



**Alteon Application Switch
And
Microsoft SharePoint 2010
Integration Guide**

Version - 1.00

Products:

Alteon Application Switch

Software: Alteon v.27.0

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Microsoft SharePoint 2010 – Integration Guide

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Joint Solution Overview Microsoft SharePoint 2010 High Availability and Acceleration with Radware Application Delivery Solution

The Radware Alteon Application Switch delivers a complete set of availability, acceleration and security services that are dynamically allocated based on user demand without altering network configuration or adding devices. This unique architecture accommodates the future growth requirements of the Microsoft SharePoint Server 2010 solution which are typical for large and medium sized enterprises, while offering cost-effective scalability and full protection of existing investments.

key benefits of the Radware Alteon application Switch and Microsoft SharePoint Server 2010 Joint Solution:

High availability: Microsoft Office SharePoint Server 2010 provides a single, integrated location where employees can efficiently collaborate with team members. Because it has become a business-critical solution for most organizations, users expect the solution to be available for them at any given time; any downtime of the SharePoint solution will most likely translate into revenue loss for the organization. Radware's Alteon guarantees 24x7 availability for the Microsoft SharePoint Server, ensuring that users will be able to access required business documents and share information at any given time. Alteon's advanced health monitoring is capable of detecting any faulty element in the Microsoft SharePoint Server 2010 deployment ensuring that user traffic bypasses the faulty elements and is instead always routed to a health element.

Acceleration and Optimization: Alteon advanced acceleration capabilities, which include SSL offloading, caching, compression and TCP multiplexing, enhance the end-user experience by providing better responsiveness for the Microsoft SharePoint 2010 solution while at the same time reducing the bandwidth and server resources.

- **Alteon SSL offloading** offloads the SSL encoding/decoding CPU-intensive tasks from the SharePoint 2010 web servers to the Alteon Application Switch accelerator hardware, freeing those web servers to handle their core tasks: processing complex business related transactions. By offloading SSL tasks to the Alteon device, organizations may save up-to 20% in CPU usage for each SharePoint 2010 web front-end server.
- **Alteon caching** ensures that static content is served by the Alteon device and not by the SharePoint 2010 web servers, resulting in faster download times of client content while decreasing the load on the SharePoint 2010 web servers. By enabling caching, Alteon decreases the load on the SharePoint 2010 Web servers by up to 40%.
- **Alteon compression** ensures that each page a user views is compressed to a smaller size before the page is sent to the user. This capability has two main benefits for organizations that deploy the SharePoint Server 2010 solution: it provides faster download times for the viewed content, and it reduces the bandwidth required to support the SharePoint Server 2010 solution. Enabling

compression may reduce up to 65% of the bandwidth usage and may improve the page load time by 300%.

CAPEX and OPEX Savings: Alteon creates greater savings and lowers the Total Cost of Ownership (TCO) for organizations that deploy the Microsoft SharePoint 2010 solution. By offloading server processing, Alteon's acceleration capabilities reduce CAPEX by reducing the number of servers as well as reducing the bandwidth consumption required to support the same amount SharePoint's users. In addition, Alteon reduces OPEX by decreasing the management costs of the SharePoint Server 2010 solution through managing all SSL connections and keys centrally in one secured location on the Alteon device. Centrally handling the SSL transactions and keys ensures simpler management and better security for the organization private keys.

Microsoft SharePoint 2010 Overview

Microsoft SharePoint 2010 makes it easier for people to work together. Using SharePoint 2010, your people can set up Web sites to share information with others, manage documents from start to finish, and publish reports to help everyone make better decisions. The capabilities of SharePoint 2010 work together to help your company quickly respond to changing business needs. Using SharePoint 2010, your people can share ideas and expertise, create custom solutions for specific needs, and find the right business information to make better decisions. For IT, SharePoint 2010 helps you cut training and maintenance costs, save time and effort, and focus on higher business priorities.

For more information visit Microsoft SharePoint 2010 web page:
<http://sharepoint.microsoft.com/en-us/Pages/default.aspx>

Radware Alteon Overview

Alteon Application Switch provides breakthrough performance, advanced application acceleration capabilities and on demand scalability needed to effectively meet contemporary network and business needs. Specifically designed for the majority of enterprises and carriers that operate in dynamic, ever-changing environments and face diverse requirements, the Alteon Application Switch provides the extendable throughput they need from 0 to 80Gbps for unparalleled scalability, business availability and performance.

For more information visit Radware Alteon web page:
<http://www.radware.com/Products/ApplicationDelivery/Alteon/default.aspx>

Alteon and Microsoft SharePoint 2010 Solution Architecture

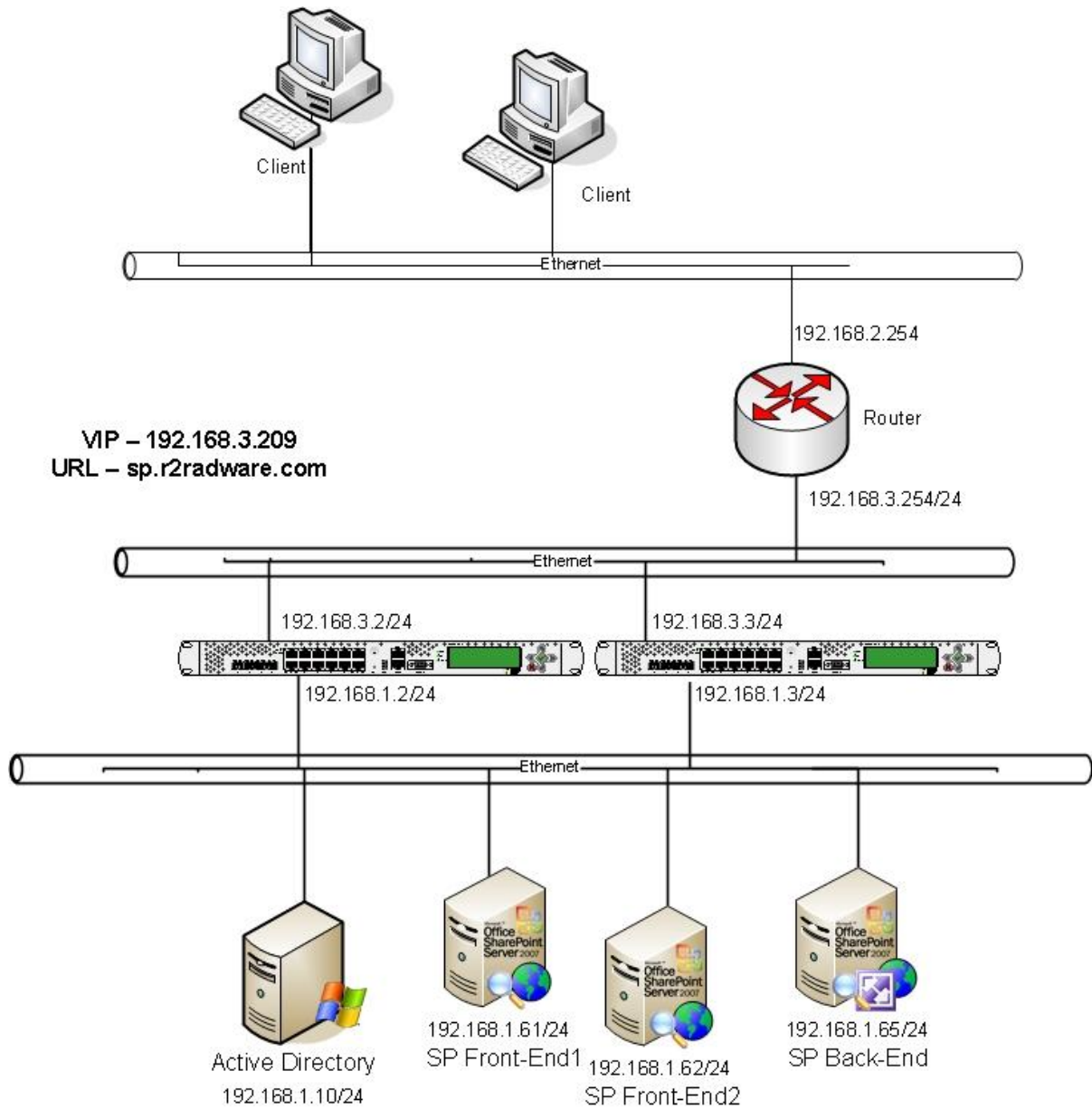


Diagram 1.0 - Alteon and Microsoft SharePoint 2010 Reference Architecture

Important Notes:

1. SharePoint 2010 exposes an internal hostname that has to be exposed as an internal web hostname to remote users accessing the Alteon VIP. For that, SharePoint 2010 should be configured with Alternate mapping addresses. For more information please refer to:
<http://technet.microsoft.com/en-us/sharepoint/ff679917.aspx>, or
[http://technet.microsoft.com/en-us/library/cc288609\(office.12\).aspx](http://technet.microsoft.com/en-us/library/cc288609(office.12).aspx)
2. The use of SSL offloading requires setting an L7 modification rule in the Alteon configuration to translate an internal **http://sp.r2radware.com** URL to an external **https://sp.r2radware.com**. Please see the detailed configuration below.
3. HTTP compression should be activated on the Alteon
4. Persistency mechanism is done by Alteon Insert Cookie mechanism

Active Alteon Configuration

Network configuration

```
/c/port 1
    pvid 204
/c/port 2
    pvid 205
/c/l2/vlan 1
    learn ena
    def 0
/c/l2/vlan 204
    ena
    name "TAG.192.168.3.x"
    learn ena
    def 1
/c/l2/vlan 205
    ena
    name "TAG.192.168.1.x"
    learn ena
    def 2
/c/l2/stg 1/clear
/c/l2/stg 1/add 1 204 205
/c/sys/sshd/ena
/c/sys/sshd/on
/c/l3/if 1
    ena
    ipver v4
```

```
        addr 192.168.3.2
        vlan 204
/c/l3/if 2
    ena
    ipver v4
    addr 192.168.1.2
    vlan 205
/c/l3/gw 1
    ena
    ipver v4
    addr 192.168.3.254
```

VRRP Configuration

```
/c/l3/vrrp/on
/c/l3/vrrp/vr 1
    ena
    ipver v4
    vrid 131
    if 1
    addr 192.168.3.1
    track
        ifs e
        ports e
/c/l3/vrrp/vr 2
    ena
    ipver v4
    vrid 132
    if 2
    addr 192.168.1.1
    track
        ifs e
        ports e
/c/l3/vrrp/vr 6
    ena
    ipver v4
    vrid 136
    if 1
    addr 192.168.3.209
    track
        ifs e
        ports e
/c/l3/vrrp/vrgroup 1
    name ""
```

```
prio 101
add 1
add 2
add 6
ena
track
    ifs e
    ports e
```

Compression Configuration

```
/c/slb/accel/compress
on
/c/slb/accel/compress/comppol 1
name "compression"
ena
```

Caching Configuration

```
/c/slb/accel/caching
on
/c/slb/accel/caching/cachepol 1
name "cache"
ena
```

SSL Configuration

```
/c/slb/ssl/certs/key 3
/c/slb/ssl/certs/import key "3" text
```

-----BEGIN RSA PRIVATE KEY-----

Proc-Type: 4,ENCRYPTED

DEK-Info: DES-EDE3-CBC,721D23C2367E0636

z9ynYR01LouHuhvv9M5ThltWLWrgQCNdhWhn27JRWGvGPWNIbL8kEOYFh
xGFHO97zhZMLTt2G+0IjRNUgkpArNMddHKh2gVjeKow58Wszopo8QlLpUL
Ds/gWQAOzGdzW5jAjxILAF6pWd0dcwHHpktXH9nDePhQdt3v2i+tpyFNTZ
+aB2IjKEkkNXL9Yz2xavAjDHDJv4aH7Txh+r0is/mjP7dN53FwTk4HOSZYSp
/+RsP26bYkoRp4/FAgIjAEIu4PU/kbyK3FmZkJ4/N9Ud/dZQyBi41kd6eKu3v
YzRbcOVIzgwIfn6Tvis/sq+x7eRTJoB3+19knxcecb5FMG5Of7s14twX11PQH
oWaUcDQ0fgNf5EZLrnYhfpWgOqxfuKMe5dHqJCo2/Z8RX5Kf1Dvk6l1DORZ
sSEYmMAI14GsH7i3/0w7c01INvPD4fCcqj3xCXKDKUinG0kTt8Ww1E8EfjAs
Ybv/pFsT0Jr5/wL8Zu4cL7ng+Z2PPgTaaMIejhm2iShC3l1s3rHbJknTxYAKnK
aiGccLFGqhcmEQzReBOWITqz6cLIEhk4WVw0Gqw3Vm6Clx9TEvQHMZNTw

MRqaLAJVobipeOyLUckjnMVuEA80V/L0fNL1t1WMdjbiDPI3xsuyQ/9EQH9sa
gQI1Ie+goWmfv+XybRuPzrGBnGTM50rH42vTHDqIJfLgJWB/EHWFuPmTE
KVB0dIMcw8EI7GzVayh00EqyjSc7TfJ2quIcLB5jTBbLGP9ZPskJiaCBVNomx
s/uoCm356SD8iCJ2qJDT0QkNktH7F9b/dzuKAs+xZsXI4SU2WIsgeciinwZS+
VRI0xOYchJOcQvqXxTLXVxMLwaPEhEaLHXU6LN9Mz62JCFW4EKdiWWLubj
IM9fi/iSLiLiE+R1dJBXxC1bvwrTg08CJwUtkZKLmj647278vuggx0IkjLdfHi83
ZtiM3DGRj3uhtHTga/lGmg61qg2Y+gmc8IM54Z/dQIbpgYdSO0vKbW83h3
nERsPijrV74IDTMnVG6/SJLIzhXFIupkXcq1hJEL9w9ge0DDQPz6M8j26wo0C
BwFa4wEA7b9PREvNjQTFYhiM6EJcRIJYZAU+1dARk0g0q0tgvfD9qEI7nRIDj
xzeVTFk5BY8t/ANW+vXhZsZHk8lll8mkfXNGpJ2JECsa8oGT5n95J+MrL/w6g
dRiqOzthtJ5JBP3WC7PIVFa7pbCzvQMQ+oF4z8zrBiOkki78uwEYiDnQUXNG
yoj2OeVpOoyS6UsiQMZSWLksZ1/VAuOT/f8/IvSJsZjzS28qiOTTyO+sJpLvP
YHG+ghP2a1n2EsAPErdbkZ7WGHZgmnwvf+kWVj9ZUoMRqxhfKQZr1VVxp
fVwPTTNOwDEw2fSsISw5SgIEYYPc7C6q0aECy5Dud1+a2hC9Az4GFtWXgx
fv8NESIcw0teWYTVImkM3kuhYo5oMJSFI2IH3KH6gXvGQINxHAQOVGPea7
GrrFHTkVZ0KXQk4h1C7TV51X1LiP/9C1vlQgGdH84LExhdM27s3YqzHq0vIy
b7P3ogkf7v0c5+8+LNIkqCLeHPsz21l0L7pFIz2g==
-----END RSA PRIVATE KEY-----

```
/c/slb/ssl/certs/srvrcert 3  
/c/slb/ssl/certs/import srvrcert "3" text  
-----BEGIN CERTIFICATE-----
```

MIIGuTCCBaGgAwIBAgIKEXEdIAAAAAAAHjANBgkqhkiG9w0BAQUFADBMM
RMwEQYKCZImiZPyLGBGRYDY29tMRkwFwYKCCZImiZPyLGBGRYJcjJyYW
R3YXJIMRowGAYDVQQDExFyMnJhZHdhcmUtUjJEQy1DQTAeFw0xMTAxMD
UyMjU4MzdaFw0xMzAxMDQyMjU4MzdaMHExCzAJBgNVBAYTAKIMREwDw
YDVQQIEWhUZWwtQXZpdjERMA8GA1UEBxMIIVGVsLUF2aXYxEjAQBGNVBA
oTCVIyUkFEV0FSRTElMAkGA1UECxMCSVQxGzAZBgNVBAMTEm1haWwucj
JyYWR3YXJlLnNvbTCCASIdDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggE
BALJZ8oINWNa2QIRfJXIV3xpc7fNaO8YY3FVA8kqCCc6PtsU6oTI0sPI8a2Toa
dRrTaLgssVsvip1PgqMPvf5Ej9g8FZGOzItggBvXna+B95RJfra5GbeLN7S1P/
1kjreZ18Qi4mTZMo+5vQ/nRkuv2b1Sd4Vbb6pQO6T3dP65sfcP1dZWjCmg
MMLLlrelJvIsB5Cc2jBNkboDrhB2uqfIf8+/zGVGBZi9+37sTQtGjQNBGwQa2
V/oPzOVHow8V/XvcWdSZGKHUr5Q4pccx+p7HAF82DSov50IeKFcpWaIzPh
BEEZiYKQe3QT0XLAG/iRpRLKU54Y82uN/zOT78J45K8CAwEAAaOCA3Ywgg
NyMA4GA1UdDwEB/wQEAwIFoDAdBgNVHQ4EFgQUkntdPqo+FF/E+vwQml
KqUrfm5CMwgbIGA1UdEQSBqjCBp4ISbWFpbC5yMnJhZHdhcmUuY29tghJj
YXMxLnIycmFkd2FyZS5jb22CEmNhcZiucjJyYWR3YXJlLnNvbYINcjJyYWR3
YXJlLnNvbYIwZWhjaGFuZ2UucjJyYWR3YXJlLnNvbYIaYXV0b2Rpc2NvdMv
yLnIycmFkd2FyZS5jb22CEmh1YjEucjJyYWR3YXJlLnNvbYISaHViMi5yMnJh
ZHdhcmUuY29tMB8GA1UdIwQYMBaAFNj/ZiG/8xY9vDWk0DOHbJiqLfdRmII
BCwYDVR0fBIIBAajCB/zCB/KCB+aCB9oaBt2xkYXA6Ly8vQ049cjJyYWR3YXJl
LVIIyREMtQ0EsQ049cjJkYyxDTj1DRFAsQ049UHVibGljJTJwS2V5JTJwU2Vydm
mljZXMsQ049U2VydmVjZXMsQ049Q29uZmlndXJhdGlvbixEQz1yMnJhZHdh
cmUsREM9Y29tP2NlcnRpZmljYXRlUmV2b2NhdGlvbKxpc3Q/YmFzZT9vYmp

IY3RDbGFzcz1jUkxEaXN0cmliRXRpb25Qb2ludIY6aHR0cDovL3IyZGMucjJyYWR3YXJlMnNvbS9DZXJ0RW5yb2xsL3IycmFkd2FyZS1SMkRDLUNBLmNybcCASIGCCsGAQUFBwEBBIIBFDCCARAwgBIGCCsGAQUFBzAChOGIbGRhcDovLy9DTj1yMnJhZHdhcmUtUjJEQy1DQSxDTj1BSUESQ049UHVibGljJTIwS2V5JTIwU2VydmljZXMsQ049U2VydmljZXMsQ049Q29uZmlndXJhdGlvbixEQz1yMnJhZHdhcmUsREM9Y29tP2NBQ2VydGlmaWNhdGU/YmFzZT9vYmpIY3RD bGFzcz1jZXJ0aWZpY2F0aW9uQXV0aG9yaXR5MFkGCCsGAQUFBzAChk1odHRwOi8vcjJkYy5yMnJhZHdhcmUuY29tL0NlcnRFbnJvbGwvcjJkYy5yMnJhZH dhcmUuY29tX3IycmFkd2FyZS1SMkRDLUNBLmNydDAhBgkrBgEEAYI3FAIE FB4SAFcaZQBIAFMAZQByAHYAZQByMBMGA1UdJQQMMAoGCCsGAQUFBw MBMA0GCSqGSIb3DQEBBQUAA4IBAQCuJIqS4F6g0z9/N6sbXo0PC4DDFS7 DWPTXbIIz81CGutpAk58RbVc/y/e3/nNjkJji/iOh1Kq5DoabExtYoKn1iqoQ7 WOn+MPqbZmmQlfKWSgS0AjI2oJ45/eo76e7tHI2HKuRSBfVq56IG+CwWo eowNp5IJjwUuPwKy6lpN4sCRDNjDqgvnXf5fvND5fdUpBUmp1W30k4XHEh 1jFAi7KUQcvNx+IQRXC7btiVqeJ21AdnNFVmOry47+qx6eOYQsywr8OziHjZ T2fGmlbUiuXzTcZNAdbtzvk9pW6EaBPXjqfZpiy5kZDNZnivyhznxxIduyIIHw 65P60a3vi3IXY1-----END CERTIFICATE-----

```
/c/slb/ssl/sslpol 3
    name "shsrepoint.ssl"
    ena
```

SLB Configuration

```
/c/slb
    on
/c/slb/adv
    direct ena
/c/slb/adv
    submac "ena"
/c/slb/sync
    pips e
    certs e
    state e
/c/slb/sync/peer 1
    ena
    addr 192.168.1.3
/c/slb/port 1
    client ena
    server ena
    proxy ena
/c/slb/port 2
    client ena
    server ena
```

Server Configuration

```
/c/slb/real 20
  ena
  ipver v4
  rip 192.168.1.61
  name "Sharepoint.1"
/c/slb/real 21
  ena
  ipver v4
  rip 192.168.1.62
  name "Sharepoint.2"
```

SharePoint 2010 service configuration

```
/c/slb/group 20
  ipver v4
  metric roundrobin
  health http
  add 20
  add 21
  name "sharepoint.group"
/c/slb/virt 21
  ena
  ipver v4
  vip 192.168.3.209
  vname "SharePoint"
/c/slb/virt 21/service 443 https
  group 20
  rport 80
  dbind ena
/c/slb/virt 21/service 443 https/http
  comppol 1
  cachepol 1
  connmgt ena 20
  httpmod 1
/c/slb/virt 21/service 443 https/ssl
  svrcert 3
  sslpol 3
/c/slb/virt 21/service 80 http
  group 20
  pbind clientip norport
  dbind ena
/c/slb/virt 21/service 80 http/http
```

```
    comppol 1
    cachepol 1
    connmgt ena 20
/c/slb/virt 21/service 443 https/pbind cookie insert "path=128"
/c/slb/virt 21/service 443 https/http/rcount 1
/c/slb/layer7/httpmod 1
    ena
    name "http to https"
/c/slb/layer7/httpmod 1/rule 1 text
    ena
    name "http.to.https"
    directn resp
    body include
    action replace "FROMTEXT=http://sp.r2radware.com"
    "TOTEXT=https://sp.r2radware.com"
```

Proxy NAT configuration

```
/c/slb/pip/type port
/c/slb/pip/add 192.168.3.241 1
```

Secondary Alteon Configuration

Note: To enable Alteon configuration sync use the command `/cfg/slb/sync/update` (run this command on the primary Alteon device once configuration of the backup device is completed as below). Otherwise, SLB configuration on the backup device should be done manually, the same as on the active device.

Network configuration

```
/c/port 1
  pvid 204
/c/port 2
  pvid 205
/c/l2/vlan 1
  learn ena
  def 0
/c/l2/vlan 204
  ena
  name "TAG.192.168.3.x"
  learn ena
  def 1
/c/l2/vlan 205
  ena
  name "TAG.192.168.1.x"
  learn ena
  def 2
/c/l2/stg 1/clear
/c/l2/stg 1/add 1 204 205
/c/l3/if 1
  ena
  ipver v4
  addr 192.168.3.3
  vlan 204
/c/l3/if 2
  ena
  ipver v4
  addr 192.168.1.3
  vlan 205
/c/l3/gw 1
  ena
  ipver v4
  addr 192.168.3.254
```

VRRP Configuration

```
/c/l3/vrrp/on
/c/l3/vrrp/vr 1
  ena
  ipver v4
  vrid 131
  if 1
  addr 192.168.3.1
  track
    ifs e
    ports e
/c/l3/vrrp/vr 2
  ena
  ipver v4
  vrid 132
  if 2
  addr 192.168.1.1
  track
    ifs e
    ports e
/c/l3/vrrp/vr 6
  ena
  ipver v4
  vrid 136
  if 1
  addr 192.168.3.209
  track
    ifs e
    ports e
/c/l3/vrrp/vrgroup 1
  name ""
  prio 101
  add 1
  add 2
  add 6
  ena
  track
    ifs e
    ports e
```

Sync Configuration

```
/c/slb/sync
  pips e
  certs e
  state e
/c/slb/sync/peer 1
  ena
  addr 192.168.1.2
```

Technical Support

Radware offers technical support for all of its products through the Radware Certainty Support Program. Please refer to your Certainty Support contract, or the Radware Certainty Support Guide available at:

<http://www.radware.com/content/support/supportprogram/default.asp>

For more information, please contact your Radware Sales representative
or: U.S. and Americas: (866) 234-5763

International: +972(3) 766-8666

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