**Installing a VRA**

It is recommended to install a VRA on every host in every site so that if protected virtual machines are moved from one host in

the cluster to another host in the cluster there is always a VRA to protect the moved virtual machines.

VRA Installation Requirements

**To install a VRA you require the following:**

■ 12.5GB datastore space.

■ At least 1GB of reserved memory.

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■ The ESX/ESXi host version must be 4.0U1 or higher and Ports 22 and 443 must be enabled on the host during the

installation.

You must also know the following information to install a VRA:

■ The datastore the VRA will use and the local network used by the host.

■ The network settings to access the peer site; either the default gateway or the IP address, subnet mask and gateway.

■ If a static IP is used, which is the Zerto recommendation1

, instead of DHCP, the IP address, subnet mask and default

gateway to be used by the VRA.

Note: For the duration of the installation of the VRA, the Zerto Virtual Manager enables SSH in the vCenter Server.

If the peer site VRAs are not on the default gateway, you must set up routing to enable the VRAs on this site to communicate

with the peer site VRAs.

To set up routing:

1. In the SETUP > VRAs tab, select MORE > Paired Site Routing.

The Configure Paired Site Routing dialog is displayed.

2. Click Enable Paired Site Routing.

3. Specify the following and then click Save:

Address – The IP address of the next hop at the local site, the router or gateway address, that is used to access the peer site

network.

Subnet Mask – The subnet mask for the peer site network.

Gateway – The gateway for the peer site network.

These access details are used to access the VRAs on the peer site.

The settings in the Configure Paired Site Routing dialog apply to all VRAs installed after the information is saved. Any existing

VRA is not affected and access to these VRAs continues via the default gateway. If the default gateway stops being used, you

must reinstall the VRAs that were installed before setting up paired site routing.

To install Zerto Virtual Replication Appliances (VRAs) on ESX/ESXi hosts:

1. In the Zerto User Interface, click SETUP > VRAs.

2. Select a host which requires a VRA and click NEW VRA.

1. In a non-production environment it is often convenient to use DHCP to allocate an IP to the VRA. In a production environment this is not recommended. For

example, if the DHCP server changes the IP allocation on a reboot, the VRA does not handle the change.

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The Configure and Install VRA dialog is displayed.

Note: If you selected a cluster or multiple hosts, only the first host in the displayed list is installed.

3. Specify the following Host Details:

Host – The host under which the VRA is installed. The drop-down displays the hosts managed by the hypervisor

management center which do not have a VRA installed, with the selected host displayed by default.

Host Root Password – The password used to access the host for the root user. This field is required for ESXi 4.x and 5.x

hosts. This field is disabled for ESX 4.x hosts. When the checkbox at the side is checked, the password is displayed as

asterisks. The password is used by the Zerto Virtual Manager when deploying and upgrading the VRA on this host. Also,

root access is required in case the Zerto host component is down and needs an automatic restart. The Zerto Virtual

Manager checks that the password is valid once a day. If the password was changed, an alert is triggered, requesting the

user enter the new password.

Datastore – The datastore that the VRA will use for protected virtual machine data on the recovery site, including the

journals. You can install more than one VRA on the same datastore.

Network – The network used to access the VRA.

VRA RAM – The amount of memory to allocate to the VRA. The amount determines the maximum buffer size for the VRA

for buffering IOs written by the protected virtual machines, before the writes are sent over the network to the recovery

VRA. The recovery VRA also buffers the incoming IOs until they are written to the journal. If a buffer becomes full, a

Bitmap Sync is performed after space is freed up in the buffer.

AMOUNT OF VRA RAM VRA BUFFER POOL SIZE

1GB 450MB

2GB 1450MB

3GB 2300MB

3GB 2300MB

4GB 3,300MB

5GB 4,300MB

6GB 5,300MB

7GB 6,300MB

8GB 7,300MB

9GB 8,300MB

10GB 9,300MB

11GB 10,300MB

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The protecting VRA can use 90% of the buffer for IOs to send over the network and the recovery VRA can use 75% of the

buffer. That is, for example, a protecting VRA defined with 2GB of RAM can buffer approximately 1305MB before the

buffer is full and a Bitmap Sync is required.

Note: The number of virtual machines that a VRA can support is not dependent on the amount of VRA RAM.

VRA Group – Choose the VRA Group from the dropdown list. If you want to create a new VRA group, type in the name of

the new group and click CREATE. You can then choose the new group from the dropdown list.

You group VRAs together when VRAs use different networks so they can be grouped by network, for example when the

protected and recovery sites are managed by the same vCenter Server and you want to replicate from the branch site to

the main site. Within a group the priority assigned to a VPG dictates the bandwidth used and is applicable within a group

and not between groups. Thus, a VPG with a high priority is allocated bandwidth before VPGs with lower priorities. VPGs

that are on VRAs with different VRA groups, for example, VPG1 is on VRA1 in group1 and VPG2 in on VRA2 in group2, do

not affect each other, as the priority is relevant only within each group.

4. Specify the following VRA Network Details:

Configuration – Either have the IP address allocated via a static IP address or a DHCP server. If you select the Static

option, which is the recommended option, enter the following:

Address – The IP address for the VRA.

Subnet Mask – The subnet mask for the network. The default value is 255.255.255.0.

Default Gateway – The default gateway for the network.

5. Click INSTALL.

The VRA installation starts and the status is displayed in either the TASKS popup dialog in the status bar or under

MONITORING > TASKS.

The VRA displayed name and DNS name is Z-VRA-hostname. If a virtual machine with this name exists, for example

when a previous VRA was not deleted, the VRA name has a number appended to it.