

## Enterprise Implementation

# Accelerate WAN Access for Mobile Devices

Use Reptor, a virtual appliance based WAN accelerator from Replify, to speed up WAN access for your mobile work force

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One major issue with a WAN accelerator is that both or all ends of WAN have to be equipped with a WAN accelerator appliance/device. So if I want to accelerate the connectivity between my WAN and my mobile users, then this traditional technique fails.

What's needed here is a software WAN accelerator which can sit directly on top of laptops and enhance the connectivity experience of mobile users. This kind of a setup will be very useful for those having a mobile task force connecting over a slow link such as GPRS or dialup to the datacenter for accessing or submitting information. This resolves one more key challenge of WAN accelerators -its configuration. The solution can be configured in less than an hour and you can get the benefits instantly. It is called REPTOR from Replify. In this story we will see how to deploy and use it and the kind of performance enhancement it provides in different situations.

### What is REPTOR?

REPTOR is essentially a WAN Acceleration Suite. It includes a REPTOR WAN acceleration appliance -which is essentially a virtual appliance for VMWare, and an Enterprise Manager, again a VMWare appliance to manage a large REPTOR Accelerator deployment with many such appliances and clients. It also has a client which gets installed on client machines from where you can connect to your services through the acceleration appliance. Please see the 'test Setup' diagram to understand it better.

### How to Deploy

The best thing about this suite is that it hardly takes an hour to configure the complete setup once you get the virtual appliances. All you require is a machine with VMWare server or VMWare ESX Server installed. For our evaluation, we downloaded the 30-day trial version of the REPTOR appliance for VMWare Server. The 120 MB zipped file, after extraction will give you a VMWare virtual disk of around 1.5 GB. You can download it from the link given in the 'Direct Hit' box.

Before downloading it, you have to build the machine to run the appliance. Take any server class machine (for reliability and performance, else it can easily be run on a standard desktop as well) with

### DIRECT HIT!

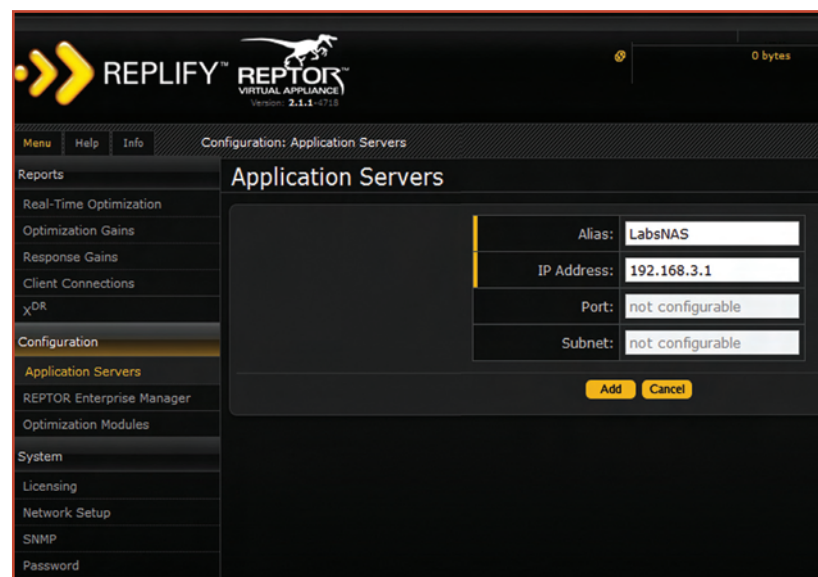
**Applies To:** WAN Administrators

**USP:** Setup a WAN accelerator in less than an hour

**Primary Link:** [www.replify.com](http://www.replify.com)

**Keyword:** Reptor + Replify

at least 1 GB RAM. We used it on VMWare Server. You can also install it on VMWare ESX Server which comes along a stripped down Linux distro customized for the platform to run. The machine should be connected to the network where all your production servers run, so that this appliance can detect them. If you are running



Adding a new server in the acceleration pool is as simple as filling a form with the IP address of the server and a desired name. ▶

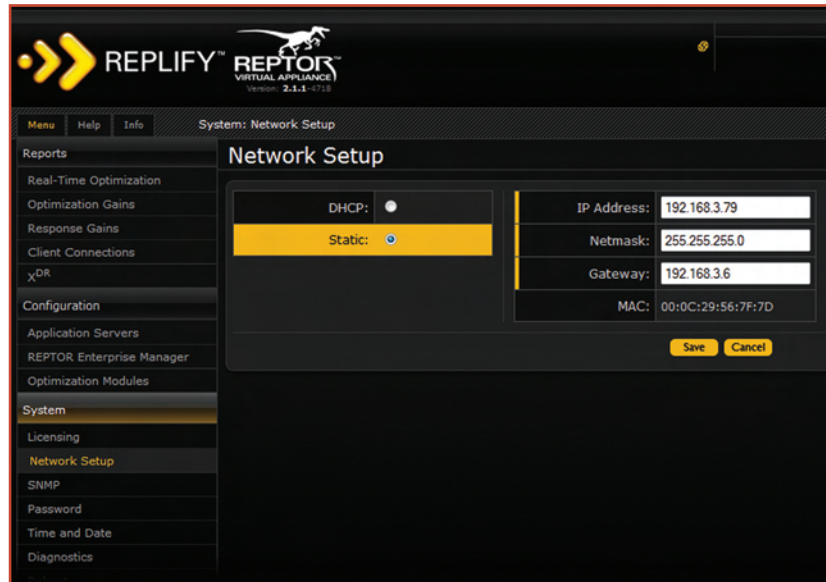
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it on a DHCP network then your configuration time will even be reduced further.

Now download and extract the appliance and copy it to the machine where you have installed VMWare Server. Just double click on the VMWare configuration file called Replify-REPTOR-Appliance-2.1.1-4718.vmx. It will automatically read the settings and virtual disks and will create the Virtual machine for this. All you need to do is to set the desired network card for the appliance if you have a machine with multiple network cards. Once done, boot the virtual machine. The welcome screen will show you the IP address which it has taken from the DHCP server. Now you can go to any machine on the same network which has a browser (either IE7 or Firefox), and enter the IP address which you see on the welcome screen of the REPTOR virtual appliance. This will open up the configuration page for the appliance.

### Configuring it

Configuring it is simple and easy. Any-



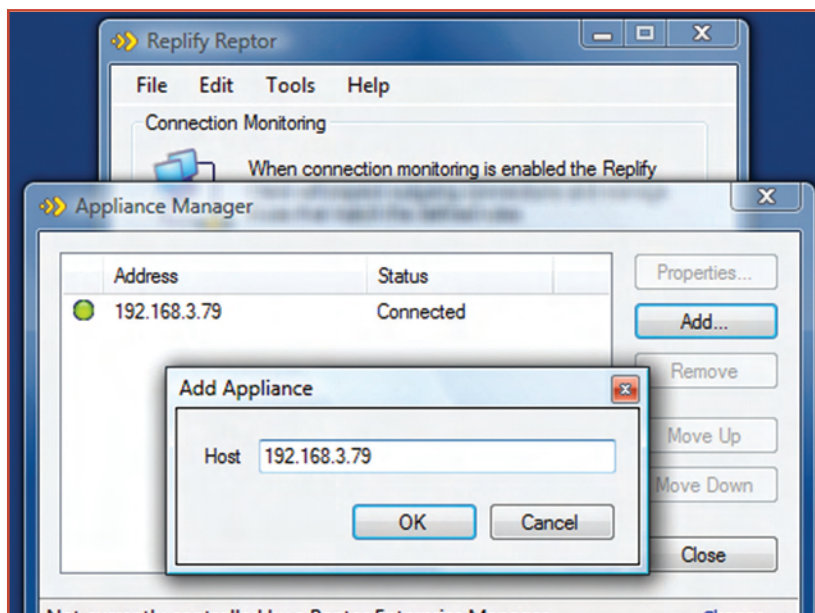
To give this appliance an IP address, open this screen from system menu, select the 'Static radio' button and then fill in the desired IP, subnet and gateway.

one with little networking knowledge can configure it.

All you have to do is to login to its Web based configuration page by providing the username as 'admin' and password as 'default' and go to the 'Configuration'

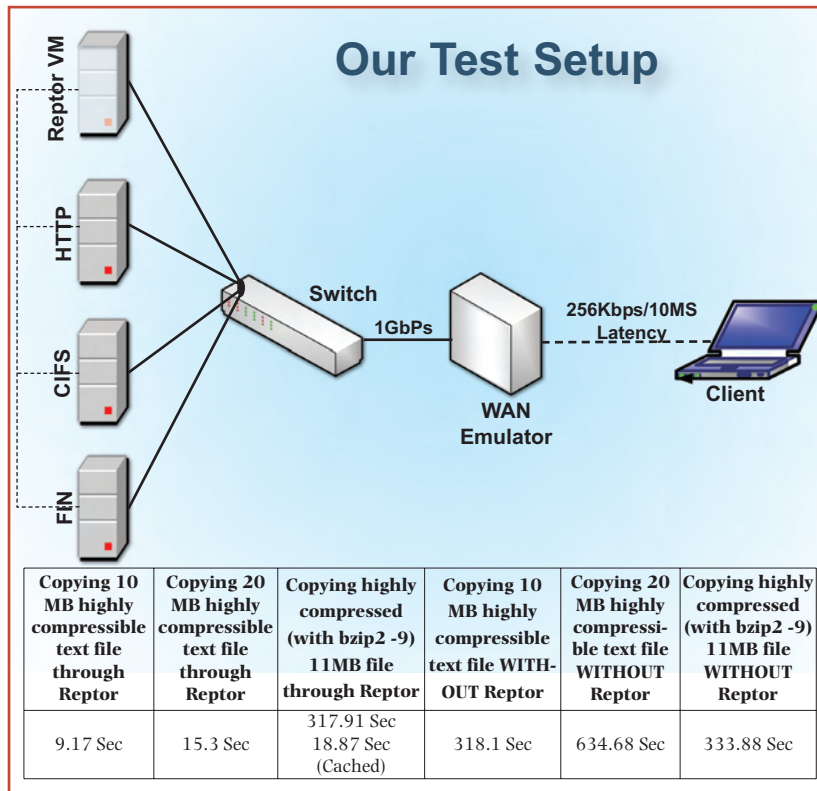
link at the left side of the page. Clicking on this link will drop a list. From here click on the link which says 'Application Servers'. A new page will open. Here you will see an 'Add' button. Click on this and a form will open. Enter the IP address of the server you want to accelerate the connectivity of. Give it a suitable name in the 'Alias' box, and click on 'Add'. Now you can add as many servers as you want and these servers can be Http/s, FTP or CIFS.

If you want to connect to your application servers through this WAN accelerator over the Internet, you have to provide a static IP to the appliance and NAT the IP to a public IP. This will make sure that it can be reached over the internet. To give this box a static IP, go to Systems Network Setup link. Select 'Static IP' radio button, fill in the desired IP, subnet and gateway address and save the page. Your WAN accelerator is configured now. The only thing left is to configure the clients. That is even simpler. For this you have to download the client application from >



Once the client application is installed on the machines, all you have to do is feeding in the IP address of the acclerator to activate it.

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For testing this appliance, we connected a network of servers through the accelerator over an emulated 256 Kbps WAN with 100 milliseconds latency.

<http://tinyurl.com/5ef77z> and install it on all machines from where you want to connect to the servers through this accelerator.

Once downloaded and installed, it will start automatically and sit in your system tray. Double click on it to open the application. Now click on 'Edit' menu and select 'Appliance' option. This will popup a window. Here you can add the IP address of your WAN accelerator appliance. Once you enter it, your client is ready.

### Performance

To check the performance of the appliance, we ran a set of tests. The tests were pretty simple. We took three files, one 10 MB and one 20 MB highly compressible text file, and a highly compressed 11MB file. The highly compressed file was cre-

ated by using the bzip2 -9 commands.

Then, we emulated a WAN with 256Kbps of bandwidth and 100ms latency. We connected the servers and WAN accelerator at one end of the WAN emulator and a Windows XP machine at the other. See the diagram for more information. Then we started copying the three files from the servers to the client over different protocols such as CIFS, HTTP, FTP, etc.

First we tried copying the highly compressible text file of 10MB size. It took around 9.17 seconds, and copying the same file without the appliance took around 318.1 seconds, so you can see more than 300% acceleration.

This is good. We then tried copying an 11MB highly compressed file through the accelerator and it took around 317 seconds, which is

obvious as there was no scope of compression left for the device. The file took near about the same amount (around 333 seconds) of time while copied without the accelerator.

When we tried copying the same file through the accelerator for the second time it took just 18 seconds, showing its caching capabilities.

### Pricing

The pricing of the product is interesting. The company sells License as bundles, starting from a base package of 10 clients/Reptor appliances, moving up to bundles for 100,000 users.

The package bundle does not distinguish between clients or REPTOR appliances. For example, if you purchased the 100 bundle, you could decide to deploy 10 Reptor appliances and 90 clients, or 30 Reptor Appliances and 70 clients, or whatever combination you like. You can also change the mix anytime.

You can also deploy as many clients and REPTOR appliances as you like, but as in the example above only the first 100 to register will be optimized. All additional installs will connect into the system but will not be optimized.

There is no fixed pricing for the licensing and the amount will completely depend on the number of licenses you purchase. So for instance the price for 10 licenses will be US\$9,570 but the price for 100 licenses will be reduced and cost you somewhere around \$3,500.

### Final Verdict

If you see the ease of configuration and performance against pricing, it is a brilliant product. On top of it, the licensing model is versatile making it suitable for setups such as BPOs, test centers, etc. □