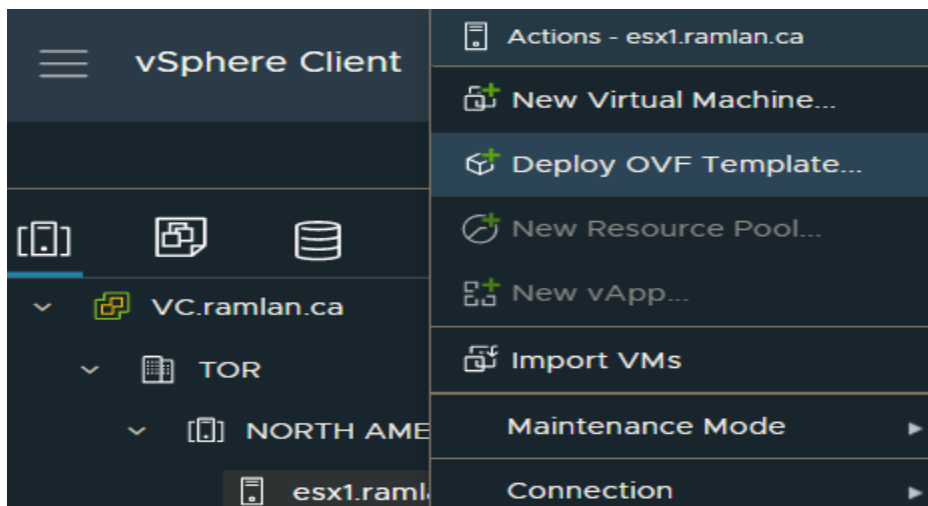


# How to install VMWare vSphere Replication v8.5.0 – 19282255

In this post, I am going to import OVA and complete the configuration of vSphere Replication. I am going to mount the ISO and then use the OVA file to import within vCenter.

| Name  | Date modified    | Type           | Size         |
|---|------------------|----------------|--------------|
| VMWare-vSphere Replication-8.5.0-19282255.iso | 20-Apr-2022 1... | WinRAR archive | 1,783,972 KB |

| Name                                 | Date modified     | Type      | Size         |
|--------------------------------------|-------------------|-----------|--------------|
| vSphere Replication AddOn OVF10.cert | 29-Jan-2022 5:... | CERT File | 2 KB         |
| vSphere Replication AddOn OVF10.mf   | 29-Jan-2022 5:... | MF File   | 1 KB         |
| vSphere Replication AddOn OVF10.ovf  | 29-Jan-2022 5:... | OVF File  | 329 KB       |
| vSphere Replication OVF10.cert       | 29-Jan-2022 5:... | CERT File | 2 KB         |
| vSphere Replication OVF10.mf         | 29-Jan-2022 5:... | MF File   | 1 KB         |
| vSphere Replication OVF10.ovf        | 29-Jan-2022 5:... | OVF File  | 374 KB       |
| vSphere Replication-support.vmdk     | 29-Jan-2022 5:... | VMDK File | 7,593 KB     |
| vSphere Replication-system.vmdk      | 29-Jan-2022 5:... | VMDK File | 1,122,920 KB |



- If you downloaded and mounted the vSphere Replication ISO image on a system in your environment, select **Local file** > **Browse** and navigate to the \bin directory in the ISO image, and select the vSphere\_Replication\_OVF10.ovf, vSphere\_Replication\_OVF10.cert, vSphere\_Replication\_OVF10.mf, vSphere\_Replication-system.vmdk, and vSphere\_Replication-support.vmdk files.

| Name                                 | Date modified     | Type      |
|--------------------------------------|-------------------|-----------|
| vSphere Replication AddOn OVF10.cert | 29-Jan-2022 5:... | CERT File |
| vSphere Replication AddOn OVF10.mf   | 29-Jan-2022 5:... | MF File   |
| vSphere Replication AddOn OVF10.ovf  | 29-Jan-2022 5:... | OVF File  |
| vSphere Replication OVF10.cert       | 29-Jan-2022 5:... | CERT File |
| vSphere Replication OVF10.mf         | 29-Jan-2022 5:... | MF File   |
| vSphere Replication OVF10.ovf        | 29-Jan-2022 5:... | OVF File  |
| vSphere Replication-support.vmdk     | 29-Jan-2022 5:... | VMDK File |
| vSphere Replication-system.vmdk      | 29-Jan-2022 5:... | VMDK File |

Deploy OVF Template

1 Select an OVF template

2 Select a name and folder

3 Select a compute resource

4 Review details

5 Select storage

6 Ready to complete

Select an OVF template

Select an OVF template from remote URL or local file system

Enter a URL to download and install the OVF package from the Internet, or browse to a location accessible from your computer, such as a local hard drive, a network share, or a CD/DVD drive.

URL

Local file

http | https://remoteserver-address/filetoinstall.ovf | .ova

UPLOAD FILES

5 files

CANCEL

NEXT

Deploy OVF Template

1 Select an OVF template

2 Select a name and folder

3 Select a compute resource

4 Review details

5 Select storage

6 Ready to complete

Select a name and folder

Specify a unique name and target location

Virtual machine name: vREF

Select a location for the virtual machine.

VC.ramlan.ca

TOR

CANCEL

BACK

NEXT

Deploy OVF Template

1 Select an OVF template

2 Select a name and folder

3 Select a compute resource

4 Review details

5 Select storage

6 Ready to complete

Select a compute resource

Select the destination compute resource for this operation

TOR

NORTH AMERICA

esx1.ramlan.ca

esx2.ramlan.ca

Compatibility

Compatibility checks succeeded.

CANCEL

BACK

NEXT

Deploy OVF Template

1 Select an OVF template

2 Select a name and folder

3 Select a compute resource

4 Review details

5 License agreements

6 Configuration

7 Select storage

8 Select networks

9 Customize template

10 Ready to complete

Review details

Verify the template details.

|               |  |
|---------------|--|
| Publisher     | VMware, Inc. (Trusted certificate)                       |
| Product       | vSphere Replication Appliance                            |
| Version       | 8.5.0.12277  |
| Vendor        | VMware, Inc.   |
| Description   | vSphere Replication Appliance                            |
| Download size | 742.1 MB   |
| Size on disk  | 1.6 GB (thin provisioned)<br>33.0 GB (thick provisioned) |

CANCEL

BACK

NEXT

Deploy OVF Template

1 Select an OVF template

2 Select a name and folder

3 Select a compute resource

4 Review details

5 License agreements

6 Configuration

7 Select storage

8 Select networks

9 Customize template

10 Ready to complete

License agreements

The end-user license agreement must be accepted.

Read and accept the terms for the license agreement.

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Last updated: 03 May 2021

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☒ I accept all license agreements.

CANCEL

BACK

NEXT

Deploy OVF Template

1 Select an OVF template

2 Select a name and folder

3 Select a compute resource

4 Review details

5 License agreements

6 Configuration

7 Select storage

8 Select networks

9 Customize template

10 Ready to complete

Configuration

Select a deployment configuration

|   |   |
|---|---|
| <input type="radio"/> 2 vCPU            | Description<br>Deploy the VM configured with 4 vCPU and 8 GB of RAM |
| <input checked="" type="radio"/> 4 vCPU |   |

CANCEL

BACK

NEXT

Deploy OVF Template

1 Select an OVF template

2 Select a name and folder

3 Select a compute resource

4 Review details

5 License agreements

6 Configuration

7 Select storage

8 Select networks

9 Customize template

10 Ready to complete

Select storage

Select the storage for the configuration and disk files

☐ Encrypt this virtual machine ⓘ

Select virtual disk format

Thin Provision

VM Storage Policy

Datastore Default

☐ Disable Storage DRS for this virtual machine

| Name             | Storage Compatibility | Capacity  | Provisioned | Free      | Type   | Cluster |
|------------------|-----------------------|-----------|-------------|-----------|--------|---------|
| DatastoreCluster | --                    | 999.75 GB | 26.47 GB    | 973.28 GB |        |         |
| ESX1DS           | --                    | 1.51 TB   | 365.68 GB   | 1.42 TB   | VMFS 6 |         |

2 items

Compatibility

✓ Compatibility checks succeeded.

CANCEL

BACK

NEXT

Deploy OVF Template

1 Select an OVF template

2 Select a name and folder

3 Select a compute resource

4 Review details

5 License agreements

6 Configuration

7 Select storage

8 Select networks

9 Customize template

10 Ready to complete

Select networks

Select a destination network for each source network.

| Source Network | Destination Network |
|----------------|---------------------|
| Network 1      | VM Network          |

1 item

IP Allocation Settings

IP allocation:Static - Manual

IP protocol:IPv4

CANCEL

BACK

NEXT

Customize template

Customize the deployment properties of this software solution.

✓ All properties have valid values

Application

6 settings

Enable SSHD

Determines whether the SSHD service will be enabled and started by default in the appliance.

☒

Initial root password

This will be used as an initial password for the root user account.

Password

.....

👁

Confirm Password

.....

👁

Initial admin user password

This will be used as an initial password for the admin user account.

Password

.....

👁

Confirm Password

.....

👁

CANCEL

BACK

NEXT

## Customize template



|                                |   |
|--------------------------------|---|
| NTP Servers                    | A comma-separated list of hostnames or IP addresses of NTP Servers.<br><input type="text" value="pool.ntp.org"/>                  |
| Hostname                       | The hostname for this VM. Leave blank to try to reverse lookup the IP address.<br><input type="text" value="vREP"/>               |
| File Integrity Flag            | This will be used as flag whether to enable file integrity.<br><input type="checkbox"/>   |
| ▼ Networking Properties        | 8 settings  |
| Host Network IP Address Family | Network IP address family (i.e., 'ipv4' or 'ipv6').<br><input type="text" value="ipv4"/>  |
| Host Network Mode              | Network mode (i.e., 'static', 'dhcp', or 'autoconf' (IPv6 only)).<br><input type="text" value="static"/>                          |
| Default Gateway                | The default gateway address for this VM. (from the IP Pool associated with the vSphere network mapped to the 'Network 1' network) |

CANCEL

BACK

NEXT

## Customize template



|  |  |
|--|--|
| <input type="text" value="192.168.0.1"/> |  |
| Domain Name                              | The domain name of this VM. (from the IP Pool associated with the vSphere network mapped to the 'Network 1' network)<br><input type="text" value="RAMLAN.CA"/>   |
| Domain Search Path                       | The domain search path (comma or space separated domain names) for this VM. (from the IP Pool associated with the vSphere network mapped to the 'Network 1' network)<br><input type="text"/>                         |
| Domain Name Servers                      | The domain name server IP Addresses for this VM (comma separated). (from the IP Pool associated with the vSphere network mapped to the 'Network 1' network)<br><input type="text" value="192.168.0.2,192.168.0.22"/> |
| Network 1 IP Address                     | The IP address for this interface.<br><input type="text" value="192.168.0.82"/>  |
| Network 1 Netprefix                      | The prefix for this interface.   |

CANCEL

BACK

NEXT

## Ready to complete



Review your selections before finishing the wizard

### ✓ Select a name and folder

|               |                           |
|---------------|---------------------------|
| Name          | vREP                      |
| Template name | vSphere_Replication_OVF10 |
| Folder        | TOR                       |

### ✓ Select a compute resource

|          |                |
|----------|----------------|
| Resource | esx1.ramlan.ca |
|----------|----------------|

### ✓ Review details

|               |          |
|---------------|----------|
| Download size | 742.1 MB |
|---------------|----------|

### ✓ Select storage

|                 |   |
|-----------------|---|
| Size on disk    | 1.6 GB                                    |
| Storage mapping | 1   |
| All disks       | Datastore: ESX1DS; Format: Thin provision |

### ✓ Select networks

CANCEL

BACK

FINISH

## Ready to complete



|           |   |
|-----------|---|
| All disks | Datastore: ESX1DS; Format: Thin provision |
|-----------|---|

### ✓ Select networks

|                 |            |
|-----------------|------------|
| Network mapping | 1          |
| Network 1       | VM Network |

### IP allocation settings

|               |                 |
|---------------|-----------------|
| IP protocol   | IPV4            |
| IP allocation | Static - Manual |

### ✓ Customize template

|            |   |
|------------|---|
| Properties | Enable SSHD = True<br>NTP Servers = pool.ntp.org<br>Hostname = vREP<br>File Integrity Flag = False<br>Host Network IP Address Family = ipv4<br>Host Network Mode = static<br>Default Gateway = 192.168.0.1<br>Domain Name = RAMLAN.CA<br>Domain Search Path =<br>Domain Name Servers = 192.168.0.2,192.168.0.22<br>Network 1 IP Address = 192.168.0.82<br>Network 1 Netprefix = 0 |
|------------|---|

CANCEL

BACK

FINISH

| Task Name           | Target         | Status | Details | Initiator                     | Queued For |
|---------------------|----------------|--------|---------|-------------------------------|------------|
| Deploy OVF template | NORTH AMERICA  | 0%     |         | VSPHERE.LOCAL\vpzd-extensi... | 5 ms       |
| Import OVF package  | esx1.ramlan.ca | 0%     |         | vsphere.local\Administrator   | 79 ms      |

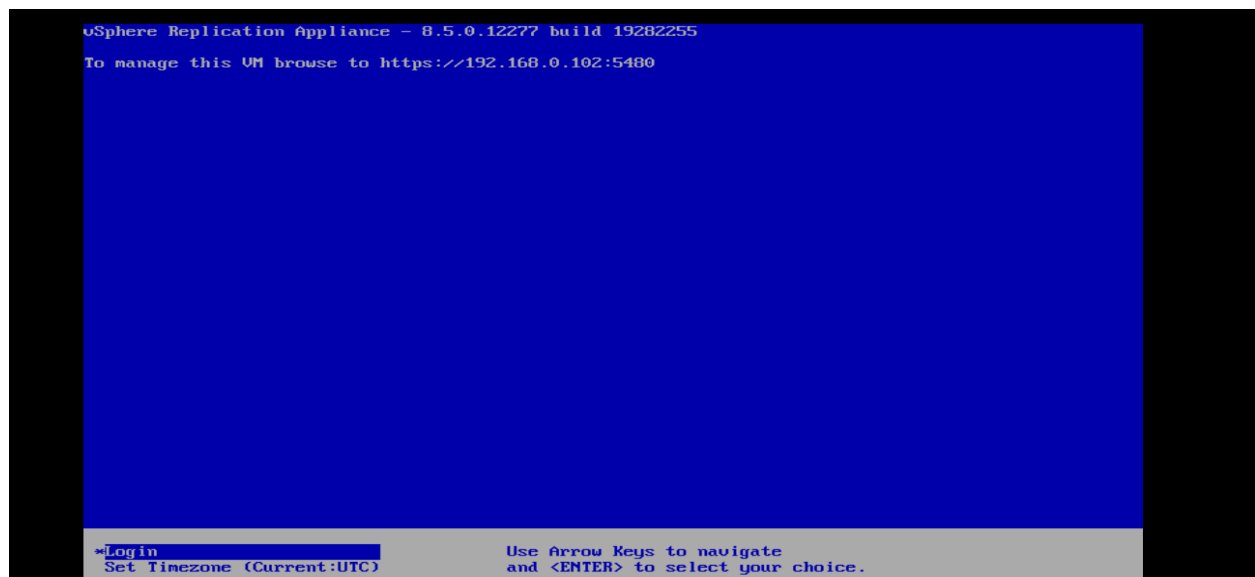
| Task Name           | Target         | Status | Details | Initiator                     | Queued For |
|---------------------|----------------|--------|---------|-------------------------------|------------|
| Deploy OVF template | NORTH AMERICA  | 51%    |         | VSPHERE.LOCAL\vpzd-extensi... | 5 ms       |
| Import OVF package  | esx1.ramlan.ca | 56%    |         | vsphere.local\Administrator   | 79 ms      |

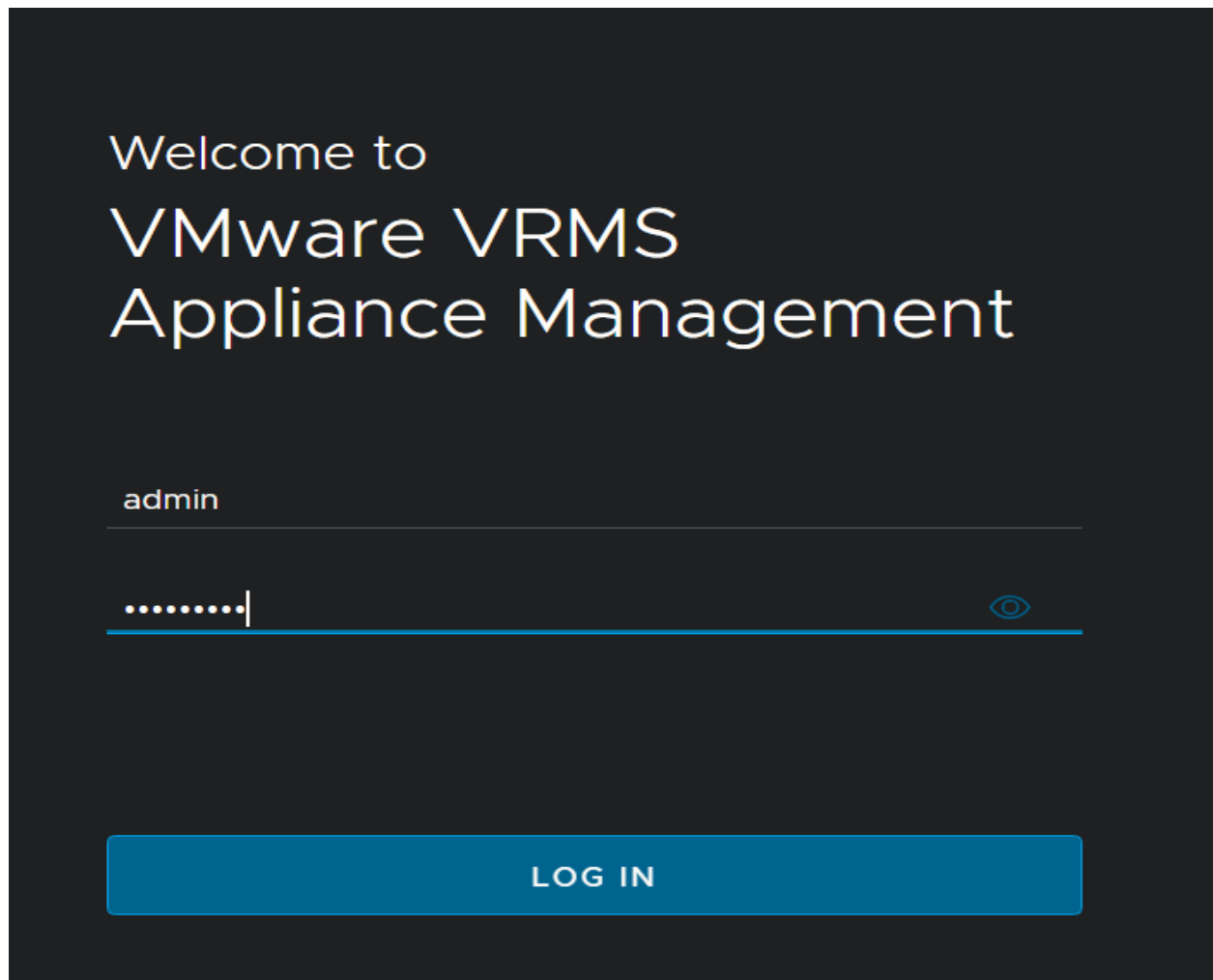
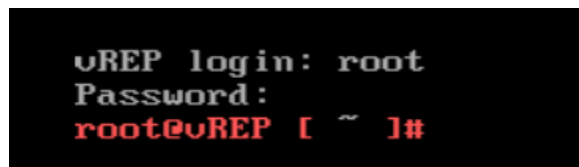
| Task Name           | Target         | Status | Details | Initiator                     | Queued For |
|---------------------|----------------|--------|---------|-------------------------------|------------|
| Deploy OVF template | NORTH AMERICA  | 100%   |         | VSPHERE.LOCAL\vpzd-extensi... | 5 ms       |
| Import OVF package  | esx1.ramlan.ca | 100%   |         | vsphere.local\Administrator   | 79 ms      |

Now we can Power On the machine and start other configurations.

```
[ OK ] Started Data caching daemon for rrdtool.
      Starting System Logging Service...
      Starting Generate sshd host keys...
      Starting D-Bus System Message Bus...
      Starting VMware DR virtual appliance One Shot System Configuration...
[ OK ] Started VGAuthService for open-vm-tools.
[ OK ] Started irqbalance daemon.
      Starting Login Service...
[ OK ] Started System Logging Service.
[ OK ] Started Network Name Resolution.
[ OK ] Reached target Host and Network Name Lookups.
[ OK ] Started D-Bus System Message Bus.
[ OK ] Started Login Service.
[ OK ] Started VMware DR virtual appliance One Shot System Configuration.
[ OK ] Reached target Network.
      Starting Log Insight Agent Updater...
      Starting Load Iptables Rules...
      Starting Log Insight Agent...
      Starting Permit User Sessions...
[ OK ] Started The plugin-driven server agent for reporting metrics into InfluxDB.
[ OK ] Reached target Network is Online.
      Starting LSB: Guest OS Initiatization Script...
[ OK ] Started Permit User Sessions.
[ OK ] Started Command Scheduler.
[ OK ] Started Generate sshd host keys.
[ OK ] Started OpenSSH Daemon.
Started bpfilter
[ OK ] Started Log Insight Agent Updater.
[ OK ] Started Load Iptables Rules.
[ OK ] Started Log Insight Agent.
      Starting Network Time Service...
[ OK ] Started Network Time Service.
[ OK ] Started LSB: Guest OS Initiatization Script.
      Starting LSB: Small Footprint CIM Broker Service...
```



Did change the time zone to EST





vmw VRMS Appliance Management

Summary

Monitor Disks

Access

Certificates

Networking

Time

Services

Update

Syslog Forwarding

RESTART

DOWNLOAD SUPPORT BUNDLE

STOP

|         |                               |
|---------|-------------------------------|
| Product | vSphere Replication Appliance |
| Version | 8.5.0                         |
| Build   | 19282255                      |

To start replicating virtual machines you must configure the vSphere Replication appliance and connect to a particular vCenter Server.

CONFIGURE APPLIANCE

Configure vSphere Replication

1 Platform Services Controller

2 vCenter Server

3 Name and extension

4 Ready to complete

Platform Services Controller

All fields are required unless marked (optional)

Enter the Platform Services Controller details for the vCenter Server for which you want to configure vSphere Replication.

PSC host name

VC.RAMLAN.CA

PSC port

443

User name

administrator@vsphere.local

Password

\*\*\*\*\*

Note: If prompted, you must accept the certificate for the configuration to proceed.

CANCEL

NEXT

Security Alert

!

Cannot validate the following security certificates:

Thumbprint for host VC.RAMLAN.CA

A1:FB:CF:0F:41:E3:2F:61:D8:51:2C:BE:FE:10:EE:A6:D7:98:10:53:84:11:59:1C:2A:7E:9A:7B:58:F3:77:05

Connect anyway?

CONNECT

CANCEL

Configure vSphere Replication

1 Platform Services Controller

2 vCenter Server


3 Name and extension

4 Ready to complete

vCenter Server

Select the vCenter Server for which you want to configure vSphere Replication.

vCenter Server


 VC.ramlan.ca

CANCEL

BACK

NEXT

Security Alert

 Cannot validate the following security certificates:

Thumbprint for host VC.ramlan.ca

A1:FB:CF:0F:41:E3:2F:61:D8:51:2C:BE:FE:10:EE:A6:D7:98:10:53:84:11:59:1C:2A:7E:9A:7B:58:F3:77:05

Connect anyway?

CONNECT

CANCEL

Configure vSphere Replication

1 Platform Services Controller

2 vCenter Server

3 Name and extension

4 Ready to complete

Name and extension

All fields are required unless marked (optional)

Enter name and extension for vSphere Replication

Site name

TORREP

A unique display name for this vSphere Replication site.

Administrator email

ram@ramlan.ca

An email address to use for system notifications.

Local host

vREP

The address on the local host to be used by vSphere Replication.

Extension ID

com.vmware.vcHms

Storage Traffic IP  
(Optional)

Must match one of the Appliance NIC IP addresses. If empty, an appliance IP will be used.

CANCEL

BACK

NEXT

### Configure vSphere Replication

1 Platform Services Controller

2 vCenter Server

3 Name and extension

4 Ready to complete

Ready to complete

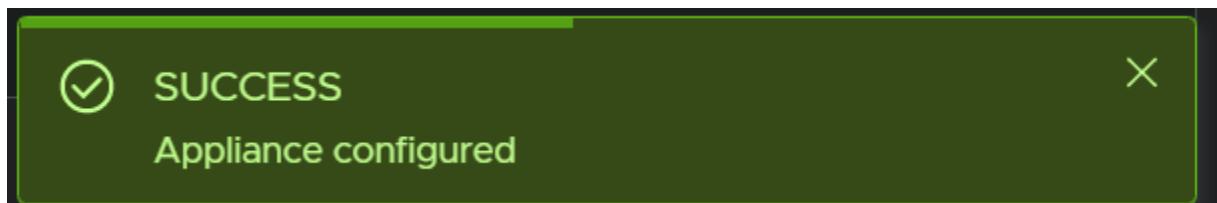
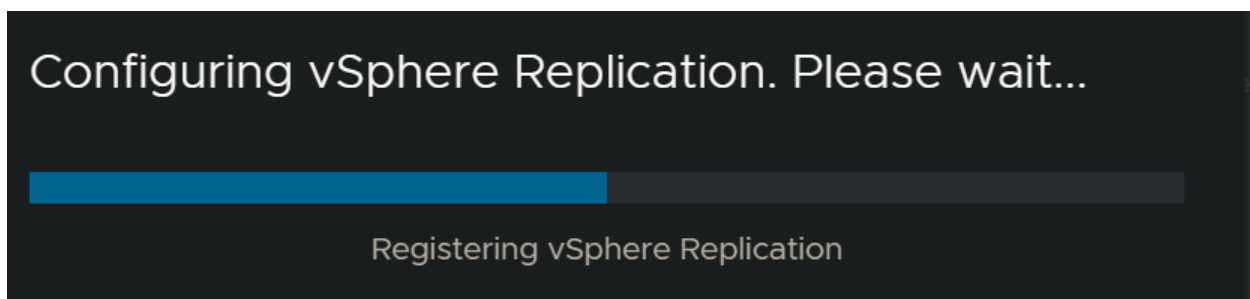
Review your settings before finishing the wizard.

|   |                  |
|---|------------------|
| Platform Services Controller            | VC.RAMLAN.CA     |
| vCenter Server                          | VC.ramlan.ca     |
| Site name                               | TORREP           |
| Extension ID                            | com.vmware.vcHms |
| Administrator email                     | ram@ramlan.ca    |
| Local host                              | vREP             |
| IP address for incoming storage traffic | Auto             |

CANCEL

BACK

FINISH



vmw VRMS Appliance Management

Summary

Monitor Disks

Access

Certificates

Networking

Time

Services

Update

Syslog Forwarding

RESTART

DOWNLOAD SUPPORT BUNDLE

STOP

|          |                               |
|----------|-------------------------------|
| Hostname | vREP                          |
| Product  | vSphere Replication Appliance |
| Version  | 8.5.0                         |
| Build    | 19282255                      |

RECONFIGURE

UNREGISTER

|   |   |
|---|---|
| Site name                               | TORREP  |
| Extension key                           | com.vmware.vcHms  |
| Platform Services Controller            | https://VC.RAMLAN.CA:443  |
| vCenter Server                          | VC.ramlan.ca  |
| Connection thumbprint                   | ⚠ A1:FB:CF:0F:41:E3:2F:61:D8:51:2C:BE:FE:10:EE:A6:D7:98:10:53:84:11:59:1C:2A:7E:9A:7B:58:F3:77:05 |
| IP Address for Incoming Storage Traffic | 192.168.0.102   |

CHANGE

| Summary           | Disk     | Partition | Description   | Utilization |
|-------------------|----------|-----------|---|-------------|
| Monitor Disks     | swap     | swap      | The swap partition is used when the physical memory (RAM) is full.  |             |
| Access            | boot     | boot      | The boot partition is a primary partition that contains the boot loader - a piece of software responsible for booting the operating system.                         |             |
| Certificates      | tmp      | tmp       | The tmp partition is a temporary filesystem that resides in a memory partition and/or a swap partition.   |             |
| Networking        | root     | root      | The root partition contains all system files, the VMware Site Recovery Manager installation and/or the vSphere Replication installation, and the embedded database. |             |
| Time              | support  | support   | The support partition contains the VMware Site Recovery Manager and/or the vSphere Replication logs and core dumps.   |             |
| Services          | logs     | logs      | The logs folder (or partition) contains the trace files generated by VMware running services.   |             |
| Update            | vrmsdb   | vrmsdb    | The vrmsdb partition contains the data used by the VRMS service.  |             |
| Syslog Forwarding | heapdump | heapdump  | The heapdump partition is used as a support place of running the VRMS service.  |             |
|                   |          |           |   | 8 Disk(s)   |

| Summary       | Password   |
|---------------|--|
| Monitor Disks | VRMS appliance password The password for the account that you are currently logged in with. <a href="#">CHANGE</a> |
| Access        | SSH <a href="#">DISABLE</a>  |
| Certificates  |  |
| Networking    | SSH login Enabled  |

| Summary           | Network Settings                       | EDIT |
|-------------------|--|------|
| Monitor Disks     | Hostname vREP                          |      |
| Access            | DNS Servers 192.168.0.2, 192.168.0.22  |      |
| Certificates      | eth0                                   |      |
| Networking        | Status UP                              |      |
| Time              | MAC Address 00:50:56:b0:ed:f0          |      |
| Services          | IPv4 Address 192.168.0.102 / 24 (DHCP) |      |
| Update            | IPv4 Default Gateway 192.168.0.1       |      |
| Syslog Forwarding |  |      |

| Summary           | Time zone                                      | EDIT |
|-------------------|--|------|
| Monitor Disks     | Time zone America/Toronto                      |      |
| Access            |  |      |
| Certificates      |  |      |
| Networking        |  |      |
| Time              | Time synchronization                           | EDIT |
| Services          | Mode NTP                                       |      |
| Update            | NTP Servers pool.ntp.org                       |      |
| Syslog Forwarding | Current appliance time Apr 22, 2022 2:44:58 PM |      |

This completes VMWare vSphere Replication Appliance.

Thanks

Ram

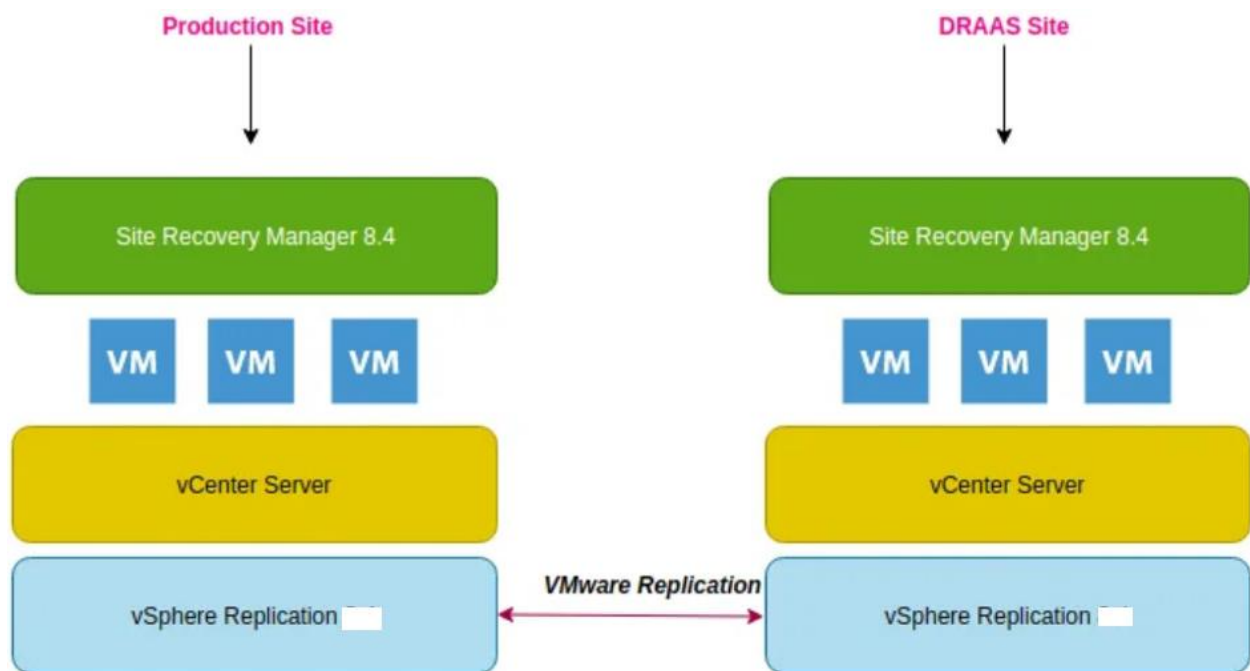
22<sup>nd</sup> Apr 2022

**NOTE: In order to use Replication Appliance, you will need VMWare Site Recovery Manager Appliance + you have to create TWO sites (Production and Disaster Recovery) so the replication of VM's can be done at DR site. For home lab you will need the following:**

**2 vCenters (Production and DR)**

**2 Replication Appliance (Production and DR)**

**2 Site Recovery Manager Appliance (Production and DR)**



For home lab you can go with this configuration for the VM's

| VM                  | Version | vCPU | Memory GB | Storage | Quantity |
|---------------------|---------|------|-----------|---------|----------|
| vCenter             | 7.0 U1  | 2    | 10        | 100GB   | 1        |
| SRM Manager         | 8.4     | 2    | 8         | 60 GB   | 2        |
| vSphere Replication | 8.4     | 2    | 8         | 60 GB   | 2        |

With vSphere Replication, you can configure the replication of a virtual machine from a source site to a target site, monitor and manage the status of the replication, and recover the virtual machine at the target site.

In a typical vSphere Replication installation, the local site provides business-critical data center services. The remote site is an alternative facility to which you can migrate these services.

The local site can be any site where vCenter Server supports a critical business need. The remote site can be in another location, or in the same facility to establish a redundancy. The remote site is typically located in a facility where environmental, infrastructure, or other disturbances are unlikely to occur and affect the local site.


vSphere Replication has the following requirements for the vSphere® environments at each site:



- Ensure that each site has at least one data center.
- Ensure that the remote site has hardware, network, and storage resources that can support the same virtual machines and workloads as the local site.
- Ensure that the sites are connected by a reliable IP network.
- Ensure that the remote site accesses networks (public and private) comparable to the ones on the local site. It is not necessary for them to be in the same range of network addresses.

When everything is configured properly you will see this screen when you open Site Recovery from vCenter.

### Site Recovery

Local vCenter Server instances with installed vSphere Replication or Site Recovery Manager are displayed below. If you want to see more details, use the Open button. The Site Recovery application opens in a new browser tab.

 VC.ramlan.ca

|  |                 |   |
|--|-----------------|---|
| ▼ vSphere Replication                  | ✓ OK            | CONFIGURE  |
| Server                                 | REP             |   |
| Version                                | 8.5.0.19237281  |   |
| Currently serving Site Recovery client |                 |   |
| ▼ Site Recovery Manager                | ✓ OK            | CONFIGURE  |
| Server                                 | vSRM            |   |
| Version                                | 8.5.0.18710000  |   |
| ID                                     | com.vmware.vcDr |   |

OPEN Site Recovery 