



TESTING & INTEGRATION GROUP

SOLUTION GUIDE

Alteon Application Switch optimizing the delivery of VMware
Zimbra 7.2 servers.

TECHNICAL SOLUTION GUIDE

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Introduction

The Radware Alteon Application Switch and VMware Zimbra joint solution provides a highly-scalable and highly-available unified messaging and communication infrastructure with the fastest response time. By deploying these two best-of-breed subsystems, end users benefit from a significantly improved Quality of Experience.

Using advanced health monitoring of each of the client access servers, Radware's Alteon Application Switches validate the availability and response time of those resources, as well as deliver seamless load balancing, redundancy and persistency features. Furthermore, through its FastView™ technology, Radware's Alteon provides service acceleration, offloading critical resources from the Zimbra servers, lowering CAPEX and OPEX to the organization.

Radware Alteon

Radware's Alteon ADC solution provides advanced and comprehensive application delivery capabilities needed to effectively meet the challenges of application deployment and application delivery in today's data centers. Equipped with advanced application acceleration capabilities, a global server load balancing solution and a comprehensive Layer 7 modification tool, the Alteon ADC is well-positioned as the leading ADC in the industry. Alteon ADC also spearheads the ADC virtualization trend with ADC-VX™, the industry's first ADC virtualization and consolidation platform based on a specialized ADC hypervisor, and with Alteon virtual appliance (Alteon VA).

Integrated Application Acceleration Capabilities with FastView

Radware's Alteon ADC delivers a wide set of advanced application acceleration capabilities that accelerate application response time while offloading server processing. By offloading processor-intensive operations, such as SSL, Web compression, caching, HTTP multiplexing, and TCP optimization, it frees the servers' CPUs to handle additional requests, resulting in reduced application server hardware and lower CAPEX.

Radware's FastView result-driven acceleration technology adds Web Performance Optimization (WPO) capabilities on top of the standard ADC application acceleration features to deliver the fastest Web application response time and ensure best application SLA. The result is best business impact for increased revenues, more page views, higher customer loyalty as well as improved employee productivity when using enterprise Web applications for all browsers and all end-user device types – starting from the first page visit.

Shaped to Deliver Applications

With Radware's AppShape™ technology, Alteon ADC benefits from reduced deployment time of application delivery services by 85%, while guaranteeing maximum value for each business-critical application in terms of availability, performance and security. AppShape offers configuration templates and wizards for leading business applications. AppShape allows application delivery services to be fully managed and operated from an application-centric view, including operational screens, logs and compliance – resulting in simplified and efficient application

management in the ADC. Furthermore AppShape's reporting capabilities help organizations with capacity planning tasks by providing per-application trend analysis and resource utilization reports.

VMware Zimbra

VMware Zimbra's innovative post-PC email, calendar and collaboration solution solves the challenges faced by organizations mired in legacy communications infrastructure.

End Users Seamlessly Connect to Their Personal Clouds

Zimbra provides end users with a feature-rich browser-based experience that enables them to seamlessly and securely connect to their personal clouds on any device or platform. Zimbra's smarter mailbox helps manage information and activity across their email, voice, social, calendar, address book, tasks and enterprise applications. Zimbra offers anywhere access, both online and offline, and synchs across multiple devices and smartphones (iPhone, Android, BlackBerry), while maintaining compatibility with all existing desktop email and calendar clients.

Manage IT-as-a-Service

Zimbra provides the choice of running securely in any private cloud as a virtual appliance or hosted in the public cloud. The software virtual appliance enables IT administrators to instantly deploy their own private email and collaboration cloud on top of VMware vSphere without complex installation and configuration workflows. With an open architecture and APIs, Zimbra integrates seamlessly with existing and new enterprise applications. Zimbra provides out-of-the-box integration with Cisco and Mitel for click-to-call, visual voicemail, call record history, presence and instant messaging. Additionally, IT administrators can easily connect Zimbra to their existing unified communications solution or extend Zimbra to work with other third-party unified communication solutions.

Streamlined Administration for Lower TCO

Designed for virtualization, Zimbra delivers faster provisioning and easier administration with built-in support for high availability, disaster recovery, backup and lifecycle management using vSphere. Zimbra simplifies these critical functions through an easy-to-use, Web-based administration console that enables administrators to easily access the applications anywhere, anytime and manage access and policies for a diverse set of users. Zimbra also supports hierarchical storage management, optimizing storage costs through tiered storage, and multi-tenancy that enables service providers to cost-effectively support a variety of businesses in a hosted environment. Additionally, Zimbra's high-scalability and reduced administration time (33% less than Microsoft Exchange) enables IT to manage email and collaboration with fewer resources, lower costs and less risk—in the cloud or on-premises.

Radware Alteon and VMware Zimbra Server Architecture

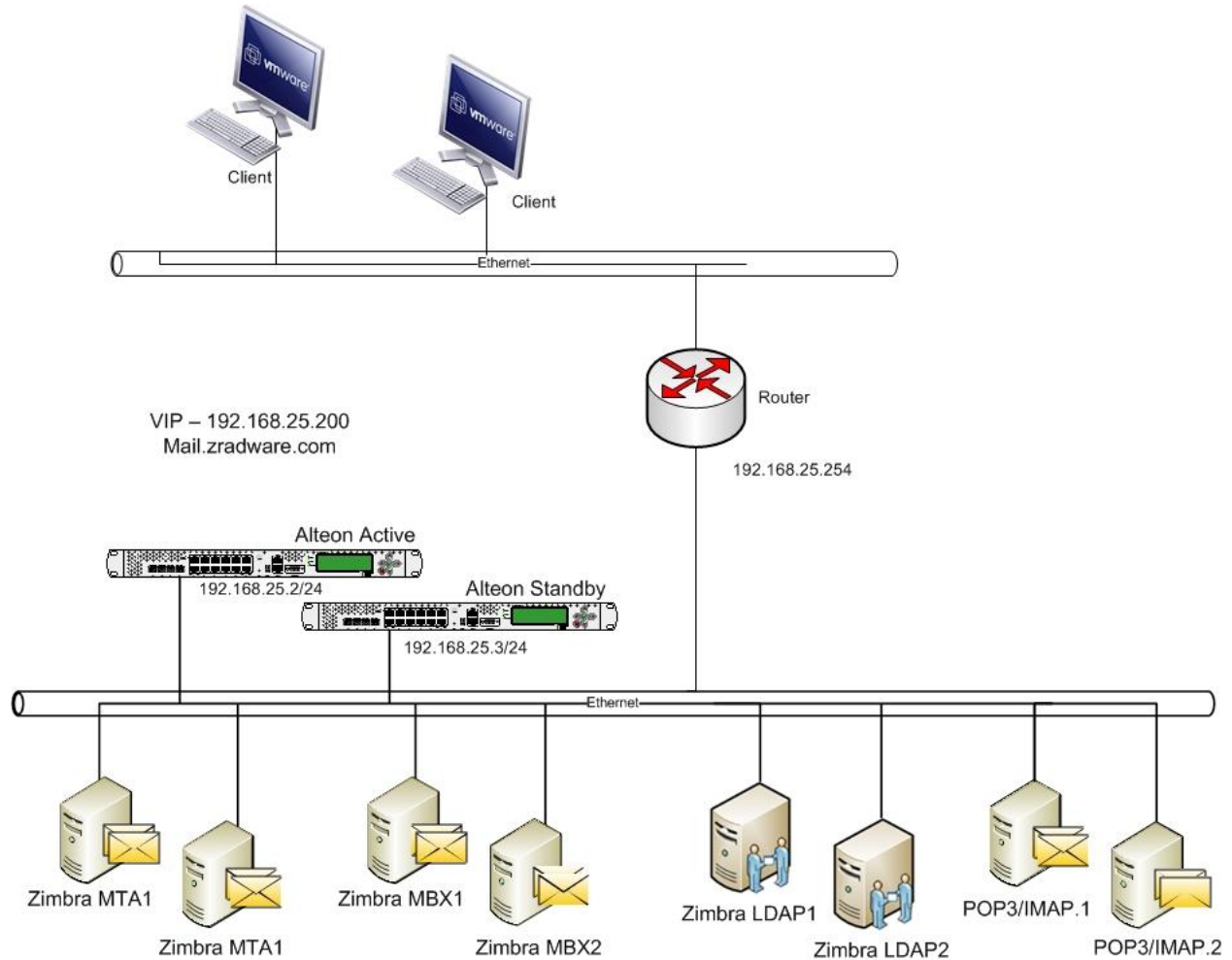


FIGURE 1 – TESTED EXAMPLE CONFIGURATION

Important Implementation Notes

1. Though reference is made to the Radware pre-configured certificates, you can import a certificate or create a new certificate in Alteon. For more information on exporting, importing, or creating certificates, see the *Alteon Application Switch Operating System Application Guide*.
2. In this architecture, Alteon offloads the SSL traffic and encrypts it again at the server side in a lower cypher mode.
3. SSL offloading is done for HTTPS, IMAPS, SecureSMTP and POP3S services.

Software and Hardware

The following is a list of the hardware and software tested to verify the interoperability of the presented solution:

- VMware Zimbra 7.2 servers
- Radware Alteon version 28.1.5
- VMware Zimbra Desktop client v.7.2.1
- VMware vCenter 5.u1a
- VMware ESX 5.u1

Configuration

Alteon Active Configuration

Network Configuration

```
/c/port 1
    pvid 506
/c/l2/vlan 1
    learn ena
    def 2
/c/l2/vlan 506
    ena
    name "506"
    learn ena
    def 1
/c/l2/stg 1/clear
/c/l2/stg 1/add 1 506
/c/l3/if 1
    ena
    ipver v4
    addr 192.168.25.2
    vlan 506
/c/l3/gw 1
    ena
    ipver v4
    addr 192.168.25.254
```

Sync Configuration

```
/c/slb/sync
    certs e
/c/slb/sync/peer 1
    ena
    addr 192.168.25.3
```

PIP Configuration

```
/c/slb/pip/type vlan
/c/slb/pip/type port
/c/slb/pip/add 192.168.25.201 1
```

Real Servers Configuration

```
/c/slb/real 1
    ena
    ipver v4
    rip 192.168.25.11
    name "zimbra.mbx.1"
```

```
/c/slb/real 2
  ena
  ipver v4
  rip 192.168.25.12
  name "zimbra.mbx.2"
```

Server Groups Configuration

```
/c/slb/group 1
  ipver v4
  metric phash 255.255.255.255
  add 1
  add 2
  name "zimbra.HTTP.servers"
/c/slb/group 2
  ipver v4
  metric phash 255.255.255.255
  add 1
  add 2
  name "zimbra.pop3.servers"
/c/slb/group 3
  ipver v4
  metric phash 255.255.255.255
  add 1
  add 2
  name "zimbra.ldap.servers"
/c/slb/group 4
  ipver v4
  metric phash 255.255.255.255
  add 1
  add 2
  name "zimbra.imap.servers"
/c/slb/group 5
  ipver v4
  metric phash 255.255.255.255
  add 1
  add 2
  name "zimbra.smtp.servers"
```

Alteon Process Directions

```
/c/slb/port 1
  client ena
  server ena
  proxy ena
```

Virtual Services Configuration

```
/c/slb/virt 1
  ena
  ipver v4
```

```
    vip 192.168.25.200
    vname "zimbra.servers"
/c/slb/virt 1/service 443 https
    group 1
    rport 80
    dbind forceproxy
/c/slb/virt 1/service 443 https/http
    comppol 1
    xforward ena
/c/slb/virt 1/service 443 https/ssl
    svrcert cert 1
    sslpol 1
/c/slb/virt 1/service 389 ldap
    group 3
/c/slb/virt 1/service 25 smtp
    group 5
    pbind clientip norport
/c/slb/virt 1/service 110 pop3
    group 2
/c/slb/virt 1/service 143 imap
    group 4
/c/slb/virt 1/service 993 ssl
    name Secure.IMAP
    group 4
    rport 143
    dbind forceproxy
/c/slb/virt 1/service 993 ssl/ssl
    svrcert cert 1
    sslpol 2
/c/slb/virt 1/service 995 ssl
    name Secure.POP3
    group 2
    rport 110
    dbind forceproxy
/c/slb/virt 1/service 995 ssl/ssl
    svrcert cert 1
    sslpol 2
/c/slb/virt 1/service 465 ssl
    name Secure.SMTP
    group 5
    rport 25
    dbind forceproxy
/c/slb/virt 1/service 465 ssl/ssl
    svrcert cert 1
    sslpol 2
/c/sys/access/https/cert WebManagementCert
/c/sys/access/https/https e
```

SSL Configuration

```
/c/slb/ssl/sslpol 1
```



```
name "zradware.com"  
ena  
/c/slb/ssl/sslpol 2  
name "SIMAP"  
cipher "all"  
convert disabled  
ena
```

VRRP Configuration

```
/c/l3/vrrp/on  
/c/l3/vrrp/vr 1  
ena  
ipver v4  
vrid 1  
if 1  
prio 200  
addr 192.168.25.1  
/c/l3/vrrp/vr 2  
ena  
ipver v4  
vrid 2  
if 1  
prio 200  
addr 192.168.25.200
```

Alteon Standby Configuration

Network Configuration

```
/c/port 1
  pvid 506
/c/l2/vlan 1
  learn ena
  def 2
/c/l2/vlan 506
  ena
  name "506"
  learn ena
  def 1
/c/l2/stg 1/clear
/c/l2/stg 1/add 1 506
/c/sys/sshd/ena
/c/sys/sshd/on
/c/l3/if 1
  ena
  ipver v4
  addr 192.168.25.3
  vlan 506
/c/l3/gw 1
  ena
  ipver v4
  addr 192.168.25.254
```

PIP Configuration

```
/c/slb/pip/type vlan
/c/slb/pip/type port
/c/slb/pip/add 192.168.25.202 1
```

Sync Configuration

```
/c/slb/sync
  certs e
/c/slb/sync/peer 1
  ena
  addr 192.168.25.2
```

VRRP Configuration

```
/c/l3/vrrp/on
/c/l3/vrrp/vr 1
  ena
  ipver v4
  vrid 1
  if 1
```

```
prio 100
  addr 192.168.25.1
/c/l3/vrrp/vr 2
  ena
  ipver v4
  vrid 2
  if 1
  prio 100
  addr 192.168.25.200
```

Appendix

Alteon Active Device Full Configuration Script

```
/c/sys/mgmt
  tftp mgmt
/c/sys
  idle 10080
/c/sys/access
  http ena
  tnet ena
/c/port 1
  pvid 506
/c/l2/vlan 1
  learn ena
  def 2
/c/l2/vlan 506
  ena
  name "506"
  learn ena
  def 1
/c/l2/stg 1/clear
/c/l2/stg 1/add 1 506
/c/sys/sshd/ena
/c/sys/sshd/on
/c/l3/if 1
  ena
  ipver v4
  addr 192.168.25.2
  vlan 506
/c/l3/gw 1
  ena
  ipver v4
  addr 192.168.25.254
/c/l3/vrrp/on
/c/l3/vrrp/vr 1
  ena
  ipver v4
  vrid 1
  if 1
  prio 200
  addr 192.168.25.1
/c/l3/vrrp/vr 2
  ena
  ipver v4
  vrid 2
  if 1
  prio 200
  addr 192.168.25.200
```

```
/c/slb/ssl/certs/key 1
/c/slb/ssl/certs/import key "1" text
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: DES-EDE3-CBC,F03B19B4D81EE533
```

```
nQiMOSseDLsDAsdpkDTYb1dKLyU3mp5CN8n/0AvDF+BbhA9ZnHY0msm4Mlay6bJy
39U+Xu0m2jAzSZ140gOErzJi4iBSjPnGu6St49jH6XLHxCi4CSWO+ymQbGu4QcPG
AcNuaKX1ieNwUj2chmQwYhbfIFPQu706iZis6e01/7Np3Qq0Ro5Jqt25DafhSTzi
ZGN82BerWlcnapimS4AogAbHysQKMTFEZjh65SON8u/RzEckzs3qRu8p8+Re+tBx
jD4VvhFhcUsR3UTIfkjJeswW2Lw+mKaj60jpc543KI5GtDWVIWabElixNHRsIO/Zb
OaoR+iVgFFHfsWbUtDwy+NI8ZMMH2kio62GuahIo3Cq38FDLN2BoUL+mdccg/msl
tiZO9c+DDmWtWwuqsgf/7j1OkancSU09B6hBhk+lvCpdOS3IxCtF2nwgoqNxFH9W
VdRVLxMO7h8BH60/7T20atMUGSJEGVI8QL/nmvFwcmXwkdaqvnHig8+qIqvXciRN5
CkOhYjymkrjreo5oFFRu68h1aJEQn5UadXEXv3aRLSol+WzjWLqphZBh5eJtd+Us
3xFxGWD6yIYduqRzknAzztN5EnZ3tsDkmcCAWx1vFYewCBdwZZYTNgSww3DqV0ZC
dzCx+7U3aockMd+GGRzGCusg0PUHC/MPR5bVkreN7iK+VIPKcnzr7TjCNxtg5H33
xZtLs+YivQ1yW7cD81izPg9+R8uotsJi/0IYYg3x1cagh2zVE2vYdgw9BAUIPDGp
8s6N0Ibf+chFCD2m6woMelyxJEYY5QDKTZzNCniCL7hoHz7CTOx8Mg==
-----END RSA PRIVATE KEY-----
```

```
/c/slb/ssl/certs/key WebManagementCert
/c/slb/ssl/certs/import key "WebManagementCert" text
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: DES-EDE3-CBC,2036FC3FBF6E4C96
```

```
jMXKMX/IucVInYRBideFBdMr2H2RnSxDNLnwb6lpwC5sTe3tI4EcSZzArPSEBYH
Q/j/8FRaL7bY/z07/02ZopE4DU64B7Djw4uo5t00Uzcz05NtyKsv0PEbbv/u1bPH
GUJc9XfRsifbbqzag025GuQFXhBlouBkhSt4cdaDK6NqlAPhEvL7/VZ38fjIEtcv
2d4m0EekVvtyOj/JgPw5+6swx18zN9OSVJuWviR7Z1x2dQGe+meTIAjDPyAYbb+b
zo0cLiCoNSyKAZL4yw7QUIPGhwrmm15eJSFgoLMTd2vBMUwQPB96r9hhV9vIkO7q
F24+wbl1EV9XtKe7IwWrXmoV06wGLhRitf7ARXwb7OIz9Vv8EfdHtbSNlz3zoa+9
gkwtrkbcmXHMvhXduN/UEX7P8V25VyuNQAgZbVsQAPsWCETYYbhxxJOCqSj8NHb2
ujceFALvkoQHge5OI7oUF/Cl8xRvVqGyGjaGWjflFDa4WuJwwB6j5dFWmu4+2vzl
0taVnsa2qD8M54reqktK4ukqZFeJRSrLRZZEkPzbnz/d9NVWccyfpMa811c9cXmT
UPEjcVwHMO2N2oaOBHxmImIWsSi6dmTq8THU0N2RFOZ0vVn1JZds4LMb22VuKWY
G
aknZtW7z3H62dXhrufETUcvwLIPTB2hz+jI2AoTrhW4mt16pTJ9y+f8yehzELB5c
+FkXpqHh+ROG3FGPKypSOen6DBI7AHluIoXLbLVvruNIR5FEZVAUeV2br0xrToJJ
Mx0lat6ZpyzfcIzmVupOm3MATry4zRb1oJvrutKEjXbla36XRQ9L2w==
-----END RSA PRIVATE KEY-----
```

```
/c/slb/ssl/certs/request 1
/c/slb/ssl/certs/import request "1" text
-----BEGIN CERTIFICATE REQUEST-----
MIIBaDCB0gIBADApMR0wGAYDVQQDExFtYWlsLnpyYWR3YXJlMnVbTElMAkGA1UE
BhMCSUwwGZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMydf8e6QutRdt8fvVah
h+LDAbB7i9mTJIP2sSWyFnCyKnLfrd5tPSxOdd0n3zIz2CM0J5YIEN7AZ7Lppnd3
APJqf16w7hB//emCJ7wjnGoG1YJK3qBNKpNIJEAd/hm/adm55Rxcyb/8RKGEjNss
```

```
RCnTHS6wBkYqvc+GuiNVGdA/AgMBAAGgADANBgkqhkiG9w0BAQUFAAOBgQCMDeK
q
Offnp5Orf6rdkbbkPjINLbkrpAhYPYfZY/f6kP0UvWJnXZZr0qfknuIS1JK5cx29h
TUZgP49vLWQ9FEzD4TUrz/MRytokOgY1GyGbdxMXzyVNX925LGB8h5w5FvX0i60u
ZK3g5Pk5S7CYoS7PEXcWgY+zyd/kD2j98DkULw==
-----END CERTIFICATE REQUEST-----
```

```
/c/slb/ssl/certs/request WebManagementCert
/c/slb/ssl/certs/import request "WebManagementCert" text
-----BEGIN CERTIFICATE REQUEST-----
MIIBazCB1QIBADAsMSowKAYDVQQDFCFEZWZhdWx0X0dlbmVyYXRIZF9BbHRib25f
QkJJX0NlcnQwgZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMhHvFtL7NPEXnu2
9PflQGsBnZMQ3pHWO+k4YZk+em/gB0IWDU/uiKFrPVM4x+qCcjWM2piPi/6ZgtlS
LFRghGOz4UTOHhB4CTpi0v8WAIQppP/uuke9qMtn/JZ1dqCtGiRVGIiS1RtXXPa
KdzW22iqsoB9sfyvzSQ8GldHqWqxAgMBAAGgADANBgkqhkiG9w0BAQQFAAOBgQBb
SZELxWyOvkr0hEFFrop/b5e5XzOI8JhIINwWgbqPG5O13DMWryVoGaq5wq00fqaI
06kJpzFn6zcYlzF5LSic90SI/kCy/MFbyDgtbywrFagvyRDt+PL+vGYdpJgyxNPe
4o/F7ZdrGsTgDjNmxSfpWAOcuVdfVYRRRD545RI+yA==
-----END CERTIFICATE REQUEST-----
```

```
/c/slb/ssl/certs/srvrcert 1
    name "zimbra"
/c/slb/ssl/certs/import srvrcert "1" text
-----BEGIN CERTIFICATE-----
MIICqTCCAhhKgAwIBAgIEUAgOzTANBgkqhkiG9w0BAQUFADApMRRowGAYDVQQDExFt
YWlsLnpyYWR3YXJlLnNvbTElMAkGA1UEBhMCSUwwHhcNMTIwNzE5MTM1OTAxWhc
N
MjIwNzE5MTM1OTAxWjApMRRowGAYDVQQDExFtYWlsLnpyYWR3YXJlLnNvbTElMAkG
A1UEBhMCSUwwZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMydf8e6QutRdt8f
vVahh+LDAbB7i9mTJIP2sSWyFnCyKnLfrD5tPSxOdd0n3zIz2CM0J5YIEN7AZ7Lp
pnd3APJqf16w7hB//emCJ7wJnGoG1YJK3qBNKpNIJEAd/hm/adm55Rxcyb/8RKGE
jNssRCnTHS6wBkYqvc+GuiNVGdA/AgMBAAGjgd0wgDowDwYDVR0TAQH/BAUwAwEB
/zARBgIghkgBhvhCAQEEBAMCAkQwMgYJYIZIAYb4QgENBCUWI0FsdGVvbi9Ob3J0
ZWwgR2VuZXJhdGVkIENlcnRpZmljYXRIMB0GA1UdDgQWBBQn5rqm1Wo/ahn4FWp3
7Xks4GfNizBUBgNVHSMETTBLgBQn5rqm1Wo/ahn4FWp37Xks4GfNi6EtpCswKTEa
MBgGA1UEAxMRbWfPbC56cmFkd2FyZS5jb20xCzAJBgNVBAYTAklMggRQCA7NMAsg
A1UdDwQEAwIC5DANBgkqhkiG9w0BAQUFAAOBgQCW/wLW3KT+FIE0v1Q1dmKWL1
tw
t90sfACUQ72YGcVa4rV8X/HaBVuzH0MdI/9Toc2gv3r3iJ+qta1sQR7yPQb0RV+T
DrT7ecIb17zcJfthHri4ShxYgTTNen/6yBXa7c97qZquTL52Fchfedc4YOD3mfFV
bT+C2K0L5SEivn1nBA==
-----END CERTIFICATE-----
```

```
/c/slb/ssl/certs/srvrcert WebManagementCert
/c/slb/ssl/certs/import srvrcert "WebManagementCert" text
-----BEGIN CERTIFICATE-----
MIICsjCCAhhugAwIBAgIEUAgOzDANBgkqhkiG9w0BAQQFAADAsMSowKAYDVQQDFCFE
ZWZhdWx0X0dlbmVyYXRIZF9BbHRib25fQkJJX0NlcnQwHhcNMTIwNzE5MTM1OTAx
WhcNMTMwNzE5MTM1OTAxWjAsMSowKAYDVQQDFCFEZWZhdWx0X0dlbmVyYXRIZF
9B
bHRib25fQkJJX0NlcnQwgZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMhHvFtL

```

```
7NPEXnu29PfLqGsBnZMQ3pHWO+k4YZk+em/gB0IWDU/uiKFrPVM4x+qCcjWM2piP
i/6ZgtlSLFRghGOz4UTOHhb4CTpi0v8WAlQPppP/uuke9qMtn/JZ1dqCtGiRVGIi
S1RtXXPaKdzW22iqsoB9sfyvzSQ8GldHqWqxAgMBAAGjgeAwgd0wDwYDVR0TAQH/
BAUwAwEB/zARBglghkgBhvhCAQEEBAMCAkQwMgYJYIZIAYb4QgENBCUWI0FsdGVV
bi9Ob3J0ZWwgR2VuZXJhdGVkIENlcnRpZmljYXRIMB0GA1UdDgQWBbQ1/qBazJMc
8CUS6qh3ZJ94XQ5uHDBXBgNVHSMEUDBOgBQ1/qBazJMc8CUS6qh3ZJ94XQ5uHKE
w
pC4wLDEqMCgGA1UEAxQhRGVmYXVsdF9HZW5lcmF0ZWRFQWx0ZW9uX0JCSV9DZX
J0
ggRQCA7MMAsGA1UdDwQEAwIC5DANBgkqhkiG9w0BAQQFAAOBgQAeNLAE+egN84
aP
vWmRuD7E93IYupes/XJNhiM4IywP06aWgdSAA+ospK9/ueHOq0Pbw1Pe4hzvfx4
Z5PHQgf0aa2AcoSQePtlAio9564vft3+z+MgZvKihXRLYPheJaUmwLt2to7HA7l
Qp9tGbLxU/KKsd9/DQe2UP7WeRexOA==
-----END CERTIFICATE-----
```

```
/c/slb/sync/passphrs
b4014420a0004000f7e2ad3c52a3f0c30cb6c2691acd49e83827946cdbea89dd
/c/slb/ssl
  on
/c/slb/ssl/sslpol 1
  name "zradware.com"
  ena
/c/slb/ssl/sslpol 2
  name "SIMAP"
  cipher "all"
  convert disabled
  ena
/c/slb
  on
/c/slb/sync
  certs e
/c/slb/sync/peer 1
  ena
  addr 192.168.25.3
/c/slb/real 1
  ena
  ipver v4
  rip 192.168.25.11
  name "zimbra.mbx.1"
/c/slb/real 2
  ena
  ipver v4
  rip 192.168.25.12
  name "zimbra.mbx.2"
/c/slb/real 5
  ena
  ipver v4
  rip 192.168.25.13
  name "zimbra.mta.1"
/c/slb/real 6
```

```
    ena
    ipver v4
    rip 192.168.25.14
    name "zimbra.mta.2"
/c/slb/group 1
    ipver v4
    metric phash 255.255.255.255
    add 1
    add 2
    name "zimbra.HTTP.servers"
/c/slb/group 2
    ipver v4
    metric phash 255.255.255.255
    add 1
    add 2
    name "zimbra.pop3.servers"
/c/slb/group 3
    ipver v4
    metric phash 255.255.255.255
    add 1
    add 2
    name "zimbra.ldap.servers"
/c/slb/group 4
    ipver v4
    metric phash 255.255.255.255
    add 1
    add 2
    name "zimbra.imap.servers"
/c/slb/group 5
    ipver v4
    metric phash 255.255.255.255
    add 1
    add 2
    name "zimbra.smtp.servers"
/c/slb/pip/type vlan
/c/slb/pip/type port
/c/slb/pip/add 192.168.25.201 1
/c/slb/port 1
    client ena
    server ena
    proxy ena
/c/slb/virt 1
    ena
    ipver v4
    vip 192.168.25.200
    vname "zimbra.servers"
/c/slb/virt 1/service 443 https
    group 1
    rport 80
    dbind forceproxy
/c/slb/virt 1/service 443 https/http
```



```
    comppol 1
    xforward ena
/c/slb/virt 1/service 443 https/ssl
    svrcert cert 1
    sslpol 1
/c/slb/virt 1/service 389 ldap
    group 3
/c/slb/virt 1/service 25 smtp
    group 5
    pbind clientip norport
/c/slb/virt 1/service 110 pop3
    group 2
/c/slb/virt 1/service 143 imap
    group 4
/c/slb/virt 1/service 993 ssl
    name Secure.IMAP
    group 4
    rport 143
    dbind forceproxy
/c/slb/virt 1/service 993 ssl/ssl
    svrcert cert 1
    sslpol 2
/c/slb/virt 1/service 995 ssl
    name Secure.POP3
    group 2
    rport 110
    dbind forceproxy
/c/slb/virt 1/service 995 ssl/ssl
    svrcert cert 1
    sslpol 2
/c/slb/virt 1/service 465 ssl
    name Secure.SMTP
    group 5
    rport 25
    dbind forceproxy
/c/slb/virt 1/service 465 ssl/ssl
    svrcert cert 1
    sslpol 2
/c/sys/access/https/cert WebManagementCert
/c/sys/access/https/https e
/
```

Alteon Standby Device Full Configuration Script

```
/c/sys/mmgmt
    tftp mgmt
/c/sys/access
    http ena
    tnet ena
/c/port 1
    pvid 506
```

```
/c/l2/vlan 1
  learn ena
  def 2
/c/l2/vlan 506
  ena
  name "506"
  learn ena
  def 1
/c/l2/stg 1/clear
/c/l2/stg 1/add 1 506
/c/sys/sshd/ena
/c/sys/sshd/on
/c/l3/if 1
  ena
  ipver v4
  addr 192.168.25.3
  vlan 506
/c/l3/gw 1
  ena
  ipver v4
  addr 192.168.25.254
/c/l3/vrrp/on
/c/l3/vrrp/vr 1
  ena
  ipver v4
  vrid 1
  if 1
  prio 100
  addr 192.168.25.1
/c/l3/vrrp/vr 2
  ena
  ipver v4
  vrid 2
  if 1
  prio 100
  addr 192.168.25.200
/c/slb/ssl/certs/key 1
/c/slb/ssl/certs/import key "1" text
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: DES-EDE3-CBC,D006C91568541AB6

8VVd/KSgD6G3QdgDHu053OXihVV+YID2wzaGO8m86nc1Fhf8qVIYclVSzuQ4IATr
fwAxhN3tuUGEujDAbzV4W7MDRBx9J4PUWV3WzGcyNIK8K8xSt1JBelRgewtsU1ej
BY/Ngmp2A3/hZVKDaEYmeeeeFGNXF2euqCsoi4IG0VJrmdn376HxUlcdemDE5bwcS
dhX7C/sb64X/eqz19FpX7FN+SQM4+jPxksSBrj5fc5srDYi60EWO4FhoR+VuvwHQ
6vF8RotrdfVsbHTVUoN0+WOUswNm0Krhe6Lzc4VpnIBIQzJJSynzl7TCecGwvgID
6T3s/+7W67NnBpjtenDxtyHDdKTYOEesyKuaEe/hXZ/wsjMt5SlhUPXTJwWhKX6L
DW4n5td3PjTMAoU2oFCxsT5t7nCaYGatpfpfTI5fDZlofeaeyf9fwHVSbsYBxd2B
9l4xe4S0UuiUQVTpA6+eIq4tgFhsnut2IIIf2RMu6uk9Wlt258afESi3iMoFtdRf1
nXHW3GtSt5YPdcrrWSWtFAJZkSCGCDgriLEmKx7ufZ7Z6u/ezRbJgMrUfIXaRMu1
```

```
MxvblJBzfh6/yp6lZrjGu6kTX0tkvTjNAFdr7ebymkmS9xhXV7dN0ajwIJowQTdW
+tt/kRhSyfNLPjuRr7TsVALqAesRMyXMSp2Zulj2mP7QIFUzPluiR+z0XJbQhzEE
8w9rElb1+aFNrGcQtKwwzMVaa8vGtbnbyixAYkHrTUuch5ZnxuUlv1vljOlz7R8w
iAd6w3mcJCrG2ACvCoxt9DhwAzHQXXcCS0mUF7ZnU/WYaySSR3kdeA==
-----END RSA PRIVATE KEY-----
```

```
/c/slb/ssl/certs/key WebManagementCert
/c/slb/ssl/certs/import key "WebManagementCert" text
-----BEGIN RSA PRIVATE KEY-----
Proc-Type: 4,ENCRYPTED
DEK-Info: DES-EDE3-CBC,7284489B92800A42
```

```
ymAQEkwbHB7iWr69OTpyB41V1d5Skp7dZ5I8NbDtZNI8VLo0U+qGPBu9P6T5wU/M
DBAUKWoON4ReOv1pbhbbPwHWITU6ouaz29hQiGXHGZvDTYiNTbAukKfc7TnRfnr
TCmk+yRiiHrWIoCulftnmEt3EsrU4TfSgvPxVKzcEEppv9XW27qHvoO5IkU+qNo
JiYSXYRikqVpnCMNg/JtpvcCzTi8aNsrww501gJBXbRAG/Q9EeAg/uEfKcUuO7+I
twkLTCV4KMYvxR3mLqDkiNjpRG1LiDN4v/WafZ3PycwO0/CVWb9erjL0gacmPLM2
CUD9ixaXbEm9YOpKtvsM5WXbMhPQzvkns5oerDtn2JKli19HTSVDSU5czEZUFKM9
DYxbsE6oAFqhhE8O5PwcqmwzuTmbwL85G4xvSBLqHDW4tNLXCjtaSQjT5pPb7Zgz
IZN7VO/pLIWdvCt9N1VHOys9E/Z3e7Ug3hwcT+NZs4dLRzITN3LmaYxGUd8pmiKb
x+6S6JIczYau4maSb5c3IcMfXiemlRbVt2IUkb7nKNSd24iDDerYIK5hMI8GNDA/
o0iDcmFB2dOayOAE2BOhX26zB49qck+1Ki0o/Pcwjg53O4qN9OW0KbYLRfBlaLcc
ZQly9EIttz87Ir4glTFsTjG3iijaNgnJT6Xc2KF2bFfBXrmSj4fvE9DnFNwk5FIM
92thv3lkGctBhdd19cscdp2zIToYuvvfaHPrSojFB/4+f4XS/iePJ9AbfwG+WGaG
qq3taaA1MTI5fdKj9Q+sJMGye4Fg3vY1msG1LWEE8wdqGJP/5FHaGQ==
-----END RSA PRIVATE KEY-----
```

```
/c/slb/ssl/certs/request 1
/c/slb/ssl/certs/import request "1" text
-----BEGIN CERTIFICATE REQUEST-----
MIIBaDCB0gIBADApMRoWGAyDVQQDExFtYWlsLnpyYWR3YXJlLnNvbTElMAkGA1UE
BhMCSUwwZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMydf8e6QutRdt8fvVah
h+LDAbB7i9mTJIP2sSWyFnCyKnLfrd5tPSxOdd0n3zIz2CM0J5YIEN7AZ7Lppnd3
APJqf16w7hB//emCJ7wJnGoG1YJK3qBNkPNIJEAd/hm/adm55Rxcyb/8RKGEjNss
RCnTHS6wBkYqvc+GuiNVGdA/AgMBAAGgADANBgkqhkiG9w0BAQUFAAOBgQCMDek
q
OFFnp5Orf6rdkbpPjINLbkrpAhYPYfZY/f6kP0UvWJnXZZr0qfknuS1JK5cx29h
TUZgP49vLWQ9FEzD4TUrz/MRytokOgY1GyGbdxMXzyVNX925LGb8h5w5FvX0i60u
ZK3g5Pk5S7CYoS7PEXcWgY+zyd/kD2j98DkULw==
-----END CERTIFICATE REQUEST-----
```

```
/c/slb/ssl/certs/request WebManagementCert
/c/slb/ssl/certs/import request "WebManagementCert" text
-----BEGIN CERTIFICATE REQUEST-----
MIIBazCB1QIBADAsMSowKAYDVQQDFCFEZWZhdWx0X0dlbmVYXRIZF9BbHRib25f
QkJJX0NlcnQwgZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMhHvFtL7NPEXnu2
9PflqGsBnZMQ3pHWO+k4YZk+em/gB0IWDU/uiKFrPVM4x+qCcjWM2piPi/6ZgtlS
LFRghGOz4UTOhHb4CTpi0v8WAIQppP/uuke9qMtn/JZ1dqCtGiRVGIiS1RtXXPa
KdzW22iqsoB9sfyVzSQ8GldHqWqxAgMBAAGgADANBgkqhkiG9w0BAQQFAAOBgQBb
SZELxWyOvkr0hEFfrop/b5e5XzOI8JhIINwWgbqPG5O13DMWryVoGaq5wq00fqaI
06kJpzFn6zcYlZ5LSic90SI/kCy/MFbyDgtbywrFagvyRDt+PL+vGYdpJgyxNPe
```

```
40/F7ZdrGsTgDJnMxSfpWAOcuVdfVYRRRD545RI+yA==
-----END CERTIFICATE REQUEST-----
```

```
/c/slb/ssl/certs/srvrcert 1
  name "zimbra"
/c/slb/ssl/certs/import srvrcert "1" text
-----BEGIN CERTIFICATE-----
MIICqTCCAhKgAwIBAgIEUAgOzTANBgkqhkiG9w0BAQUFADApMRRowGAYDVQQDExFt
YWIsLnpyYWR3YXJlLnNvbTElMAkGA1UEBhMCSUwwHhcNMTIwNzE5MTM1OTAxWhc
N
MjIwNzE5MTM1OTAxWjApMRRowGAYDVQQDExFtYWIsLnpyYWR3YXJlLnNvbTElMAkG
A1UEBhMCSUwwZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMydF8e6QutRdt8f
vVahh+LDAbB7i9mTJIP2sSWyFnCyKnLrFd5tPSxOdd0n3zIz2CM0J5YIEN7AZ7Lp
pnd3APJqf16w7hB//emCJ7wjnGoG1YJK3qBNkPNIJEAd/hm/adm55Rxcyb/8RKGE
jNssRCnTHS6wBkYqvc+GuiNVGdA/AgMBAAGjgd0wgDwYDVR0TAQH/BAUwAwEB
/zARBglghkgBhvhCAQEEBAMCAkQwMgYJYIZIAYb4QgENBCUWI0FsdGVvbi9Ob3J0
ZWwgR2VuZXJhdGVkIENlcnRpZmljYXRIMB0GA1UdDgQWBBQn5rqm1Wo/ahn4FWp3
7XkS4GfNizBUBgNVHSMETTLgBQn5rqm1Wo/ahn4FWp37XkS4GfNi6EtpCswKTEa
MBgGA1UEAxMRbWVpbC56cmFkd2FyZS5jb20xCzAJBgNVBAYTAklMggRQCA7NMAsg
A1UdDwQEAwIC5DANBgkqhkiG9w0BAQUFAAOBgQCW/wLW3KT+FIE0v1Q1dmKWL1
tw
t90sfACUQ72YGcVa4rV8X/HaBVuzH0MdI/9Toc2gv3r3iJ+qta1sQR7yPQb0RV+T
DrT7ecIb17zcJfthHri4ShxYgTTNen/6yBXa7c97qZquTL52FchFedc4YOD3mfFV
bT+C2K0L5SEivn1nBA==
-----END CERTIFICATE-----
```

```
/c/slb/ssl/certs/srvrcert WebManagementCert
/c/slb/ssl/certs/import srvrcert "WebManagementCert" text
-----BEGIN CERTIFICATE-----
MIICsjCCAhugAwIBAgIEUAgOzDANBgkqhkiG9w0BAQQFADAsMSowKAYDVQQDFCFE
ZWZhdWx0X0dlbmVyYXRIZF9BbHRib25fQkJJX0NlcnQwHhcNMTIwNzE5MTM1OTAx
WhcNMTMwNzE5MTM1OTAxWjAsMSowKAYDVQQDFCFEZWZhdWx0X0dlbmVyYXRIZF9B
9B
bHRib25fQkJJX0NlcnQwZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMhHvFtL
7NPEXnu29PflQGsBnZMQ3pHWO+k4YZk+em/gB0IWDU/uiKFrPVM4x+qCcjWM2piP
i/6ZgtlSLFRghGOz4UTOHhB4CTpi0v8WAIQPppP/uuke9qMtn/JZ1dqCtGiRVGIi
S1RtXXPaKdzW22iqsoB9sfyvsSQ8GldHqWqxAgMBAAGjgeAwgd0wDwYDVR0TAQH/
BAUwAwEB/zARBglghkgBhvhCAQEEBAMCAkQwMgYJYIZIAYb4QgENBCUWI0FsdGVv
bi9Ob3J0ZWwgR2VuZXJhdGVkIENlcnRpZmljYXRIMB0GA1UdDgQWBBQ1/qBazJMc
8CUS6qh3ZJ94XQ5uHDBXBgNVHSMETTLgBQ1/qBazJMc8CUS6qh3ZJ94XQ5uHKE
w
pC4wLDEqMCgGA1UEAxQhRGVmYXVsdF9HZW5lcmF0ZWRFQWx0ZW9uX0JCSV9DZX
J0
ggRQCA7MMAsGA1UdDwQEAwIC5DANBgkqhkiG9w0BAQQFAAOBgQAeNLAE+egN84
aP
vWmRuD7E93IYupes/XJNhiM4IywP06aWgdSAA+ospK9/ueHOq0Pbw1Pe4hzvfx4
Z5PHQgf0aa2AcoSQePtsIAio9564vft3+z+MgZvKihXRLYPheJaUmwLt2to7HA7I
Qp9tGbLxU/KKsd9/DQe2UP7WeRexOA==
-----END CERTIFICATE-----
```

```
/c/slb/sync/passphrs
dcda19a4888a0884b7b3d0e77a29b847b1782ea0627f9c5ec12474c90168a879
/c/slb/gslb/dnssec
    keymaster dis
/c/slb/ssl
    on
/c/slb/ssl/sslpol 1
    name "zradware.com"
    ena
/c/slb/ssl/sslpol 2
    name "SIMAP"
    cipher "all"
    convert disabled
    ena
/c/slb
    on
/c/slb/sync
    certs e
/c/slb/sync/peer 1
    ena
    addr 192.168.25.2
/c/slb/real 1
    ena
    ipver v4
    rip 192.168.25.11
    name "zimbra.mbx.1"
/c/slb/real 2
    ena
    ipver v4
    rip 192.168.25.12
    name "zimbra.mbx.2"
/c/slb/real 5
    ena
    ipver v4
    rip 192.168.25.13
    name "zimbra.mta.1"
/c/slb/real 6
    ena
    ipver v4
    rip 192.168.25.14
    name "zimbra.mta.2"
/c/slb/group 1
    ipver v4
    metric phash 255.255.255.255
    add 1
    add 2
    name "zimbra.HTTP.servers"
/c/slb/group 2
    ipver v4
    metric phash 255.255.255.255
    add 1
```

```
    add 2
    name "zimbra.pop3.servers"
/c/slb/group 3
    ipver v4
    metric phash 255.255.255.255
    add 1
    add 2
    name "zimbra.ldap.servers"
/c/slb/group 4
    ipver v4
    metric phash 255.255.255.255
    add 1
    add 2
    name "zimbra.imap.servers"
/c/slb/group 5
    ipver v4
    metric phash 255.255.255.255
    add 1
    add 2
    name "zimbra.smtp.servers"
/c/slb/pip/type vlan
/c/slb/pip/type port
/c/slb/pip/add 192.168.25.202 1
/c/slb/port 1
    client ena
    server ena
    proxy ena
/c/slb/virt 1
    ena
    ipver v4
    vip 192.168.25.200
    vname "zimbra.servers"
/c/slb/virt 1/service 443 https
    group 1
    rport 80
    dbind forceproxy
/c/slb/virt 1/service 443 https/http
    compool 1
    xforward ena
/c/slb/virt 1/service 443 https/ssl
    svrcert cert 1
    sslpool 1
/c/slb/virt 1/service 389 ldap
    group 3
/c/slb/virt 1/service 25 smtp
    group 5
    pbind clientip norport
/c/slb/virt 1/service 110 pop3
    group 2
/c/slb/virt 1/service 143 imap
    group 4
```

```
/c/slb/virt 1/service 993 ssl
  group 4
  rport 143
  dbind forceproxy
/c/slb/virt 1/service 993 ssl/ssl
  svrcert cert 1
  sslpol 2
/c/slb/virt 1/service 995 ssl
  group 2
  rport 110
  dbind forceproxy
/c/slb/virt 1/service 995 ssl/ssl
  svrcert cert 1
  sslpol 2
/c/slb/virt 1/service 465 ssl
  group 5
  rport 25
  dbind forceproxy
/c/slb/virt 1/service 465 ssl/ssl
  svrcert cert 1
  sslpol 2
/c/sys/access/https/cert WebManagementCert
/c/sys/access/https/https e
/
```

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>.

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