



**EXCELERATOR 2.2**

***Media Excelerator 1.2 for RealSystem Proxy 8  
Startup Guide***

## Legal Notices

Volera, Inc. makes no representations or warranties with respect to the contents or use of this documentation, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Volera, Inc. reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Volera, Inc. makes no representations or warranties with respect to any software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Volera, Inc. reserves the right to make changes to any and all parts of Volera software, at any time, without any obligation to notify any person or entity of such changes.

This product may require export authorization from the U.S. Department of Commerce prior to exporting from the U.S. or Canada.

This product is Certified RealSystem<sup>®</sup> Powered by RealNetworks.

Copyright © 1997-2002 Volera, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of the publisher.

U.S. Patent Nos. 5,870,739; 5,873,079; 5,884,304; 6,330,605. U.S. and Foreign Patents Pending.

Volera, Inc.  
2211 North First Street  
San Jose, CA 95131-2021  
U.S.A.

[www.volera.com](http://www.volera.com)

Volera Media Excelerator 1.2 for RealSystem Proxy 8 Startup Guide  
July 2002

**Online Documentation:** To access the online documentation for this and other Volera products, and to get updates, see [www.volera.com](http://www.volera.com).

## **Volera Trademarks**

Volera is a registered trademark of Volera, Inc. in the United States and other countries.

## **Third-Party Trademarks**

All third-party trademarks (indicated by asterisks [\*]) are the property of their respective owners.



# Contents

	<b>About This Guide</b>	<b>7</b>
<b>1</b>	<b>Installing Media Excelerator for RealProxy 8</b>	<b>9</b>
	Purchasing a RealProxy 8 License . . . . .	9
	Installing the Activation License from Floppy Disk . . . . .	9
	Installing the Activation License Using FTP . . . . .	9
	Installing Media Excelerator Patches . . . . .	10
	Downloading the Latest Patches . . . . .	10
	Updating the Appliance's Backup System Image . . . . .	11
	Backing Up Your License . . . . .	11
<b>2</b>	<b>Starting and Configuring RealProxy 8</b>	<b>13</b>
	About Starting RealProxy 8 . . . . .	13
	Setting up RealProxy 8 Forward Proxy Services. . . . .	13
	Creating the Service . . . . .	13
	Configuring RealPlayer . . . . .	14
	Setting up RealProxy 8 as a Transparent Proxy . . . . .	14
	Creating the Service . . . . .	14
	Using QuickTime and RealProxy Services Together . . . . .	15
	Configuring RealProxy 8 as a Media Server Accelerator . . . . .	16
	Configuring Features Specific to RealProxy 8 . . . . .	19
	Editing the RealProxy Configuration File. . . . .	19
	Configuring Hierarchical Proxies (Proxy Routing) . . . . .	20
	Removing Services. . . . .	20
	Troubleshooting . . . . .	20
	RealProxy Documentation . . . . .	21



# About This Guide

This guide provides instructions for installing and configuring the Volera<sup>®</sup> Media Excelerator<sup>™</sup> (v1.1) for RealProxy 8.

This product is Certified RealSystem<sup>®</sup> Powered by RealNetworks. This ensures that this Media Excelerator product delivers a quality of experience to the user that is commensurate with the experience of being connected directly to a RealSystem<sup>®</sup> Server. Because Media Excelerator for RealProxy 8 is certified by RealNetworks, the user can be assured of both consistent and high quality.

For information about Volera Excelerator<sup>™</sup> 2.2, see the [Volera Excelerator 2.2 Administration Guide](#).

For technical support for this and other Volera products, go to the Volera support web site (<http://www.volera.com/support>).

NOTE: The term *appliance* as used in this guide refers to both appliances from Volera partners as well as Volera-approved hardware, including server-class machines.



# 1

## Installing Media Excelerator for RealProxy 8

### Purchasing a RealProxy 8 License

If you have not received the appropriate license file(s), please contact Volera Customer Service at 1-800-587-2900 in the U.S.A. or 1-800-4686-5372 internationally.

### Installing the Activation License from Floppy Disk

Complete the following steps:

- 1 Insert the floppy disk containing the license files that you purchased and downloaded in the appliance's floppy disk drive.

For more information, see [“Purchasing a RealProxy 8 License” on page 9](#).

- 2 At the system prompt, enter:

```
importlicense floppy
```

- 3 Remove the diskette and restart the appliance.
- 4 Continue with [“Installing Media Excelerator Patches” on page 10](#).

### Installing the Activation License Using FTP

If you have not used an FTP connection to manage your appliance, you should review the information in the [FTP Services](#) chapter in the [Volera Excelerator 2.2 Administration Guide](#).

Complete the following steps:

- 1 Launch your FTP application and enter an appliance IP address that is enabled for FTP access.  
  
For help with enabling FTP access, see [Setting Up Appliance FTP Services](#) in the [Volera Excelerator 2.2 Administration Guide](#).
- 2 Log into the appliance using the Config username.
- 3 If you have set a Config username password, enter it when prompted. Otherwise, press Enter.
- 4 FTP the license files from your workstation to the default directory on the appliance.
- 5 Enter `importlicense` at the command line.  
  
The licenses will be imported. You must restart the appliance for the changes to take affect.
- 6 Continue with [Installing Media Excelerator Patches](#).

## Installing Media Excelerator Patches

Complete the steps in the following sections for each appliance on which you are installing Media Excelerator.

### Downloading the Latest Patches

IMPORTANT: Volera provides URLs to the latest product patches with each license purchased. The URLs must be applied in the order listed in the Thank You page and in the confirmation e-mail.

You must always install all product patches before configuring and using an Excelerator product.

Complete the following steps:

- 1 In the browser-based tool, click System > Upgrade and check Enable Download.
- 2 In the Install from URL field, type the first Download URL received on the Thank You page and in the confirmation e-mail.  
  
For more information, see [“Purchasing a RealProxy 8 License” on page 9](#).
- 3 Double check the URL to ensure you typed it correctly.
- 4 Click the Download Time drop-down list and select the time you want the download to occur.

- 5 Check Enable Install.
- 6 Click Install Time drop-down list and select the time you want the upgrade installed.
- 7 Click Apply.

The upgrade process always restarts the appliance, temporarily disconnecting the browser-based tool.

- 8 After the appliance restarts, reconnect to the appliance using the browser-based management tool and repeat this process for any other URLs received on the Thank You page and in the confirmation e-mail.
- 9 After all product patches have been applied, continue with [Updating the Appliance's Backup System Image](#).

## Updating the Appliance's Backup System Image

You should update the appliance's clone image as soon as possible after completing an upgrade.

- 1 Reconnect to the appliance using the browser-based management tool.
- 2 Click System > Actions > Update Clone > Update Clone.

This prevents the system from being overwritten by an earlier version.

## Backing Up Your License

After downloading the RealProxy 8 license, you should save a backup copy.

Complete the following steps:

- 1 Insert a blank, formatted floppy disk in the appliance's diskette drive.
- 2 At the system prompt, enter the following command:

```
exportlicense floppy
```

- 3 Remove the diskette.

The **exportlicense** command will move the license to the default FTP directory with a .lcx extension. You can also use the FTP Put command to move the license into the default directory. To remove licenses completely, enter **get license ?** at the Excelerator appliance command line to list all the currently installed licenses. Then enter **remove license = [name**

**of license]**. The message will appear: "Success. License has been removed. You must restart to reload licenses."

If you are adding an EXALL license that is higher in memory than your current license, then you must delete your smaller license. If you are using a tier upgrade license do not remove the EXALL license.

IMPORTANT: The tier upgrade licenses are additive and should not be removed.

# 2

## Starting and Configuring RealProxy 8

IMPORTANT: You must have a licence installed on your appliance prior to starting RealProxy 8. For more information, see [“Purchasing a RealProxy 8 License” on page 9](#).

### About Starting RealProxy 8

RealProxy 8 requires at least one RealProxy service to be configured and enabled in order for RealProxy to start. Real services need to be configured at the command line. These services will only configure RealProxy for the RTSP protocol.

Other RealProxy 8 features, such as PNA support, are configured through the RealProxy 8 configuration screen (see [“Configuring Features Specific to RealProxy 8” on page 19](#)).

### Setting up RealProxy 8 Forward Proxy Services

Media Excelerator for RealProxy 8 acts as a forward proxy when you have created and enabled a forward service.

### Creating the Service

To create a forward service do the following:

- 1 At the system prompt, type

```
add realservice = name_of_service
```

where *name\_of\_service* is the name assigned to the service.

IMPORTANT: This automatically creates and enables a forward proxy service.

- 2 If you need to change the default port number (554), type the following using the *name\_of\_service* where indicated.

```
set realservice name_of_service port = port_number
```

where *port\_number* is a unique port number assigned to the service. It is recommended that you use port 554 unless you are configuring a QuickTime transparent service, which must use port 554. In this case, you the Administrator may choose any other available port for RealProxy. For more information, see [“Using QuickTime and RealProxy Services Together” on page 15](#).

- 3 Type **apply**.

Once a service has been created, use the **get** command to display the parameters associated with that service. For example, if your forward proxy service is named *realfwd*, type

```
get realservice realfwd
```

## Configuring RealPlayer

Your RealPlayer must be configured to use the forward service. For more information on configuring RealPlayer see Chapter 5, *Connecting Clients to RealProxy* in the RealProxy Administration Guide. For more information on forward proxies for streaming media, see [Streaming Media Overview](#) and [Overview of Forward Streaming Proxy](#) in the *Volera Excelerator 2.2 Administration Guide*.

## Setting up RealProxy 8 as a Transparent Proxy

Excelerator 2.2 functions as a transparent proxy when traffic for the RTSP port (554) is transparently redirected to the Excelerator appliance. This can be done through an L4 switch, or a WCCP-capable router. Methods for doing this are described in detail in [Transparent/L4 RTSP Streaming Proxy](#) in the *Volera Excelerator 2.2 Administration Guide*. In order to utilize Media Excelerator for RealProxy 8 as a transparent proxy it is *necessary* to configure a Real transparent proxy service as in explained in [“Creating the Service” on page 14](#).

## Creating the Service

To create a transparent service, do the following:

- 1 At the system prompt, type

```
add realservice = name_of_service
```

where *name\_of\_service* is the name assigned to the service.

IMPORTANT: This automatically creates and enables a forward proxy service.

- 2 Change the forward service to a transparent service by typing the following using the *name\_of\_service* where indicated.

```
set realservice name_of_service type = transparent
```

- 3 If you need to change the default port number (554), type the following using the *name\_of\_service* where indicated.

```
set realservice name_of_service port = port_number
```

where *port\_number* is a unique port number assigned to the service. It is recommended that you use port 554 unless you are configuring a QuickTime transparent service which must use port 554.

IMPORTANT: If you are using Real and QuickTime transparent services at the same time, RealProxy services must be configured on a port other than 554. You won't have to change the port number on the individual Real players. Exceleator automatically detects RealPlayer requests and dynamically routes them to the appropriate RealProxy service.

IMPORTANT: If the transparent service uses a port other than 554, all other RealProxy services must be changed to use the same port, i.e., all RealProxy services must use the same port.

- 4 Type **apply**.

Once a service has been created, use the **get** command to display the parameters associated with that service. For example, if your transparent proxy service is named *realtrans*, type

```
get realservice realtrans
```

## Using QuickTime and RealProxy Services Together

IMPORTANT: RealProxy must be stopped before configuring QuickTime transparent proxy services by disabling all previously created RealProxy services. Once the QuickTime transparent proxy service has been configured and started, restart RealProxy by enabling the service(s).

QuickTime transparent and RealProxy services can be configured at the same time. In most environments the QuickTime transparent service will be configured on port 554, the standard RTSP port. If the RealPlayer sends requests to the standard RTSP port (554), the QuickTime transparent service will redirect the request to the RealProxy service.

Media Excelerator for QuickTime will redirect requests from Real players to the RealProxy service and port if the following conditions are met:

- ◆ A QuickTime transparent service is configured for port 554 (default for RTSP)
- ◆ RealProxy services are also configured and enabled (on a different port)
- ◆ The RealMedia clients are configured to send requests to port 554 (the default)

Because the Real Media request can be redirected, the appliance should be given a publicly routable IP address. If the appliance has multiple network cards which are configured with IP addresses, the appliance will choose which IP address to use for RealProxy redirects.

If you wish to limit the pool of addresses which may be chosen for RealProxy redirects, you may do this by using the RealProxy 8 IP Binding feature. The IP Binding feature is configured through the RealSystem Administrator tool. This will prevent redirects from going to incorrect IP addresses, such as non-public addresses or IP addresses assigned to interfaces which are not currently attached to the network.

## Configuring RealProxy 8 as a Media Server Accelerator

The Excelerator can be configured to directly process RealMedia requests intended for an origin server. This is done by configuring a RealProxy accelerator service. The RealProxy accelerator service handles the request, accessing the origin server only when requested content is not already cached.

The benefits of server acceleration are:

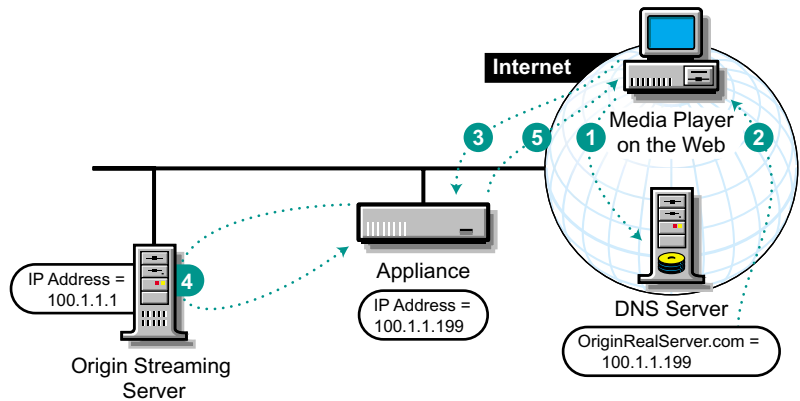
- ◆ A streaming server accelerator reduces response time to media player requests and frees up origin streaming server bandwidth, allowing it to handle requests for less frequently requested, uncached streams much more quickly.
- ◆ The appliance can accelerate origin streaming servers at remote locations that don't offer high bandwidth connections. The streaming server accelerator can be located close to the Internet backbone, delivering high-speed access to browsers for all cached objects.
- ◆ Deploying an accelerator in front of a streaming server greatly increases the number of players that can be serviced by the server.

For tips and guidelines on setting up origin streaming server accelerators, see [Streaming Server Accelerator Setup](#) in the [Volera Media Excelerator 1.2 for Windows Media Administration Guide](#).

The mechanism for routing player requests to the streaming media accelerator instead of the origin streaming servers can be summarized as follows:

- ◆ Without acceleration, DNS resolves the origin streaming server's DNS name to the origin streaming server's IP address.
- ◆ With acceleration, DNS resolves the server's name to the IP address of an appliance streaming media accelerator (reverse proxy) service.

Figure 1



- 1 A player requests a stream from an origin streaming server. This generates a request to DNS for the numeric IP address of the origin streaming server.
- 2 Instead of returning the origin streaming server's numeric IP address, DNS returns the numeric IP address of the accelerator service on the appliance.
- 3 The player requests the stream using the numeric IP address of the accelerator service.
- 4 The accelerator service begins filling the stream from the origin streaming server.
- 5 The accelerator service transmits the stream in real time to the player.

If you are configuring an accelerator service type, the command line syntax must include:

- 1 At the system prompt, type

```
add realservice = name_of_service
```

where *name\_of\_service* is the name assigned to the service.

2 Type the following using the *name\_of\_service* where indicated.

```
set realservice name_of_service type = accelerator
set realservice name_of_service enable = yes
set realservice name_of_service port = port_number
```

where *port\_number* is a unique port number assigned to the service.

3 Type the following, inserting the service's DNS name where indicated.

```
set realservice name_of_service dnsname =
    DNS_name_of_Real_service
```

The *DNS\_name\_of\_Real\_Service* is a DNS domain name that resolves to the IP address assigned to the Real Proxy service on the Excelsator. In [Figure 1](#) this is OriginRealServer.com.

4 Type the following, inserting the origin server's DNS name or IP address where indicated.

```
add realservice name_of_service originaddress =
    DNS_name_of_target_origin_server /
    IP_address_of_target_origin_server
```

In [Figure 1](#), 100.1.1.1 is the IP address of the target origin server.

More than one IP address or DNS domain name can be specified if the content is hosted on multiple origin servers. In this case, requests are directed to the origin servers in a round-robin fashion. If the DNS domain name is specified it must resolve to the actual IP address of the origin server.

To remove an origin address value, type

```
remove realservice name_of_service originaddress =
    DNS_name_of_target_origin_server /
    IP_address_of_target_origin_server
```

To clear all origin address values, type

```
clear realservice name_of_service originaddress
```

5 Type the following, inserting the origin server's port number where indicated.

```
set realservice name_of_service originport =
    port_number_of_target_origin_server
```

If multiple origin servers are specified in [Step 4 on page 18](#), all origin servers must use the same port.

6 Type **apply**.

Once a service has been created, use the **get** command to display the parameters associated with that service. For example, type

```
get realservice realacc
```

to display the parameters of an accelerator proxy service with the name realacc.

## Configuring Features Specific to RealProxy 8

In the Excelerator browser-based management tool,

- 1 Click Cache > Streaming then click the RealProxy Configuration button.
- 2 In the RealProxy Administrator tool, click Configure > General Setup to view and configure your RealProxy's basic settings.

For more information on configuring RealProxy, see the RealProxy Administration Guide. This can be viewed by clicking Help > Documentation in the RealSystem Administrator tool.

**IMPORTANT:** If your management browser uses the appliance on which you are configuring Real Proxy 8 as its forward proxy, you will get a 504 Gateway Timed Out error when trying to launch the RealProxy Configuration screen. You will need to turn off the proxy in your browser to launch the configuration screen.

## Editing the RealProxy Configuration File

Except in rare cases, all configuration parameters for RealProxy 8 can be modified using the RealSystem Administrator tool. If the configuration file must be edited, the following steps can be followed.

**IMPORTANT:** The configuration file for RealProxy is RMPROXY.CFG, not RMSERVER.CFG as stated in the RealProxy documentation.

Since users do not have access to the directory where the RealProxy 8 configuration file is located, they can edit the configuration file as follows:

- 1 Insert a floppy disk into drive A.
- 2 Enter **export floppy** at the command line to export the NAS file.
- 3 Edit the NAS file.

See Editing the Configuration File in the RealProxy Administration Guide. At the bottom of the NAS file is the line "restore begin \system\rmpoxy.cfg" followed by the RealProxy configuration settings.

The last line is "restore end." All the settings between these commands will be used to create a new RMPROXY.CFG file.

- 4 After the file has been modified, enter **import floppy** at the command line.

## Configuring Hierarchical Proxies (Proxy Routing)

For general information on setting up hierarchical proxies, refer to Chapter 10 *Proxy Routing* in the RealProxy Administration Guide.

If there is a transparent service configured for a parent proxy, you must configure an RTSP port other than 554 for the parent proxy. The Parent RTSP port parameter in all routing rules referencing this parent proxy must be set with the same port number. Proxies do not support redirection.

IMPORTANT: Never configure the origin server as the parent in a routing rule. This can cause unpredictable results.

## Removing Services

To remove a service, type

```
remove realservice = name_of_service  
apply
```

## Troubleshooting

If you are not able to access RealProxy through the browser-based management tool or RealProxy 8 will not start, the configuration for RealProxy may be invalid. If there are syntax errors or invalid configurative statements, RealProxy 8 will not start. In this case you must manually repair the configuration file. See [“Editing the RealProxy Configuration File” on page 19](#) for further information on editing the RealProxy 8 configuration file. For more information on RealProxy 8 configuration and file syntax, see Appendix A: *Configuration File Syntax* and Appendix B: *Configuration File Contents* in the RealProxy Administration Guide.

If the appliance you are configuring for Real is serving as the forward proxy for your browser, you will get a 504 Gateway Timed Out error when trying to launch the RealProxy Configuration screen. You will need to temporarily

disable the proxy setting in your browser to launch the Real Configuration screen.

## RealProxy Documentation

To view the RealProxy 8 for Media Exceleator documentation, click the Help button in the Exceleator browser-based management tool. To view the RealProxy Administration Guide, click Cache > Streaming then click the RealProxy Configuration button. Click Help > Documentation in the RealSystem Administrator.

