



replify

FLEXIBLE NETWORK ACCELERATION

Replify Accelerator Installation Guide

Version 6.1.0

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1 About Replify Accelerator

Replify Accelerator is a software-based WAN Acceleration product suite. Its purpose is to provide application acceleration over Wide Area Networks by reducing the bandwidth used by applications and improving their responsiveness for end users.

Acceleration is achieved using several techniques:

- Compression – All data between Accelerator components is compressed.
- De-duplication – Data between Accelerator components is analysed and stored in a local cache. If data is re-sent, Replify Accelerator can replace with a cache reference that uses much less bandwidth than the original data.
- Protocol Optimization – Extra optimizations are available for commonly used protocols such as HTTP and SMB.
- TCP Optimization – When using links with high levels of latency or packet loss, TCP connections can be re-used and control congestion using an algorithm more suited to the WAN environment.

There are two optimization components in Replify Accelerator:

- Replify Virtual Appliance
- Replify Accelerator Client

Additionally, the Replify Enterprise Manager is also available. This provides extra capabilities around reporting and licensing which may be beneficial for larger deployments.

1.1 Replify Virtual Appliance

The Virtual Appliance is a mandatory component of any Replify Accelerator deployment. This should be installed as close as possible in network terms to any services that are to be optimized. Any traffic to be optimized across the WAN will be processed by the appliance.

The Virtual Appliance can be connected to other Virtual Appliances or to Accelerator Clients. More information is available below.

The Virtual Appliance will be configured with Application Servers. Application Servers define the services that should be optimized across the WAN and the specific optimizations that should be applied for each of these.

1.1.1 Remote Virtual Appliance

An alternative use for a Virtual Appliance is to act as a gateway on the remote side of the network for all traffic that requires optimization. This appliance will communicate with the

remote Virtual Appliance regarding optimizations that need applied. Local network traffic routed via this appliance that is destined for Application Servers defined on the remote appliance will be accelerated across the WAN.

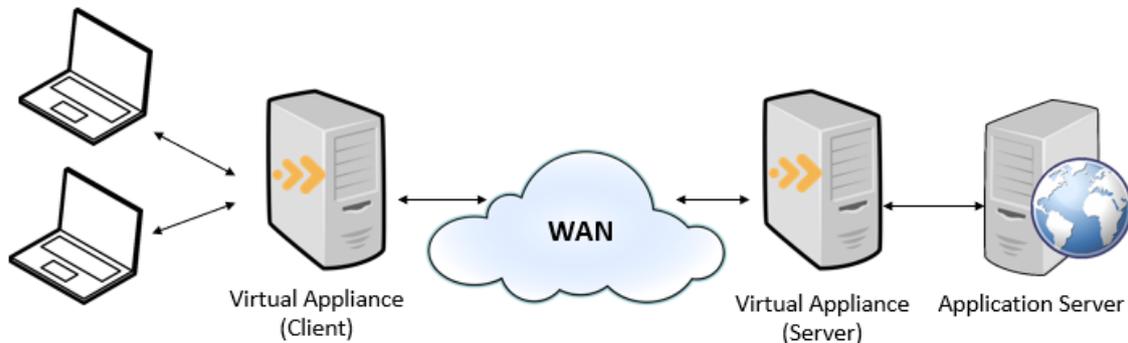


Figure 1: Peered Appliance Deployment

1.2 Replify Accelerator Client

The Replify Accelerator client can be installed on end user devices and connects to a remote Virtual Appliance. The client contains the same core optimization capabilities as an appliance but is packaged differently so that it can be installed on client operating systems.

The client intercepts locally generated traffic. Any traffic destined for an IP that has been defined as an application server on the remote appliance will then be accelerated across the WAN.

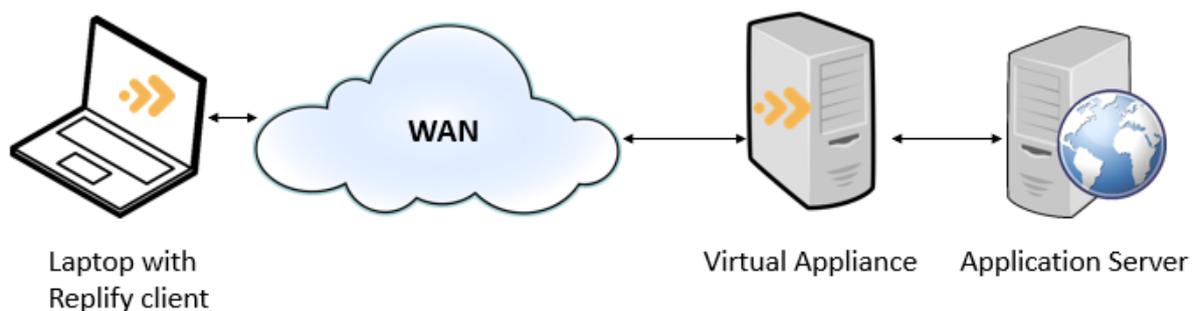


Figure 2: Replify Accelerator Client Deployment

1.3 Replify Enterprise Manager

The Replify Enterprise Manager is an optional component that can be installed in larger Replify Accelerator deployments. This can be used to aggregate statistics from multiple virtual appliances, licence multiple appliances and communicate details of Replify Virtual Appliances to Accelerator Clients.

2 Installing the Virtual Appliance

The Virtual Appliance has been packaged for various deployment platforms and works the same way on each.

2.1 Resources

[Replify Support](#) should be contacted to get details of the resources that should be made available to the appliance. For small scale testing purposes, a machine with 2 vCPUs, 2GB RAM and the supplied hard disk should be sufficient.

It is assumed that one network interface will be enough for the Virtual Appliance. If a more complex configuration is required contact Replify Support.

2.2 VMWare ESX/ESXi

An appliance can be installed on VMWare ESX/ESXi using an OVF file. The VMDK file is also available if you wish to create a VM using your own custom settings.

Additional disk space can be added to the appliance by adding a new virtual disk to the VM and restarting. The existing disk should not be resized.

2.3 Hyper-V

The Hyper-V image is supplied in a zip file. When this is extracted, the contents can be imported using Hyper-V manager.

The VM has no network connectivity by default. The Virtual Machine's network adaptor should be connected to a Virtual Switch before starting the VM.

Additionally, the network adaptor should be configured to use a static MAC address.

Additional disk space can be added to the appliance by adding a new virtual disk to the VM and restarting. The existing disk should not be resized.

2.4 KVM/QEMU/Proxmox

The Virtual Appliance is supplied as a QCOW2 image that can be used as the hard disk in a standard image. See the resources section above for details of RAM/CPUs/network etc.

2.5 Docker

The Virtual Appliance is supplied as a Docker container. See <https://hub.docker.com/u/replifyltd/> for details on how this can be deployed.

2.6 Debian Linux

The Virtual Appliance is supported on Debian v9 (Stretch) or later. This can be installed from the public Debian repository. To install the package, run the following commands (as the root user)

```
apt-get update
apt-get install gpg2 curl
curl https://www.replify.com/replify.gpg | sudo apt-key add -
echo "deb http://packages.replify.com/shark/ binary/" >
/etc/apt/sources.list.d/replify.list
apt-get update
apt-get install replify-accelerator
```

2.7 Raspbian

The Virtual Appliance is supported on Raspbian v10 or later. This can be installed using the instructions above for Debian Linux.

2.8 Cloud Platforms

Replify Accelerator can be installed on any cloud platform that supports Debian Linux images. Create a Debian Linux v9 (Stretch) image or later and follow the instructions for a Debian Linux installation.

2.9 Authentication

The Virtual Appliance exposes a web interface. The default credentials of this are

- Username: admin
- Password: default

On Debian Linux installations you can login with user root and the root password or with any native Linux user that is part of the replify OS group.

2.10 Firewall

The Virtual Appliance needs to be accessible across the WAN on TCP ports 32896,32897 and port 32443.

3 Installing the Replify Accelerator Client

The Replify Accelerator Client can be downloaded from the User Interface of either the Replify Virtual Appliance or the Replify Enterprise Manager.

3.1 Windows

The Accelerator Client is provided as an MSI file. The following MSI properties are available:

- VA_ADDRESS – IP of a VA that the client should connect to on startup
- REM_ADDRESS – IP or a REM that the client should connect to on startup

A configuration application will be installed within the Start Menu.

3.2 MacOS

The MacOS client is supplied as an installation package within a DMG file.

Before installing, check the Security & Privacy settings and ensure that you have allowed apps to be downloaded from App Store and identified developers. The Replify Accelerator client application has not been notarized, so extra configuration steps will be required to install it. See <https://support.apple.com/en-us/HT202491> for more information on installation of un-notarized applications.

The application will be installed in the Applications folder.

3.3 Ubuntu Linux

The Ubuntu client is supplied as a Debian package that can be installed from the Ubuntu Software Centre.

3.4 Android

The Android client is supplied as an APK file.

Before installing, check that the “allow installation from unknown sources” setting is enabled in security settings.

4 Installing the Replify Enterprise Manager

The Enterprise Manager has been packaged for various deployment platforms and works the same way on each.

Note: The Enterprise Manager is an optional component in most Replify Accelerator deployments. It is not required for application acceleration.

4.1 Resources

[Replify Support](#) should be contacted to get details of the resources that should be made available to the appliance. For small scale testing purposes, a machine with 1 vCPU, 512MB RAM and the supplied hard disk should be sufficient.

Only one network interface needs to be made available for the Enterprise Manager

4.2 VMWare ESX/ESXi

An appliance can be installed on VMWare ESX/ESXi using an OVF file. The VMDK file is also available if you wish to create a VM using your own custom settings.

4.3 Hyper-V

The Hyper-V image is supplied in a zip file. When this is extracted, the contents can be imported using Hyper-V manager.

The VM has no network connectivity by default. The Virtual Machine's network adaptor should be connected to a Virtual Switch before starting the VM.

Additionally, the network adaptor should be configured to use a static MAC address.

4.4 KVM/QEMU/Proxmox

The Enterprise Manager is supplied as a QCOW2 image that can be used as the hard disk in a standard image. See the resources section above for details of RAM/CPUs/network etc.

4.5 Docker

The Enterprise Manager is supplied as a Docker container. See <https://hub.docker.com/u/replifyltd/> for details on how this can be deployed.

4.6 Debian Linux

The Enterprise Manager is supported on Debian v9 (Stretch) or later. This can be installed from the public Debian repository. To install the package, run the following commands (as the root user)

```
apt-get update
apt-get install gpg2 curl
```

```
curl https://www.replify.com/replify.gpg | sudo apt-key add -  
echo "deb http://packages.replify.com/shark/ binary/ " >  
/etc/apt/sources.list.d/replify.list  
  
apt-get update  
  
apt-get install replify-mgr
```

4.7 Cloud Platforms

Replify Accelerator can be installed on any cloud platform that supports Debian Linux images. Create a Debian Linux v9 (Stretch) image or later and follow the instructions for a Debian Linux installation.

4.8 Authentication

The Enterprise Manager exposes a web interface. The default credentials of this are

- Username: admin
- Password: default

On Debian Linux installations you can login with user root and the root password or with any native Linux user that is part of the replify OS group.

4.9 Firewall

The Enterprise Manager needs to be accessible across the WAN on TCP ports 32899 and 32890.

5 Post-Installation

After the product is installed, configuration can be performed using the web interface that is exposed on the server, container or Virtual Machine.

A user guide giving full details of product functionality can be downloaded from the help section of the user interface.

A quick start guide to get a deployment up and running is also available at <https://www.replify.com/resources/>