>80</Port>
<Forward>nat</Forward>
<Weight>1000</Weight>
<Limit>0</Limit>
<Enable>Y</Enable>
</Rs>
</Data>
</Success>
</Response>
```

2.1.9 Create a SubVS

The following command adds a SubVS to the 20.200.25.200 Virtual Service:

```
curl -k
"https://bal:1fourall@10.154.25.100/access/modvs?vs=20.200.25.200&port=80&prot=tcp&createsubvs="
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Status>Down</Status>
<Index>22</Index>
<VSAddress>20.200.25.200</VSAddress>
<VSPort>80</VSPort>
<Enable>Y</Enable>
.
.
.
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>1</NumberOfRSs>
<SubVS>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<VSIndex>23</VSIndex>
<RsIndex>24</RsIndex>
<Name>-</Name>
<Forward>nat</Forward>
<Weight>1000</Weight>
<Limit>0</Limit>
<Enable>Y</Enable>
</SubVS>
</Data>
</Success>
</Response>
```

2.1.10 Modify a SubVS

The following command changes the nickname on SubVS 23 to “newnickname”:

```
curl -k
"https://bal:1fourall@10.154.25.100/access/modvs?vs=23&nickname=newnickname"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Status>Down</Status>
<Index>23</Index>
<VSPort>0</VSPort>
<NickName>newnickname</NickName>
<OCSPVerify>N</OCSPVerify>
.
.
.
<NumberOfRSs>0</NumberOfRSs>
</Data>
</Success>
</Response>
```

2.1.11 Delete a SubVS

The following command deletes SubVS 23.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

Situation before delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Status>Down</Status>
<Index>22</Index>
<VSAddress>20.200.25.200</VSAddress>
<VSPort>80</VSPort>
<Enable>Y</Enable>
<NumberOfRSs>1</NumberOfRSs>
.
.
.
<SubVS>
<VSIndex>23</VSIndex>
<RsIndex>24</RsIndex>
<Name>nickname</Name>
<Forward>nat</Forward>
<Weight>1000</Weight>
<Limit>0</Limit>
<Enable>Y</Enable>
</SubVS>
</Data>
</Success>
</Response>
```

curl -k "https://bal:1fourall@10.154.25.100/access/delvs?vs=23

Situation after delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Status>Down</Status>
<Index>22</Index>
<VSAddress>20.200.25.200</VSAddress>
<VSPort>80</VSPort>
<Enable>Y</Enable>
.
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
.
.
<NumberOfRSs>0</NumberOfRSs>
</Data>
</Success>
</Response>
```

2.1.12 Enable the Web Application Firewall (WAF) on a Virtual Service

The following command enables WAF (**intercept** parameter) on the **20.200.25.200** Virtual Service:

```
curl -k
https://bal:1fourall@20.200.25.100/access/modvs?vs=20.200.25.200&port=80&prot
=tcp&intercept=Y
```

Response:

```
<Response stat="200" code="ok">
<Success>
<Data>
<Status>Down</Status>
<Index>2</Index>
<VSAddress>20.200.25.200</VSAddress>
<VSPort>80</VSPort>
<NickName>newname</NickName>
<Enable>Y</Enable>
<SSLReverse>N</SSLReverse>
<SSLReencrypt>N</SSLReencrypt>
<Intercept>Y</Intercept>
<InterceptOpts>
<Opt>opnormal</Opt>
<Opt>auditnone</Opt>
<Opt>reqdatadisable</Opt>
<Opt>resdatadisable</Opt>
</InterceptOpts>
<AlertThreshold>0</AlertThreshold>
<Transactionlimit>0</Transactionlimit>
<Transparent>Y</Transparent>
<ServerInit>0</ServerInit>
<StartTLSMode>0</StartTLSMode>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Idletime>0</Idletime>
<Cache>N</Cache>
<Compress>N</Compress>
<Verify>0</Verify>
<UseforSnat>N</UseforSnat>
<ForceL7>Y</ForceL7>
<ClientCert>0</ClientCert>
<ErrorCode>0</ErrorCode>
<CheckUse1.1>N</CheckUse1.1>
<MatchLen>0</MatchLen>
<CheckUseGet>0</CheckUseGet>
<SSLRewrite>0</SSLRewrite>
<VStype>http</VStype>
<FollowVSID>0</FollowVSID>
<Protocol>tcp</Protocol>
<Schedule>rr</Schedule>
<CheckType>http</CheckType>
<PersistTimeout>0</PersistTimeout>
<CheckPort>0</CheckPort>
<NRules>0</NRules>
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>0</NPreProcessRules>
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
<MasterVS>0</MasterVS>
<MasterVSID>0</MasterVSID>
<AddVia>0</AddVia>
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>0</NumberOfRSs>
</Data>
</Success>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.1.13 Add a WAF Rule to a Virtual Service

The following command adds the application-specific **cpanel_attacks** rule to the **20.200.25.200** Virtual Service:

```
curl -k
https://bal:1fourall@20.200.25.100/access/vsaddwafrule?vs=20.200.25.200&port=
80&prot=tcp&rule=A/cpanel_attacks
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Command completed ok</Success>
</Response>
```

2.1.14 Delete a Virtual Service

The following command deletes the **20.200.25.250** Virtual Service.

Situation before delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><VS>
<Index>1</Index>
<VSAddress>20.200.25.210</VSAddress>
<VSPort>80</VSPort>
<Enable>Y</Enable>
.
.
.
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<NumberOfRSs>1</NumberOfRSs>
<Rs>
<VSIndex>1</VSIndex>
<RsIndex>1</RsIndex>
<Addr>20.200.25.22</Addr>
<Port>80</Port>
<Forward>nat</Forward>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Weight>1000</Weight>
<Limit>0</Limit>
<Enable>Y</Enable>
</Rs>
</VS>
<VS>
<Index>2</Index>
<VSAddress>20.200.25.250</VSAddress>
<VSPort>80</VSPort>
<Enable>Y</Enable>
.
.
.
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<NumberOfRSs>0</NumberOfRSs>
</VS>
</Data>
</Success>
</Response>
```

```
curl -k
"https://bal:1fourall@20.200.25.100/access/delvs?vs=20.200.25.250&port=80&pro
t=tcp"
```

Response:

```
<Response stat="200" code="ok">
<Success>Command completed ok</Success>
</Response>
```

If you run the **listvs** command after deleting the Virtual Service, the existing Virtual Service details will be displayed but the deleted Virtual Service details will no longer appear.

Situation after delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><VS>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Index>1</Index>
<VSAddress>20.200.25.210</VSAddress>
<VSPort>80</VSPort>
<Enable>Y</Enable>
.
.
.
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<NumberOfRSs>1</NumberOfRSs>
<Rs>
<VSIndex>1</VSIndex>
<RsIndex>1</RsIndex>
<Addr>20.200.25.22</Addr>
<Port>80</Port>
<Forward>nat</Forward>
<Weight>1000</Weight>
<Limit>0</Limit>
<Enable>Y</Enable>
</Rs>
</VS>
</Data>
</Success>
</Response>
```

2.1.15 Add Client Side Single Sign On (SSO) Configuration

The following command adds a client side SSO domain with the name **clientdomainname**:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/adddomain?domain=clientdomainname"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Domain 'CLIENTDOMAINNAME' created</Success>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.1.16 Display a Client Side SSO Configuration

The following command displays details about the **clientdomainname** SSO domain:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/showdomain?domain=clientdomainname"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Domain>
<Id>4</Id>
<Name>CLIENTDOMAINNAME</Name>
<testuser></testuser>
<ldap_version>3</ldap_version>
<server_side>0</server_side>
<auth_type>LDAP-StartTLS</auth_type>
<logon_fmt>Principalname</logon_fmt>
<logon_domain></logon_domain>
<kerberos_domain></kerberos_domain>
<kerberos_kdc></kerberos_kdc>
<kcd_username></kcd_username>
<max_failed_auths>0</max_failed_auths>
<reset_fail_tout>60</reset_fail_tout>
<unblock_tout>1800</unblock_tout>
<sess_tout_type>idle time</sess_tout_type>
<sess_tout_idle_pub>900</sess_tout_idle_pub>
<sess_tout_duration_pub>1800</sess_tout_duration_pub>
<sess_tout_idle_priv>900</sess_tout_idle_priv>
<sess_tout_duration_priv>28800</sess_tout_duration_priv>
<cert_check_asi>0</cert_check_asi>
</Domain>
</Data>
</Success>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.1.17 Modify a Client Side SSO Configuration

The following command modifies the **clientdomainname** SSO domain by changing the authentication type to **RADIUS** and changing the maximum number of failed authentication requests to **5**:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/moddomain?domain=clientdomainname&
authtype=RADIUS&max_failed_auths=5"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Domain>
<Id>4</Id>
<Name>CLIENTDOMAINNAME</Name>
<testuser></testuser>
<ldap_version>3</ldap_version>
<server_side>0</server_side>
<auth_type>RADIUS</auth_type>
<logon_fmt>Principalname</logon_fmt>
<logon_domain></logon_domain>
<kerberos_domain></kerberos_domain>
<kerberos_kdc></kerberos_kdc>
<kcd_username></kcd_username>
<max_failed_auths>5</max_failed_auths>
<reset_fail_tout>60</reset_fail_tout>
<unblock_tout>1800</unblock_tout>
<sess_tout_type>idle time</sess_tout_type>
<sess_tout_idle_pub>900</sess_tout_idle_pub>
<sess_tout_duration_pub>1800</sess_tout_duration_pub>
<sess_tout_idle_priv>900</sess_tout_idle_priv>
<sess_tout_duration_priv>28800</sess_tout_duration_priv>
<cert_check_asi>0</cert_check_asi>
</Domain>
</Data>
</Success>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.1.18 Delete a Client Side SSO Configuration

The following command deletes the **clientdomainname** SSO domain.

Situation before delete:

The below XML response shows the situation before the delete (using the **showdomain** command):

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Domain>
<Id>4</Id>
<Name>CLIENTDOMAINNAME</Name>
<testuser></testuser>
<ldap_version>3</ldap_version>
<server_side>0</server_side>
<auth_type>LDAP-StartTLS</auth_type>
<logon_fmt>Principalname</logon_fmt>
<logon_domain></logon_domain>
<kerberos_domain></kerberos_domain>
<kerberos_kdc></kerberos_kdc>
<kcd_username></kcd_username>
<max_failed_auths>0</max_failed_auths>
<reset_fail_tout>60</reset_fail_tout>
<unblock_tout>1800</unblock_tout>
<sess_tout_type>idle time</sess_tout_type>
<sess_tout_idle_pub>900</sess_tout_idle_pub>
<sess_tout_duration_pub>1800</sess_tout_duration_pub>
<sess_tout_idle_priv>900</sess_tout_idle_priv>
<sess_tout_duration_priv>28800</sess_tout_duration_priv>
<cert_check_asi>0</cert_check_asi>
</Domain>
</Data>
</Success>
</Response>
```

```
curl -k
"https://bal:1fourall@20.200.25.100/access/deldomain?domain=clientdomainname"
```

Situation after delete:

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

After executing the command to delete the **clientdomainname** SSO domain, if a **showdomain** command is run for **clientdomainname**, an error will display saying the **Domain does not exist**.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="422" code="fail">
<Error>Domain does not exist</Error>
</Response>
```

2.1.19 Add a Custom SSO Image Set

The following command uploads a custom SSO image set file called **Custom_Image_Set.tar**.

This command requires a file upload. In this example, the cURL **-X POST** and**--data-binary** options are used to specify the file to be uploaded to the LoadMaster:

Situation before upload:

The **listssoimages** command can be used to list any existing custom SSO image sets that are currently installed on the LoadMaster:

```
curl -k "https://bal:1fourall@20.200.25.100/access/listssoimages"
```

Response:

```
<Response stat="200" code="ok">
<Success>
<Data>
<Imagesets></Imagesets>
</Data>
</Success>
</Response>
```

The following command uploads the custom SSO image set:

```
curl -X POST --data-binary "@Custom_Image_Set.tar" -k
"https://bal:1fourall@20.200.25.100/access/ssoimages"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Custom image sets installed</Success>
</Response>
```

2.1.20 Delete a Custom SSO Image Set

The following example deletes the **IMAGESETNAME_1** custom SSO image set.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

Situation before delete:

Before deleting the custom SSO image set, the listssoimages command can be run to show the existing custom SSO image sets.<?xml version="1.0" encoding="ISO-8859-1"?>

<Response stat="200" code="ok">

<Success><Data><Imagesets>

<Imageset>

<Name>IMAGESETNAME_1</Name>

<Installed>Mon Jan 12 17:23:25 2015</Installed>

<Info></Info>

</Imageset>

</Imagesets>

</Data>

</Success>

</Response>

curl -k "https://bal:1fourall@20.200.25.100/access/delssoimage?name=IMAGESETNAME_1"

Situation after delete:

<?xml version="1.0" encoding="ISO-8859-1"?>

<Response stat="200" code="ok">

<Success><Data><Imagesets>

</Imagesets>

</Data>

</Success>

</Response>

2.1.21 List WAF Custom Rules

The following command displays a list of the installed WAF rules:

curl -k "https://bal:1fourall@20.200.25.100/access/listwafrules"

Response:

<Response stat="200" code="ok">

<Success>

<Data>

<Rules>

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Inactive1>Generic/ip_reputation</Inactive1>
<Inactive2>Generic/malware_detection</Inactive2>
<Inactive3>Generic/botnet_attacks</Inactive3>
<Inactive4>Generic/creditcard_known</Inactive4>
<Inactive5>Generic/creditcard_track_pan</Inactive5>
<Inactive6>ApplicationSpecific/cpanel_attacks</Inactive6>
<Inactive7>ApplicationSpecific/drupal_attacks</Inactive7>
<Inactive8>ApplicationSpecific/joomla_attacks</Inactive8>
<Inactive9>ApplicationSpecific/modx_attacks</Inactive9>
<Inactive10>ApplicationSpecific/netcat_attacks</Inactive10>
<Inactive11>ApplicationSpecific/oscommerce_attacks</Inactive11>
<Inactive12>ApplicationSpecific/phpbb_attacks</Inactive12>
<Inactive13>ApplicationSpecific/sharepoint_attacks</Inactive13>
<Inactive14>ApplicationSpecific/typo3_attacks</Inactive14>
<Inactive15>ApplicationSpecific/vbulletin_attacks</Inactive15>
<Inactive16>ApplicationSpecific/wordpress_attacks</Inactive16>
<Inactive17>ApplicationSpecific/owa_attacks</Inactive17>
<Inactive18>ApplicationSpecific/iis_attacks</Inactive18>
<Inactive19>ApplicationGeneric/lfi_attacks</Inactive19>
<Inactive20>ApplicationGeneric/rfi_attacks</Inactive20>
<Inactive21>ApplicationGeneric/sqli_attacks</Inactive21>
<Inactive22>ApplicationGeneric/xss_attacks</Inactive22>
</Rules>
</Data>
</Success>
</Response>
```

2.1.22 Upload a WAF Custom Rule

The following command uploads a custom WAF rule fule called **CustomRules.conf**:

```
curl -X POST --data-binary "@CustomRules.conf" -k
"https://bal:1fourall@20.200.25.100/access/addwafcustomrule?filename=CustomRu
les.conf"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Custom rule(s) installed</Success>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
</Response>
```

2.1.23 Download a WAF Custom Rule

The following command downloads a custom rule file called **Custom Rules**:

```
curl -o DownloadedCustomRules.conf -k
"https://bal:1fourall@20.200.25.100/access/downloadwafcustomrule?filename=Cus
tomRules"
```

This command downloads one file at a time. One file could contain multiple rules.

2.1.24 Delete a WAF Custom Rule

The following command deletes a WAF custom rule called **CustomRules**.

> Only one rule can be deleted at a time.

Situation before delete:

To view a list of installed rules, run the **listwafrules** command.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Rules><Inactive1>Custom/</Inactive1>
<Inactive2>Custom/CustomRules</Inactive2>
<Inactive3>Generic/ip_reputation</Inactive3>
<Inactive4>Generic/malware_detection</Inactive4>
.
.
.
```

> The file extension is not used in the **filename** parameter in this command.

```
curl -k
"https://bal:1fourall@20.200.25.100/access/delwafcustomrule?filename=CustomRu
les"
```

Situation after delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><Rules><Inactive1>Custom/</Inactive1>
<Inactive2>Generic/ip_reputation</Inactive2>
<Inactive3>Generic/malware_detection</Inactive3>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

.
.
.

2.2 Statistics

2.2.1 Show stats

The following command displays a number of LoadMaster statistics such as connections per second and bits per second:

```
curl -k "https://bal:1fourall@20.200.25.100/access/stats"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><VStotals>
<ConnsPerSec>0</ConnsPerSec>
<BitsPerSec>0</BitsPerSec>
<BytesPerSec>0</BytesPerSec>
<PktsPerSec>0</PktsPerSec>
</VStotals>
<Vs>
<VSAddress>20.200.25.94</VSAddress>
<VSPort>80</VSPort>
<VSProt>tcp</VSProt>
<Index>14</Index>
<ErrorCode>0</ErrorCode>
<Enable>1</Enable>
<TotalConns>0</TotalConns>
<TotalPkts>0</TotalPkts>
<TotalBytes>0</TotalBytes>
<TotalBits>0</TotalBits>
<ActiveConns>0</ActiveConns>
<BytesRead>0</BytesRead>
<BytesWritten>0</BytesWritten>
<ConnsPerSec>0</ConnsPerSec>
<WafEnable>0</WafEnable>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
</Vs>
<Vs>
<VSAddress>20.200.25.99</VSAddress>
<VSPort>80</VSPort>
<VSProt>tcp</VSProt>
<Index>13</Index>
<ErrorCode>0</ErrorCode>
<Enable>1</Enable>
<TotalConns>0</TotalConns>
<TotalPkts>0</TotalPkts>
<TotalBytes>0</TotalBytes>
<TotalBits>0</TotalBits>
<ActiveConns>0</ActiveConns>
<BytesRead>0</BytesRead>
<BytesWritten>0</BytesWritten>
<ConnsPerSec>0</ConnsPerSec>
<WafEnable>0</WafEnable>
</Vs>
.
.
.
```

2.3 Rules & Checking

2.3.1 Add a content rule to the system

The following command adds a content rule to the LoadMaster:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/addrule?name=contentrule&pattern=p
attern"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><MatchContentRule>
<Name>contentrule</Name>
<Pattern>pattern</Pattern>
<MatchType>Regex</MatchType>
<AddHost>N</AddHost>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Negate>N</Negate>
<CaseIndependent>N</CaseIndependent>
<IncludeQuery>N</IncludeQuery>
<Header></Header>
<MustFail>N</MustFail>
</MatchContentRule>
</Data>
</Success>
</Response>
```

2.3.2 Modify a Content Rule

The following command modifies an existing rule called **contentrule** by changing the **matchtype** to **prefix** and enabling the option to ignore case:

> Reference the rule by its name.

```
curl -k
"https://bal:1fourall@20.200.25.100/access/modrule?name=contentrule&pattern=p
attern&matchtype=prefix&nocase=Y"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><MatchContentRule>
<Name>contentrule</Name>
<Pattern>pattern</Pattern>
<MatchType>prefix</MatchType>
<AddHost>N</AddHost>
<Negate>N</Negate>
<CaseIndependent>Y</CaseIndependent>
<IncludeQuery>N</IncludeQuery>
<Header></Header>
<MustFail>N</MustFail>
</MatchContentRule>
</Data>
</Success>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.3.3 Delete Rule

The following command deletes the rule named **contentrule**.

Situation before delete:

Before deleting the content rule, the **showrule** command can be run to display a list of currently installed rules.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><MatchContentRule>
<Name>contentrule</Name>
<Pattern>pattern</Pattern>
<MatchType>Regex</MatchType>
<AddHost>N</AddHost>
<Negate>N</Negate>
<CaseIndependent>N</CaseIndependent>
<IncludeQuery>N</IncludeQuery>
<Header></Header>
<MustFail>N</MustFail>
</MatchContentRule>
</Data>
</Success>
</Response>
```

```
curl -k "https://bal:1fourall@20.200.25.100/access/delrule?name=contentrule"
```

Situation after delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data></Data>
</Success>
</Response>
```

2.3.4 List the Content Rules Assigned to a Virtual Service

The **listvs** command shows the content rules assigned to a Virtual Service:

```
curl -k "https://bal:1fourall@20.200.25.100/access/listvs"
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

Response:

```
<Response stat="200" code="ok">
<Success>
<Data>
<VS>
<Status>Down</Status>
<Index>1</Index>
<VSAddress>20.200.25.250</VSAddress>
<VSPort>80</VSPort>
<NickName>Test</NickName>
<Enable>Y</Enable>
<SSLReverse>N</SSLReverse>
<SSLReencrypt>N</SSLReencrypt>
<Intercept>Y</Intercept>
<InterceptOpts>
<Opt>opnormal</Opt>
<Opt>auditnone</Opt>
<Opt>reqdatadisable</Opt>
<Opt>resdatadisable</Opt>
</InterceptOpts>
<AlertThreshold>0</AlertThreshold>
<Transactionlimit>0</Transactionlimit>
<Transparent>Y</Transparent>
<ServerInit>0</ServerInit>
<StartTLSMode>0</StartTLSMode>
<Idletime>0</Idletime>
<Cache>N</Cache>
<Compress>N</Compress>
<Verify>0</Verify>
<UseforSnat>N</UseforSnat>
<ForceL7>Y</ForceL7>
<ClientCert>0</ClientCert>
<ErrorCode>0</ErrorCode>
<CheckUse1.1>N</CheckUse1.1>
<MatchLen>0</MatchLen>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<CheckUseGet>0</CheckUseGet>
<SSLRewrite>0</SSLRewrite>
<VStype>http</VStype>
<FollowVSID>0</FollowVSID>
<Protocol>tcp</Protocol>
<Schedule>rr</Schedule>
<CheckType>http</CheckType>
<PersistTimeout>0</PersistTimeout>
<CheckPort>0</CheckPort>
<NRules>0</NRules>
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>1</NPreProcessRules>
<PreProcessRules>
<Name>test</Name>
</PreProcessRules>
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
<MasterVS>0</MasterVS>
<MasterVSID>0</MasterVSID>
<AddVia>0</AddVia>
<TlsType>N</TlsType>
<NeedHostName>N</NeedHostName>
<OCSPVerify>N</OCSPVerify>
<NumberOfRSs>0</NumberOfRSs>
</VS>
</Data>
</Success>
</Response>
```

2.3.5 Add a Content Rule to a Virtual Service

The following command adds the rule **contentrule** to the **20.200.25.94** Virtual Service:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/addprerule?vs=20.200.25.94&port=80
&prot=tcp&rule=contentrule"
```

Response:

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Command completed ok</Success>
</Response>
```

2.3.6 Unassign a Content Rule from a Virtual Service

The following command unassigns the **contentrule** rule from the **20.200.25.94** Virtual Service:

Situation before delete:

A **listvs** command can be run before deleting to view the content rules that are assigned to the Virtual Services.

```
.
.
.
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>1</NPreProcessRules>
<PreProcessRules>
<Name>contentrule</Name>
</PreProcessRules>
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
.
.
.
```

```
curl -k
"https://bal:1fourall@20.200.25.100/access/delprerule?vs=20.200.25.94&port=80
&prot=tcp&rule=contentrule"
```

Situation after delete:

```
.
.
.
<NRequestRules>0</NRequestRules>
<NResponseRules>0</NResponseRules>
<NPreProcessRules>0</NPreProcessRules>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<EspEnabled>N</EspEnabled>
<InputAuthMode>0</InputAuthMode>
<OutputAuthMode>0</OutputAuthMode>
.
.
.
```

2.3.7 Set Retry Interval

A health check is performed on each Real Server. The retry interval defines the amount of time (in seconds) between checks. The following command sets the **RetryInterval** to **12** seconds:

```
curl -k "https://bal:1fourall@20.200.25.100/access/modhealth?RetryInterval=12"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><RetryInterval>12</RetryInterval>
<Timeout>4</Timeout>
<RetryCount>2</RetryCount>
</Data>
</Success>
</Response>
```

2.4 Certificates

2.4.1 Add a Certificate

The following command uploads a certificate called **cert.pem** to the LoadMaster:

```
curl -X POST --data-binary "@cert.pem" -k
"https://bal:1fourall@20.200.25.100/access/addcert?cert=acert"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Certificate Successfully Installed</Success>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

2.4.2 Delete a Certificate

> The following command deletes a certificate called **acert** from the LoadMaster. Reference the certificate by name.

```
curl -X POST --data-binary "@cert.pem" -k
"https://bal:1fourall@20.200.25.100/access/delcert?cert=acert"
```

Response:

```
<Response stat="200" code="ok">
<Success>Command completed ok</Success>
</Response>
```

2.4.3 Backup a Certificate

The following command downloads a password-protected backup file containing all of the certificates that exist on the LoadMaster:

```
curl -o backedupcert -k
"https://bal:1fourall@20.200.25.100/access/backupcert?password=password"
```

> The password parameter is mandatory.

Response:

<BackupFileDownloads>

2.4.4 Restore Certificates

The following command restores Virtual Service certificates from a backup file called **backedupcert**:

```
curl -X POST --data-binary "@backedupcert" -k
"https://bal:1fourall@20.200.25.100/access/restorecert?password=password&type
=vs"
```

The **type** parameter has three possible values:

- **Full** - All Virtual Service and intermediate certificates
- **Third** - Intermediate certificates only
- **Vs** - Virtual Service certificates only

Response:

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Certificates Restored</Success>
</Response>
```

2.5 GEO

2.5.1 Add an FQDN

The following command adds an **FQDN** called **addedfqdn.com** which has default settings:

```
curl -k "https://bal:1fourall@20.200.25.100/access/addfqdn?fqdn=addedfqdn.com"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Added FQDN addedfqdn.com</Success>
</Response>
```

Display the FQDN Settings

To display the FQDN settings, run the **showFQDN** command:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/showfqdn?fqdn=addedfqdn.com"
```

Response:

```
<Response stat="200" code="ok">
<Success>
<Data>
<fqdn>
<Status>Down</Status>
<FullyQualifiedDomainName>addedfqdn.com.</FullyQualifiedDomainName>
<SelectionCriteria>rr</SelectionCriteria>
<FailTime>0</FailTime>
<SiteRecoveryMode>auto</SiteRecoveryMode>
<Mapping>0</Mapping>
<failover>N</failover>
</fqdn>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
</Data>
</Success>
</Response>
```

2.5.2 Modify an FQDN

The following command modifies the existing **addedfqdn.com** FQDN to set the **selectioncriteria** to Weighted Round Robin (WRR):

```
curl -k
"https://bal:1fourall@20.200.25.100/access/modfqdn?fqdn=addedfqdn.com&selecti
oncriteria=wrr"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><fqdn><Status>Up</Status>
<FullyQualifiedDomainName>addedfqdn.com.</FullyQualifiedDomainName>
<SelectionCriteria>wrr</SelectionCriteria>
<FailTime>0</FailTime>
<SiteRecoveryMode>auto</SiteRecoveryMode>
<Mapping>0</Mapping>
<failover>N</failover>
</fqdn></Data>
</Success>
</Response>
```

2.5.3 Add an IP Address to an FQDN

The following command adds an IP address (**2.2.2.2**) to the **addedfqdn.com** FQDN:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/addmap?fqdn=addedfqdn.com&ip=2.2.2
.2"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Added Map 2.2.2.2 to FQDN addedfqdn.com.</Success>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
The details of the IP address map can be seen by running the showFQDN
command.<Response stat="200" code="ok">
<Success>
<Data>
<fqdn>
<Status>Up</Status>
<FullyQualifiedDomainName>addedfqdn.com.</FullyQualifiedDomainName>
<SelectionCriteria>rr</SelectionCriteria>
<FailTime>0</FailTime>
<SiteRecoveryMode>auto</SiteRecoveryMode>
<Mapping>1</Mapping>
<failover>N</failover>
<Map>
<Status>Up</Status>
<Index>1</Index>
<IPAddress>2.2.2.2</IPAddress>
<Checker>icmp</Checker>
<CheckerPort>0</CheckerPort>
<Weight>1000</Weight>
<Enable>Y</Enable>
<LocationLatitude>0.00000000</LocationLatitude>
<LocationLongitude>0.00000000</LocationLongitude>
</Map>
</fqdn>
</Data>
</Success>
</Response>
```

2.5.4 Modify the IP Address of an FQDN

The following command edits the **2.2.2.2** map settings in the **addedfqdn.com** FQDN by changing the **checker** to **icmp**:

> Provide the IP address and the FQDN name that is belongs to.

```
curl -k
"https://bal:1fourall@20.200.25.100/access/modmap?fqdn=addedfqdn.com&ip=2.2.2
.2&checker=icmp"
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><fqdn><Status>Up</Status>
<FullyQualifiedDomainName>addedfqdn.com.</FullyQualifiedDomainName>
<SelectionCriteria>rr</SelectionCriteria>
<FailTime>0</FailTime>
<SiteRecoveryMode>auto</SiteRecoveryMode>
<Mapping>2</Mapping>
<failover>N</failover>
<Map><Status>Up</Status>
<Index>2</Index>
<IPAddress>2.2.2.2</IPAddress>
<Checker>icmp</Checker>
<CheckerPort>0</CheckerPort>
<Weight>1000</Weight>
<Enable>Y</Enable>
<LocationLatitude>0.00000000</LocationLatitude>
<LocationLongitude>0.00000000</LocationLongitude>
</Map></fqdn></Data>
</Success>
</Response>
```

2.5.5 Delete an IP Address from an FQDN

The following command deletes the **2.2.2.2** IP address map from the **addedfqdn.com** FQDN.

Situation before delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><fqdn><Status>Up</Status>
<FullyQualifiedDomainName>addedfqdn.com.</FullyQualifiedDomainName>
<SelectionCriteria>rr</SelectionCriteria>
<FailTime>0</FailTime>
<SiteRecoveryMode>auto</SiteRecoveryMode>
<Mapping>1</Mapping>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<failover>N</failover>
<Map><Status>Up</Status>
<Index>1</Index>
<IPAddress>2.2.2.2</IPAddress>
<Checker>icmp</Checker>
<CheckerPort>0</CheckerPort>
<Weight>1000</Weight>
<Enable>Y</Enable>
<LocationLatitude>0.00000000</LocationLatitude>
<LocationLongitude>0.00000000</LocationLongitude>
</Map></fqdn></Data>
</Success>
</Response>
```

```
curl -k
"https://bal:1fourall@20.200.25.100/access/delmap?fqdn=addedfqdn.com&ip=2.2.2
.2"
```

Situation after delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><fqdn><Status>Down</Status>
<FullyQualifiedDomainName>addedfqdn.com.</FullyQualifiedDomainName>
<SelectionCriteria>rr</SelectionCriteria>
<FailTime>0</FailTime>
<SiteRecoveryMode>auto</SiteRecoveryMode>
<Mapping>0</Mapping>
<failover>N</failover>
</fqdn></Data>
</Success>
</Response>
```

2.5.6 Delete an FQDN

The following command deletes the **addedfqdn.com** FQDN.

Situation before delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Response stat="200" code="ok">
<Success><Data><fqdn><FullyQualifiedDomainName>addedfqdn.com.</FullyQualifiedDomainName>
<SelectionCriteria>rr</SelectionCriteria>
<FailTime>0</FailTime>
<SiteRecoveryMode>auto</SiteRecoveryMode>
<Mapping>0</Mapping>
<failover>N</failover>
</fqdn></Data>
</Success>
</Response>
```

```
curl -k "https://bal:1fourall@20.200.25.100/access/delfqdn?fqdn=addedfqdn.com"
```

Response:

```
<Response stat="200" code="ok">
<Success>Deleted FQDN addedfqdn.com.</Success>
</Response>
```

Situation after delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="404" code="fail">
<Error>No geo data found</Error>
</Response>
```

2.5.7 Add a Cluster

The following command adds a cluster called **addedcluster** with an IP address of **3.3.3.3**. A cluster requires an IP address and a name.

```
curl -k
"https://bal:1fourall@20.200.25.100/access/addcluster?ip=3.3.3.3&name=addedcl
uster"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Cluster 3.3.3.3 added</Success>
</Response>
```

To view the cluster, run the listclusters command.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Response stat="200" code="ok">
<Success>
<Data>
<cluster>
<Index>1</Index>
<Name>addedcluster</Name>
<ClusterVSAddress/>
<IPAddress>3.3.3.3</IPAddress>
<Checker>none</Checker>
<CheckerPort>0</CheckerPort>
<Type>default</Type>
<Enable>Y</Enable>
<LocationLatitude>0.00000000</LocationLatitude>
<LocationLongitude>0.00000000</LocationLongitude>
</cluster>
</Data>
</Success>
</Response>
```

2.5.8 Modify a Cluster

The following command modifies the cluster check type:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/modcluster?ip=3.3.3.3&checker=icmp"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><cluster><Status>Up</Status>
<Index>1</Index>
<Name>addedcluster</Name>
<ClusterVSAddress></ClusterVSAddress><IPAddress>3.3.3.3</IPAddress>
<Checker>icmp</Checker>
<CheckerPort>0</CheckerPort>
<Type>default</Type>
<Enable>Y</Enable>
<LocationLatitude>0.00000000</LocationLatitude>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

<LocationLongitude>0.00000000</LocationLongitude>
</cluster></Data>
</Success>
</Response>

2.5.9 Modify a Cluster Location

The following command modifies the existing **3.3.3.3** cluster by setting the longitude and latitude to 43.3442deg N, 6.2675deg W. Values must be given in seconds, with a negative value for south or west:

```
curl -k
"https://bal:2fourall@10.154.25.100/access/clustchangeloc?ip=3.3.3.3&latsecs=
156039&longsecs=-22563"
```

Response:

<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>Cluster location updated</Success>
</Response>

2.5.10 Delete a Cluster

The following command deletes the **3.3.3.3** cluster.

Situation before delete:

<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><cluster><Index>1</Index>
<Name>addedcluster</Name>
<ClusterVSAddress></ClusterVSAddress><IPAddress>3.3.3.3</IPAddress>
<Checker>none</Checker>
<CheckerPort>0</CheckerPort>
<Type>default</Type>
<Enable>Y</Enable>
<LocationLatitude>0.00000000</LocationLatitude>
<LocationLongitude>0.00000000</LocationLongitude>
</cluster></Data>
</Success>
</Response>

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
curl -k "https://bal:1fourall@20.200.25.100/access/delcluster?ip=3.3.3.3"
```

Response:

```
<Response stat="200" code="ok">
<Success>Cluster deleted</Success>
</Response>
```

Situation after delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="404" code="fail">
<Error>No geo data found</Error>
</Response>
```

2.5.11 Modify the GEO Miscellaneous Parameters

The following command updates the **checkinterval** to **60** seconds and the connection timeout to **10** seconds:

```
curl -k
"https://bal:1fourall@20.200.25.100/access/modparams?checkinterval=60&conntim
eout=10"
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><soa><TTL>10</TTL>
<persist>0</persist>
</soa><check><CheckInterval>60</CheckInterval>
<ConnTimeout>10</ConnTimeout>
<RetryAttempts>2</RetryAttempts>
</check></Data>
</Success>
</Response>
```

2.5.12 Add an IP Range

The following command adds an IP range of **4.4.0.0** with a **mask** of **16**:

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

The **mask** parameter is the netmask.

curl -k "https://bal:1fourall@20.200.25.100/access/addip?ip=4.4.0.0&mask=16"
Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>IP range added</Success>
</Response>
```

Situation after Add:

To show the default settings of the IP range just added, run the **listips** command.

```
<Response stat="200" code="ok">
<Success>
<Data>
<IPAddress>
<Index>1</Index>
<Used>Y</Used>
<Ip>4.4.0.0</Ip>
<IPAddress>4.4.0.0</IPAddress>
<Mask>16</Mask>
<Country>-1</Country>
<IsCustom>N</IsCustom>
<CustomLocation>0</CustomLocation>
</IPAddress>
</Data>
</Success>
</Response>
```

2.5.13 Modify an IP Location

The following command modifies the latitude and longitude of the **4.4.0.0** IP range:

The **lat** and **long** parameters are in seconds.

curl -k "https://bal:1fourall@20.200.25.100/access/modiploc?ip=4.4.0.0&lat=360&long=360"

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

Response:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success>IP range location updated</Success>
</Response>
```

Situation after Modification

To view the IP range settings, run a **listips** command:

```
<Response stat="200" code="ok">
<Success>
<Data>
<IPAddress>
<Index>1</Index>
<Used>Y</Used>
<Ip>4.4.0.0</Ip>
<IPAddress>4.4.0.0</IPAddress>
<Mask>16</Mask>
<Latitude>360</Latitude>
<Longitude>360</Longitude>
<Country>-1</Country>
<IsCustom>N</IsCustom>
<CustomLocation>0</CustomLocation>
</IPAddress>
</Data>
</Success>
</Response>
```

2.5.14 Delete an IP Range

The following command deletes the IP range **4.4.0.0**:

Situation before delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="200" code="ok">
<Success><Data><IPAddress><Index>1</Index>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
<Used>Y</Used>
<Ip>4.4.0.0</Ip>
<IPAddress>4.4.0.0</IPAddress>
<Mask>16</Mask>
<Country>-1</Country>
<IsCustom>N</IsCustom>
<CustomLocation>0</CustomLocation>
</IPAddress></Data>
</Success>
</Response>
```

curl -k "https://bal:1fourall@20.200.25.100/access/delip?ip=4.4.0.0"

Situation after delete:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<Response stat="404" code="fail">
<Error>No geo data found</Error>
</Response>
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

3 Basic Scripting Examples

The following simple script examples show how the API can be used to automate certain tasks.

> These examples are shell scripts, however any language with HTTP capabilities can be used.

The examples below contain variables rather than values. Variables are preceded by a dollar sign (**$**). For example:

- **$1** - This variable is set to the LoadMaster IP address, for example **20.200.25.100**.
- **$2** - This variable is set to the username, for example **bal**.
- **$3** - This variable is set to the password, for example **1fourall**.

3.1 Shell Script Example to Add Multiple Virtual Services with Default Settings

The following example adds multiple Virtual Services with default settings:

> The first five arguments are: LoadMaster IP address, username, password, port and protocol, followed by the addresses of the Virtual Services to add, for example **bash addvs.sh 20.200.50.50 bal 1fourall 80 tcp 20.200.50.10 20.200.50.11 ...**

```
for var in "${@:6}"
do
   curl -k "https://$2:$3@$1/access/addvs?vs=$var&port=$4&prot=$5"
done
```

3.2 Shell Script Example to Delete Multiple Basic Virtual Services

The following example deletes multiple Virtual Services with default settings:

```
for var in "${@:6}"
do
   curl -k "https://$2:$3@$1/access/delvs?vs=$var&port=$4&prot=$5"
done
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

3.3 Shell Script Example to Modify the Same Parameter on Multiple Virtual Services

The following example modifies the same parameter on multiple Virtual Services at the same time.

> The Virtual Service index must be used in this case.

```
for var in "${@:6}"
do
   curl -k "https://$2:$3@$1/access/modvs?vs=$var&$4=$5"
done
```

3.4 Shell Script Example to Add Multiple FQDNs

The following example adds multiple FQDNs:

```
for var in "${@:4}"
do
   curl -k "https://$2:$3@$1/access/addfqdn?fqdn=$var"
done
```

3.5 Shell Script Example to Add Multiple IP Addresses to an FQDN

The following example adds multiple IP addresses to an FQDN:

```
for var in "${@:5}"
do
   curl -k "https://$2:$3@$1/access/addmap?fqdn=$4&ip=$var"
done
```

3.6 Shell Script Example to Extract the SubVSs Index from one Command and Use in Another

When running commands on SubVSs, the SubVS index can be used to identify the relevant SubVS to run the command on. An example of how to get the SubVS index is below:

```
subvsindex=$(curl -k
"https://$2:$3@$1/access/modvs?vs=$4&port=$5&prot=$6&createsubvs=" | xpath
Response/Success/Data/SubVS/VSIndex/"text()")
```

The **subvsindex** variable can then be used in a command, for example:

```
curl -k https://$2:$3@$1/access/modvs?vs=$subvsindex&nickname=newnickname
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

4 Microsoft Exchange 2013 HTTPS Offloaded Example

This script replicates the same configuration and settings that would be applied if the Exchange 2013 Kemp template had been used to configure a Virtual Service..

A file called **exchange.sh** is run which contains all of the information below. The variables are set as follows:

- **$1** - The username (**bal**)
- **$2** - The password (**1fourall**)
- **$3** - The LoadMaster IP address (**20.200.50.50**)
- **$4** - The IP address of the Virtual Service (**20.200.50.200**)

A redirect Virtual Service called **Exchange HTTPS Offloaded - HTTPS Redirect** is created.

Another Virtual Service called **Exchange HTTPS Offloaded** is also created.

sh exchange.sh bal 1fourall 20.200.50.50 20.200.50.200

```
#
# Exchange 2013 HTTPS Offloaded
#
#Redirect Virtual Service
curl -k -u $1:$2
"https://$3/access/addvs?vs=$4&port=80&prot=tcp&Nickname=Exchange%202013%20HT
TPS%20Offloaded%20-%20HTTP%20Redirect&forceL7=1&errorcode=302&errorurl=https:
\/\/%25h%25s&checktype=none"
#Main Virtual Service
curl -k -u $1:$2
"https://$3/access/addvs?vs=$4&port=443&prot=tcp&Nickname=Exchange%202013%20H
TTPS%20Offloaded&Enable=Y&ForceL7=Y&SSLAcceleration=Y&SSLReverse=N&SSLReencry
pt=N&Intercept=N&Transparent=Y&Schedule=rr&IdleTime=1800&CheckUse1.1=N&CheckT
ype=http"
#
# Exchange 2013 HTTPS Offloaded - ActiveSync
#
#Counter to increment arrays for returned SubVS and Real Server indices
counter=0;
#Find the VSIndex and the RsIndex of the first subvs created and store in
arrays
subvsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/modvs?vs=$4&port=443&prot=tcp&createsubvs=" | xpath
Response/Success/Data/SubVS/VSIndex/"text()")
rsindexarray[$counter]=$(curl -k
"https://$1:$2@$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS/RsIndex/"text()")
#echo "Sub VS index is $counter"
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
#
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&nickname=Exchange%202013%20HTTPS%20Offloaded%20-%20ActiveSync&For
ward=nat&Weight=1000&Limit=0&Enable=Y"
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&CheckPort=443&CheckUse1.1=Y&CheckURL=/microsoft-server-
activesync/healthcheck.htm&CheckType=https"
#
# Exchange 2013 HTTPS Offloaded - Autodiscover
#
let counter=$counter+1
curl -k -u $1:$2
"https://$3/access/modvs?vs=$4&port=443&prot=tcp&createsubvs="
#Get indices
subvsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/VSIndex/"text()")
rsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/RsIndex/"text()")
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&nickname=Exchange%202013%20HTTPS%20Offloaded%20-%20Autodiscover&F
orward=nat&Weight=1000&Limit=0&Enable=Y"
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&CheckPort=443&CheckUse1.1=Y&CheckURL=/autodiscover/healthcheck.ht
m&CheckType=https"
#
# Exchange 2013 HTTPS Offloaded - ECP
#
let counter=$counter+1
curl  -k -u $1:$2
"https://$3/access/modvs?vs=$4&port=443&prot=tcp&createsubvs="
#Get indices
subvsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/VSIndex/"text()")
rsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/RsIndex/"text()")
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&nickname=Exchange%202013%20HTTPS%20Offloaded%20-%20ECP&Forward=na
t&Weight=1000&Limit=0&Enable=Y"
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&CheckPort=443&CheckUse1.1=Y&CheckURL=/ecp/healthcheck.htm&CheckTy
pe=https"
#
# Exchange 2013 HTTPS Offloaded - EWS
#
let counter=$counter+1
curl  -k -u $1:$2
"https://$3/access/modvs?vs=$4&port=443&prot=tcp&createsubvs="
#Get indices
subvsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/VSIndex/"text()")
rsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/RsIndex/"text()")

curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
[$counter]}&nickname=Exchange%202013%20HTTPS%20Offloaded%20-%20EWS&Forward=na
t&Weight=1000&Limit=0&Enable=Y"
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&CheckPort=443&CheckUse1.1=Y&CheckURL=/ews/healthcheck.htm&CheckTy
pe=https"
#
# Exchange 2013 HTTPS Offloaded - MAPI
#
let counter=$counter+1
curl  -k -u $1:$2
"https://$3/access/modvs?vs=$4&port=443&prot=tcp&createsubvs="
#Get indices
subvsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/VSIndex/"text()")
rsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/RsIndex/"text()")
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&nickname=Exchange%202013%20HTTPS%20Offloaded%20-%20MAPI&Forward=n
at&Weight=1000&Limit=0&Enable=Y"
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&CheckPort=443&CheckUse1.1=Y&CheckURL=/mapi/healthcheck.htm&CheckT
ype=https"
#
# Exchange 2013 HTTPS Offloaded - OAB
#
let counter=$counter+1
curl  -k -u $1:$2
"https://$3/access/modvs?vs=$4&port=443&prot=tcp&createsubvs="


#Get indices
subvsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/VSIndex/"text()")
rsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/RsIndex/"text()")
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&nickname=Exchange%202013%20HTTPS%20Offloaded%20-%20OAB&Forward=na
t&Weight=1000&Limit=0&Enable=Y"
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&CheckPort=443&CheckUse1.1=Y&CheckURL=/oab/healthcheck.htm&CheckTy
pe=https"
#
# Exchange 2013 HTTPS Offloaded - OWA
#
let counter=$counter+1
curl  -k -u $1:$2
"https://$3/access/modvs?vs=$4&port=443&prot=tcp&createsubvs="
#Get indices
subvsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/VSIndex/"text()")
rsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/RsIndex/"text()")
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&nickname=Exchange%202013%20HTTPS%20Offloaded%20-%20OWA&Forward=na
t&Weight=1000&Limit=0&Enable=Y"
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&CheckPort=443&CheckUse1.1=Y&CheckURL=/owa/healthcheck.htm&CheckTy
pe=https"


#
# Exchange 2013 HTTPS Offloaded - PowerShell
#
let counter=$counter+1
curl  -k -u $1:$2
"https://$3/access/modvs?vs=$4&port=443&prot=tcp&createsubvs="
#Get indices
subvsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/VSIndex/"text()")
rsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/RsIndex/"text()")
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&nickname=Exchange%202013%20HTTPS%20Offloaded%20-%20PowerShell&For
ward=nat&Weight=1000&Limit=0&Enable=Y"
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&CheckPort=443&CheckUse1.1=Y&CheckURL=/powershell&CheckType=https"
#
# Exchange 2013 HTTPS Offloaded - RCP Forward
#
let counter=$counter+1
curl  -k -u $1:$2
"https://$3/access/modvs?vs=$4&port=443&prot=tcp&createsubvs="
#Get indices
subvsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/VSIndex/"text()")
rsindexarray[$counter]=$(curl -k -u $1:$2
"https://$3/access/showvs?vs=$4&port=443&prot=tcp" | xpath
Response/Success/Data/SubVS[last\(\)]/RsIndex/"text()")

curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&nickname=Exchange%202013%20HTTPS%20Offloaded%20-%20RPC&Forward=na
t&Weight=1000&Limit=0&Enable=Y"
curl  -k -u $1:$2 "https://$3/access/modvs?vs=${subvsindexarray
[$counter]}&CheckPort=443&CheckUse1.1=Y&CheckURL=/rpc/healthcheck.htm&CheckTy
pe=https"
```

The script below creates the necessary content rules. If these rules already exist on the LoadMaster, an error will occur.

```
#
# Create the content rules
#
rand=$RANDOM
curl -k -u $1:$2  "https://$3/access/addrule?name=Root_$rand&pattern=/^\/$/"
curl -k -u $1:$2  "https://$3/access/addrule?name=ActiveSync_
$rand&pattern=/^\/microsoft-server-activesync.*/&nocase=1"
curl -k -u $1:$2  "https://$3/access/addrule?name=Autodiscover_
$rand&pattern=/^\/autodiscover.*/&nocase=1"
curl -k -u $1:$2  "https://$3/access/addrule?name=ECP_
$rand&pattern=/^\/ecp.*/&nocase=1"
curl -k -u $1:$2  "https://$3/access/addrule?name=EWS_
$rand&pattern=/^\/ews.*/&nocase=1"
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

```
curl -k -u $1:$2  "https://$3/access/addrule?name=MAPI_
$rand&pattern=/^\/mapi.*/&nocase=1"
curl -k -u $1:$2  "https://$3/access/addrule?name=OAB_
$rand&pattern=/^\/oab.*/&nocase=1"
curl -k -u $1:$2  "https://$3/access/addrule?name=OWA_
$rand&pattern=/^\/owa.*/&nocase=1"
curl -k -u $1:$2  "https://$3/access/addrule?name=PowerShell_
$rand&pattern=/^\/powershell.*/&nocase=1"
curl -k -u $1:$2  "https://$3/access/addrule?name=RPC_
$rand&pattern=/^\/rpc.*/&nocase=1"
curl -k -u $1:$2  "https://$3/access/addrule?name=Redirect_Root_
$rand&type=4&replacement=/owa&pattern="/^\/$/""
#
# Add the rules to the correct Virtual Service
#
#Add the rule to the parent Virtual Service
curl -k -u $1:$2
"https://$1:$2@$3/access/addrequestrule?vs=$4&port=443&prot=tcp&rule=Redirect_
Root_$rand"
#Add rules to the SubVS
curl -k -u $1:$2
"https://$1:$2@$3/access/addrsrule?vs=$4&port=443&prot=tcp&rs=%21${rsindexarr
ay[0]}$&rule=ActiveSync_$rand"
curl -k -u $1:$2
"https://$1:$2@$3/access/addrsrule?vs=$4&port=443&prot=tcp&rs=%21${rsindexarr
ay[1]}&rule=Autodiscover_$rand"
curl -k -u $1:$2
"https://$1:$2@$3/access/addrsrule?vs=$4&port=443&prot=tcp&rs=%21${rsindexarr
ay[2]}&rule=ECP_$rand"
curl -k -u $1:$2
"https://$1:$2@$3/access/addrsrule?vs=$4&port=443&prot=tcp&rs=%21${rsindexarr
ay[3]}&rule=EWS_$rand"
curl -k -u $1:$2
"https://$1:$2@$3/access/addrsrule?vs=$4&port=443&prot=tcp&rs=%21${rsindexarr
ay[4]}&rule=MAPI_$rand"
curl -k -u $1:$2
"https://$1:$2@$3/access/addrsrule?vs=$4&port=443&prot=tcp&rs=%21${rsindexarr
ay[5]}&rule=OAB_$rand"
curl -k -u $1:$2
"https://$1:$2@$3/access/addrsrule?vs=$4&port=443&prot=tcp&rs=%21${rsindexarr
ay[6]}&rule=OWA_$rand"
curl -k -u $1:$2
"https://$1:$2@$3/access/addrsrule?vs=$4&port=443&prot=tcp&rs=%21${rsindexarr
ay[7]}&rule=PowerShell_$rand"
curl -k -u $1:$2
"https://$1:$2@$3/access/addrsrule?vs=$4&port=443&prot=tcp&rs=%21${rsindexarr
ay[8]}&rule=RPC_$rand"
```


© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

References

Unless otherwise specified, the following documents can be found at http://www.kemptechnologies.com/documentation.

RESTful API, Interface Description

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.

Last Updated Date

This document was last updated on 28 July 2023.

© 2022 Progress Software Corporation and/or one of its subsidiaries or affiliates. All rights reserved.