



HP Velocity Server Side Deployment Guide

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Contents

Trademarks and patents	2
Disclaimer	2

About this document 5

Purpose	5
Intended audience	5
Document styles and conventions	5

Deployment configurations 7

HP Velocity overview	7
Benefits of HP Velocity	8
Deployments	9
Direct	10
Proxied	11
Direct and proxied	12
Terminal services	13
Deployment considerations	14
Maximum number of protected streams	14
Aggregated statistics for some deployment models	14

Installations 15

System requirements	15
Server side installation	15
Installing on Microsoft Hyper-V	18
HP thin client installation	18

HP Velocity management 19

Starting the HP Velocity System Tray Application	19
Identifying and setting HP Velocity operational modes	20
Displaying accelerated or monitored stream count	21
Displaying HP Velocity server information	22
HP Velocity management	22
HP Velocity Group Policy objects	22
Policy Engine	23
Adding the HP Velocity Administrative Template to a GPO	23
Updating HP Velocity configuration using the Group Policy Editor	24
Registry keys used in HP Velocity configuration	26
HP Velocity Management application	29

Getting started	29
Accounts and privileges	30
Starting the Management Application	30
Statistics	31
Accelerated Streams	37
Network Monitor	38
Configuration	39
Policy Filters	45
HP Velocity Configuration Report	51

Troubleshooting	52
------------------------	-----------

Why does the "Another version of this product is already installed." message appear?	52
Why does the "Do you want to allow the following program from an unknown publisher to make changes to your system" message appear?	52
Why does a message about a driver that has not passed Windows Logo Compatibility testing appear?	52
Why are there multiple protected streams for one PCoIP or RGS connection?	53
Why is traffic between two HP Velocity servers only monitored?	53
A procedure in this document doesn't work.	53
This troubleshooting section does not have the solution to my problem.	53

Index	54
--------------	-----------

About this document

Purpose

This document describes various deployment methods for HP Velocity on the server side. It contains the following sections:

- [Deployment configurations](#) — Overview of HP Velocity and its different deployment configurations
- [Installations](#) — Installation procedures for HP Velocity on the server side
- [HP Velocity management](#) — Tools to configure, manage, and troubleshoot HP Velocity
- [Troubleshooting](#) — Basic troubleshooting information

Intended audience

This document is intended for network and IT administrators who will be installing, configuring, and managing HP Velocity.

Document styles and conventions

In this document, the following styles are used.

Style	Description
<i>Start > Edit > Cut</i>	Any elements on screen such as menus, or buttons use this format.
<i>Select directory screen</i>	A screen or dialog box name uses this format.
<code>myfile.txt</code>	Filenames, and directory names use this format
Sample Product	Links to locations inside and outside this document use this format.
Example book	Links to external published documents, books, and articles use this format.

In this document, the following conventions are used

Convention	Description
<code><sample_name></code>	Replace the whole text including angle brackets with the expected value. For example, replace <code><exec_filename></code> with <code>example.exe</code> when entering this command.
<code>{option1 option 2}</code>	When entering the command, choose one of the options presented.

Deployment configurations

HP Velocity server side deployments vary based on the virtualization architecture.

This chapter includes the following sections:

- [HP Velocity overview](#)
- [Deployments](#)
- [Deployment considerations](#)

HP Velocity overview

HP Velocity is a Quality of Service (QoS) system that improves overall Quality of Experience (QoE) for real-time network applications.

Streaming real-time applications over data networks will often suffer from packet loss and transmission latency; this results in stop-and-go behavior, loss of interactivity, and an overall reduction of an application's throughput. Ultimately, application users are likely to find themselves dissatisfied with the experience.

HP Velocity easily integrates with existing systems to improve a streaming application's QoE by addressing the underlying problems found in today's networks: packet loss, transmission latency, and jitter.

Automatic discovery, session establishment, and session management are performed by HP Velocity-enabled endpoints.

HP Velocity continuously monitors end-to-end network conditions to select the most appropriate data delivery mechanism. Packet loss is automatically reduced and transmission latency is minimized, thereby improving an application's QoE and throughput.



NOTE: HP Velocity only accelerates streams between HP thin clients and HP Velocity-enabled virtual desktops or terminal services servers.

Benefits of HP Velocity

Adaptive network analysis	HP Velocity continuously monitors end-to-end network conditions for individual data streams, providing adaptive optimizations and data stream acceleration.
Packet loss protection	HP Velocity protects against packet loss, which is key to improving an application's QoE. Even in small amounts, packet loss will reduce application throughput, degrade or halt streaming applications, and introduce lag for interactive applications.
Congestion detection	HP Velocity automatically detects network congestion and adjusts the amount of redundancy, thus maximizing QoE over data networks.
WiFi acceleration	HP Velocity automatically reduces latency and transmission times for wireless networks and minimizes protocol overhead, resulting in improved QoE for WiFi applications.
Seamless integration	HP Velocity is a transparent, “plug and play” solution, which provides QoE benefits to all applications and users.
Lightweight	HP Velocity is delivered as a lightweight implementation, which achieves QoE benefits while keeping system resource utilization to a minimum.

Deployments

HP Velocity comes pre-installed on HP thin clients. Use the following table to determine where to install HP Velocity on the server side.

Virtualization architecture	
HP thin clients are directly connected to virtual desktops or applications.	“Direct” on page 10
HP thin clients use a connection broker as a proxy to access virtual desktops or applications.	“Proxied” on page 11
The virtualization environment supports both direct and proxied connections to virtual desktops and applications.	“Direct and proxied” on page 12
HP thin clients connect to a terminal services server.	“Terminal services” on page 13



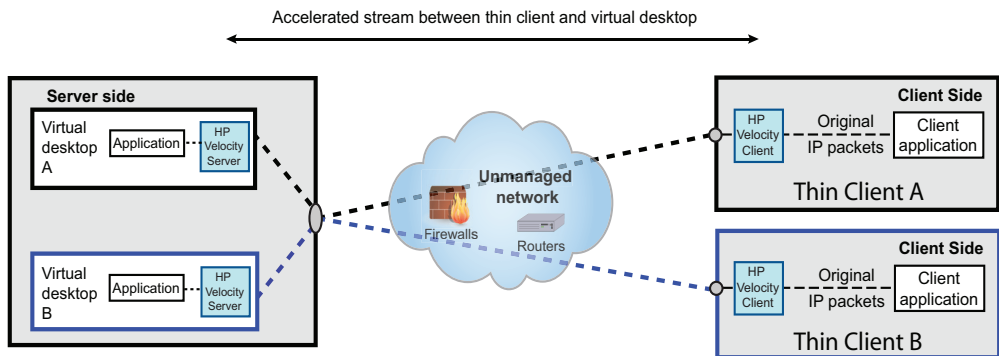
NOTE: HP Velocity server side components are currently supported on Microsoft operating systems.

Direct

Virtualization architectures that allow HP thin clients to connect directly to virtual desktops must have HP Velocity server installed on the virtual desktop. In these deployments, a connection broker does not act as a proxy.

In [Figure 1](#), thin clients A and B are directly connecting to their respective virtual desktops A and B as indicated by the color of the connecting dotted lines.

Figure 1. Sample direct deployment

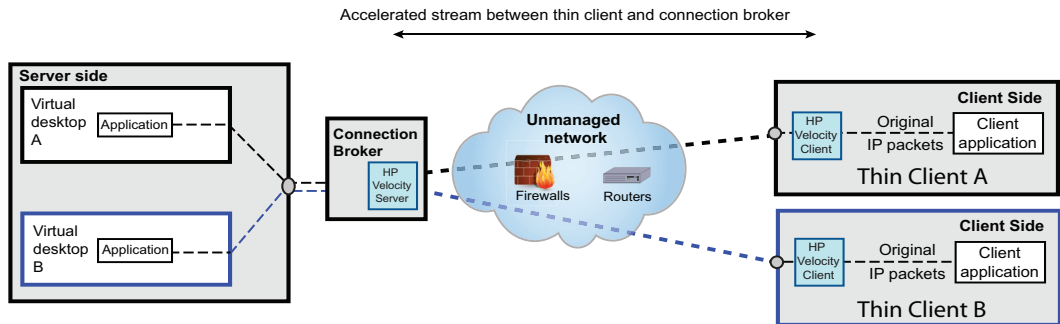


Proxied

Virtualization architectures that require HP thin clients to access virtual desktops via a proxy service provided by a connection broker (such as VMware View Manager) must have HP Velocity installed on the connection broker.

In [Figure 2](#), thin clients A and B are connecting to their virtual desktops via the connection broker. HP Velocity server is installed on the connection broker. This results in HP Velocity-accelerated streams between the thin clients and the connection broker.

Figure 2. Sample proxied deployment



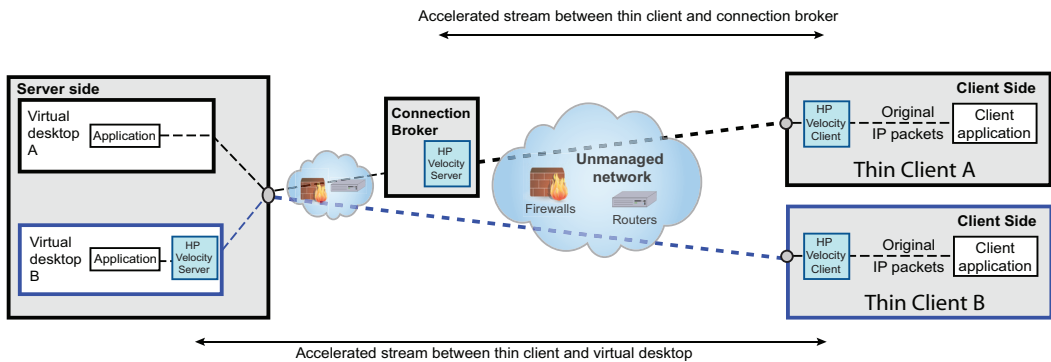
Direct and proxied

Virtualization architectures may allow direct and proxied access to virtual desktops. In such deployments HP Velocity server must be installed on:

- Virtual desktops that are accessed directly
- Connection brokers that provide a proxy service to access the virtual desktop

In [Figure 3](#) thin client A connects to virtual desktop A through the connection broker, and thin client B connects to virtual desktop B directly.

Figure 3. Sample direct and proxied deployment

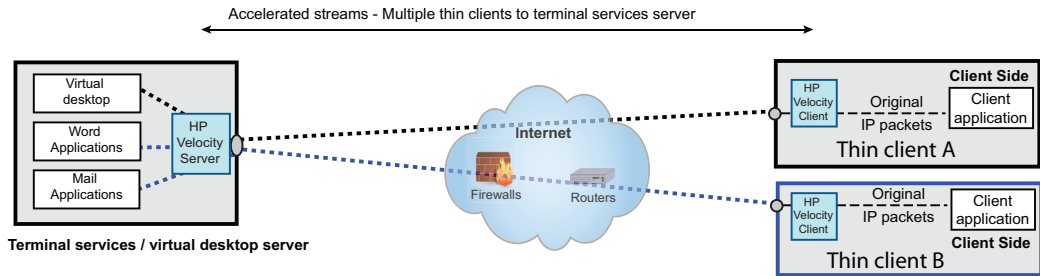


Terminal services

In a terminal services deployment, multiple HP thin clients are connecting to a terminal services server such as a Windows Server.

In such deployments, HP Velocity must be installed on the terminal services server as shown in [Figure 4](#).

Figure 4. Sample terminal services deployment



Deployment considerations

Maximum number of protected streams

HP thin clients currently support up to 16 simultaneous accelerated streams.

HP Velocity installed on a virtual desktop currently supports up to 16 simultaneous accelerated streams with one or more HP thin clients.

HP Velocity installed on a terminal services server currently supports up to 256 simultaneous accelerated streams with one or more HP thin clients.

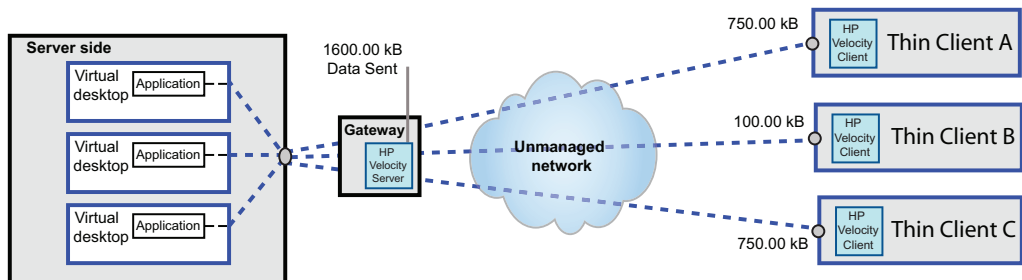


NOTE: HP Velocity server-to-server streams are only monitored, not accelerated. Only streams between an HP Velocity enabled server and an HP thin client are accelerated.

Aggregated statistics for some deployment models

Dependant on where HP Velocity is installed, the statistics counters in HP Velocity can be used to track statistics on a system-wide view, since it tracks all streams terminated on the endpoint. As shown in [Figure 5](#), the HP Velocity server installed on the gateway provides an aggregated view of the data streams of all the thin clients connecting to that gateway. For more information on statistics, see “[Statistics](#)” on page 31.

Figure 5. Aggregated statistics



Installations

This section outlines the requirements of installing HP Velocity server and includes the following sections:

- [System requirements](#)
- [Server side installation](#)
- [Installing on Microsoft Hyper-V](#)

System requirements

Before installing HP Velocity server, ensure the following resources are available. Note the different requirements for server operating system (OS) and virtual desktop OS installations.

Requirement	Server OS	Virtual desktop OS
CPU	Any	Any
Memory	30 MB	3 MB
Disk space	10 MB	10 MB
OS	Windows Server 2003 Windows Server 2008	Windows 7 Windows Vista Windows XP (SP3 and above)
OS variants		32-bit and 64-bit
Clients		HP thin client(s)

Server side installation

HP Velocity installs as a network driver on the following platforms:

- Virtual desktops
- Host OS of Microsoft Terminal Services
- Microsoft Hyper-V server



NOTE: HP Velocity uses an Internet Protocol (IP) ID of 0x880477FB and an IP option of 0x420B in IP headers. Intrusion Detection Systems (IDS) and firewall systems may require configuration to support HP Velocity-enabled traffic. Failure to do so may result in these devices blocking HP Velocity-enabled traffic. Consult the device manuals to configure these settings.

To install HP Velocity server:

1. Locate the correct HP Velocity server installation package for the server side operating system (see table below). Read the release notes and documentation for the version of HP Velocity being installed.

Operating system	OS variants	Installation package
Windows XP	32-bit	HPVelocity_Server_32_R#.msi
Windows 7	64-bit	HPVelocity_Server_64_R#.msi
Windows Vista		
Windows Server 2008		
Windows Server 2003		

Note that R# indicates the HP Velocity release number.

2. Log on to the system where HP Velocity server will be installed, using an account with administrator privileges.
3. Select the appropriate installation package for the server side operating system and architecture. Start the installer.

The *Welcome to the HP Velocity Setup Wizard* screen is displayed.

4. Select **Next**.

The *License Agreement* screen is displayed.

5. Read the end user license agreement:
 - Select **I Agree** and select **Next** to continue.
 - Select **Cancel** to end the installation.

The *Select Installation Folder* screen is displayed with the default location of C:\Program Files\LiveQoS\HP Velocity\.

6. Optionally select the location where HP Velocity will be installed, or accept the default location.
7. Select **Everyone** (default) to install HP Velocity for all user accounts and administrators or select **Just me** to install HP Velocity only for the current user account.
8. Select **Next**.

The *Confirm Installation* screen is displayed.

9. Select **Next** to confirm selections and start installing HP Velocity.



CAUTION: Depending on the version of Windows OS, a warning message may be displayed about LiveQoS installing software. This message is expected; allow the installation to proceed.

The *Installation Complete* screen is displayed when the installation is finished.

10. Select **Close**.

11. When prompted, restart the system.



NOTE: During installation, HP Velocity will reset the system's network interfaces, briefly interrupting network connections. If a remote services connection is being used to install HP Velocity, the connection will be reset.

After restarting the system, the HP Velocity System Tray Application automatically launches. However, it may also be launched from the Windows Start menu via the HP Velocity folder.

Installing on Microsoft Hyper-V

Installing HP Velocity on Microsoft Hyper-V may require the following additional steps:

If HP Velocity is installed directly on Microsoft Hyper-V and there is a “Local Area Connection - Virtual Network” entry as shown in [Figure 6](#), ensure that the LiveQoS NDIS 6 Filter Driver is disabled for the physical network adapter, as shown in [Figure 7](#).

Figure 6. Microsoft Hyper-V network connections

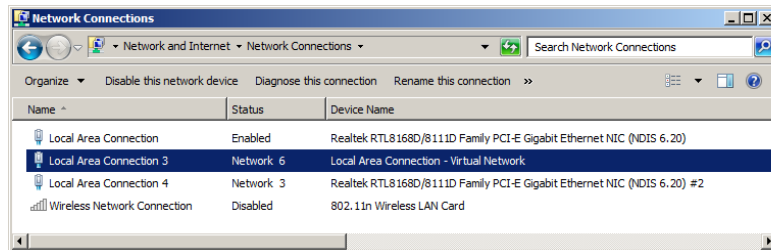
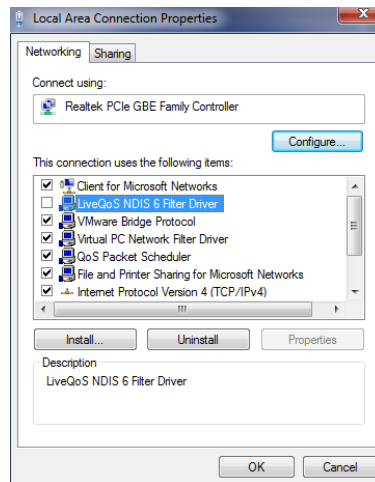


Figure 7. Disabled NDIS 6 filter driver



HP thin client installation

HP Velocity comes pre-installed on select HP thin client images since March 2012. If a reinstall is required, the HP thin client should be re-imaged. For more information, visit <http://www.hp.com/support>.

HP Velocity management

This section includes:

- [Starting the HP Velocity System Tray Application](#)
- [Identifying and setting HP Velocity operational modes](#)
- [HP Velocity management](#)

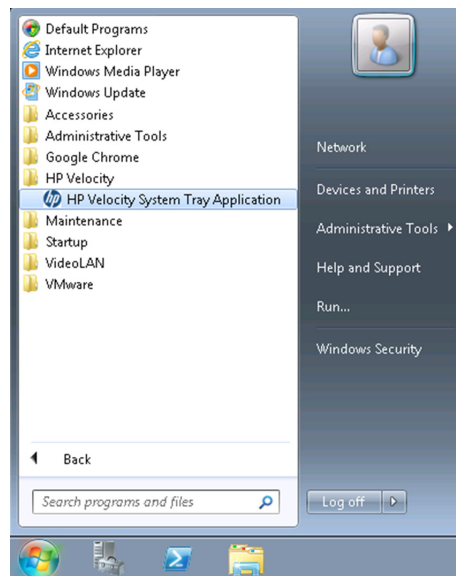
Starting the HP Velocity System Tray Application

The HP Velocity System Tray Application automatically launches on system startup. However, it may also be launched by performing the following steps:

To start the HP Velocity System Tray Application:

1. Go to the Windows Start menu.
2. Go to **HP Velocity > HP Velocity Tray Application**.
3. Select **HP Velocity System Tray Application** as shown in [Figure 8](#).

Figure 8. Windows Start Menu showing the HP Velocity System Tray application



When HP Velocity is running on an HP thin client, virtual desktop, or a terminal server, an icon appears in the Windows System Tray, as shown in [Figure 9](#). The icon color will change based on the current operational mode of HP Velocity.





Figure 9. Windows System Tray with the HP Velocity icon



Identifying and setting HP Velocity operational modes

The HP Velocity System Tray Application icon is displayed in one of four colors that correspond to different HP Velocity operational modes.

The following table describes the icon colors, operational modes, and their behaviors.

Icon	Color	Mode	Description
	Green	Active	HP Velocity is actively accelerating one or more streams.
	Blue	Active	HP Velocity is active but no accelerated streams have been established.
	Orange	Monitoring	HP Velocity is profiling present and trending network conditions. In this mode HP Velocity does not accelerate streams.
	Gray	Disabled	HP Velocity is disabled.



NOTE: In the case of server-to-server connections, HP Velocity will display the green icon but will only be monitoring the active streams.

Setting the HP Velocity mode of operation

Once the HP Velocity System Tray Application is running, select the desired HP Velocity mode of operation using the slider, as shown in [Figure 10](#) below.

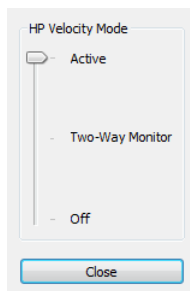
An administrator should only change the HP Velocity mode of operation:

- During troubleshooting to disable HP Velocity
- After troubleshooting to re-enable HP Velocity
- As directed by HP support

To set the HP Velocity System Tray Application operational mode:

1. Select the icon in the Windows System Tray.
2. In the resulting dialog box, select the slider control shown in [Figure 10](#).
3. Move the slider control to the new mode.

Figure 10. HP Velocity operational mode slider



NOTE: To change the HP Velocity mode of operation, administrator privileges are required.

Displaying accelerated or monitored stream count

Position the cursor over the HP Velocity icon to display a tool tip with the number of active connections.

Displaying HP Velocity server information

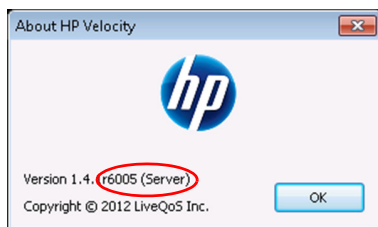
To verify that HP Velocity is a server installation and obtain the release number:

1. Right-click the HP Velocity System Tray icon.
2. Select **About**.
3. Confirm the word **Server** is displayed as shown in [Figure 11](#).
4. Optionally record the release number, the four digit number following the “r”. In [Figure 11](#) this is r6005, or release 6005.



NOTE: This is the HP Velocity release number. It is not the HP thin client image release number.

Figure 11. Confirming the HP Velocity server and release number



HP Velocity management

HP Velocity is installed with pre-configured settings that require no changes in most deployments. To make changes to the configuration of HP Velocity, use the following:

- [HP Velocity Group Policy objects](#)
- [HP Velocity Management application](#)

HP Velocity Group Policy objects

This section describes how to change HP Velocity default settings using Group Policies.



NOTE: Group Policy objects are available for all HP Velocity server installs. See “[To verify that HP Velocity is a server installation and obtain the release number:](#)” on page 22.

This section includes:

- [Policy Engine](#)
- [Adding the HP Velocity Administrative Template to a GPO](#)
- [Updating HP Velocity configuration using the Group Policy Editor](#)
- [Registry keys used in HP Velocity configuration](#)

Policy Engine

The HP Velocity Policy Engine makes use of Microsoft Group Policy.

Microsoft Group Policy

Microsoft Group Policy provides the centralized management and configuration of operating systems, applications, and users' settings in a Windows Active Directory environment. The Group Policy (GP) and the Active Directory (AD) infrastructures in Windows Server enable IT administrators to automate one-to-many management of users, HP thin clients, and servers. The Group Policy settings are contained in a Group Policy object (GPO).

To create a GPO, use the Group Policy Management Console (GPMC), which is available for download from the [Microsoft download center website](#).

The GPO can be used to centrally manage and propagate new settings for HP Velocity over an entire Windows AD domain.

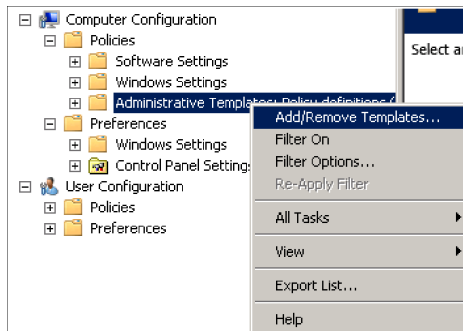
To configure the GPO with HP Velocity options, the HP Velocity Administrative Template must be applied to the GPO. The HP Velocity Administrative Template (`hpvelocity_configuration-R#.adm`) adds a set of options to the GPO and specifies which registry keys will be set for each option. For more information on the HP Velocity registry keys, see "[Registry keys used in HP Velocity configuration](#)" on page 26.

Adding the HP Velocity Administrative Template to a GPO

Choose the group policy editor based on which GPO will be edited. For local group policy administration, use `gpedit.msc`. For domain group policy administration, use `gpmc.msc` and select the GPO that applies. [Figure 12](#) shows some of the steps in the following procedure.

To add the HP Velocity Group Policy administrative template to a GPO:

1. Open the appropriate group policy editor.

Figure 12. Adding an administrative template

2. Expand **Computer Configuration**.
3. Expand **Policies**.
4. Right-click **Administrative Templates**.
5. Select **Add/Remove Templates....**
6. Select **Add...**
7. Browse for `hpvelocity_configuration_R#.adm`. R# is the release number of the template that matches the release number of the HP Velocity install.
8. Select **Close**.

The HP Velocity Group Policy Administrative Template has been applied to this GPO.

Updating HP Velocity configuration using the Group Policy Editor

Once the administrative template has been added to the group policy object, configuration changes for HP Velocity can be made as required.

It is recommended to change the HP Velocity settings on all systems in an organizational unit (OU). This ensures that all installations in the OU are using the same settings.

To change HP Velocity settings on all systems in an OU:

1. Open the group policy object in the Group Policy Management Editor.
2. Expand **Computer Configuration > Policies**.
3. Expand **Administrative Templates > Classic Administrative Templates (ADM)**.
4. Select **HP Velocity**.
5. Double-click **Configuration**.
6. Select **Enabled**.

The dialog box, as shown in [Figure 13](#), will be displayed.

Figure 13. HP Velocity group policy configuration

The screenshot shows a 'Configuration' dialog box for HP Velocity. It has a title bar with standard window controls. Below the title bar are 'Previous Setting' and 'Next Setting' buttons. The main area contains three radio buttons: 'Not Configured', 'Enabled' (which is selected), and 'Disabled'. To the right of these is a 'Comment:' field. Below the radio buttons is a 'Supported on:' field. Underneath are two sections: 'Options:' and 'Help:'. The 'Options:' section contains several settings: 'Protection' is a dropdown menu set to 'Monitor'; 'Link Profiler' is a checked checkbox; 'Bandwidth Usage' is a dropdown menu set to 'Dynamic'; 'Target Loss Rate' is a dropdown menu set to '1.04%'; 'Wifi Optimizer' is a checked checkbox; 'TCP Optimizer' is a checked checkbox; 'Burst Loss Protection' is a dropdown menu set to 'On'; 'BLP Buffer Size' is a text input field containing '20'; and 'MTU Size' is a text input field containing '1492'. The 'Help:' section is a large text area titled 'Settings for HP Velocity'. At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Apply'.



NOTE: Policy Engine configuration changes will be applied immediately to HP Velocity endpoints that have the HP Velocity Management application running. If the management application is not running, the Policy Engine changes will be applied to that endpoint after a system reboot.

Registry keys used in HP Velocity configuration

The following are a list of registry keys used by the HP Velocity administrative template in the configuration of HP Velocity. Each registry key relates to a parameter that can be viewed using the HP Velocity Management application. For more information on these parameters, see “[Configuration](#)” on page 39.

The keys can be grouped into the following categories:

- [General keys](#)
- [General filter keys](#)
- [Target loss rate \(TLR\) filter keys](#)

General keys

Registry key	Parameter
Software\Policies\IPQ\CurrentVersion\Protection	Protection configuration
Software\Policies\IPQ\CurrentVersion\LinkProfiler	Link Profiler configuration (default is enabled)
Software\Policies\IPQ\CurrentVersion\BandwidthControl	Bandwidth control configuration (default is dynamic)
Software\Policies\IPQ\CurrentVersion\TargetLossRate	Target Loss Rate (TLR) configuration (default is 0.04%)
Software\Policies\IPQ\CurrentVersion\WifiOptimizer	WiFi Optimizer configuration (default is enabled)
Software\Policies\IPQ\CurrentVersion\TCPOptimizer	TCP Optimizer configuration (default is disabled)
Software\Policies\IPQ\CurrentVersion\Logging	Logging configuration
Software\Policies\IPQ\CurrentVersion\BurstLossProtection	Burst Loss Protection (BLP) configuration
Software\Policies\IPQ\CurrentVersion\MaxBLPBuffer	Max BLP Buffer configuration
Software\Policies\IPQ\CurrentVersion\MTU	Network Maximum Transmission Unit (MTU) configuration

General filter keys

Registry key	Parameter
Software\Policies\IPQ\CurrentVersion\IPBlacklistFilters	Blacklist IP filter configuration
Software\Policies\IPQ\CurrentVersion\IPWhitelistFilters	Whitelist IP filter configuration
Software\Policies\IPQ\CurrentVersion\TCPTransparentFilters	Transparent TCP filter configuration (default is 21 53 9100)
Software\Policies\IPQ\CurrentVersion\UDPTransparentFilters	Transparent UDP filter configuration (default is 53 67 68 123 161 500 4500)
Software\Policies\IPQ\CurrentVersion\TCPSpecialFilters	Special TCP filter configuration (default is 554 1720 5060 1723)
Software\Policies\IPQ\CurrentVersion\UDPSpecialFilters	Special UDP filter configuration (default is 554 5060)
Software\Policies\IPQ\CurrentVersion\TCPWhiteFilters	Whitelist TCP port filter configuration
Software\Policies\IPQ\CurrentVersion\UDPWhiteFilters	Whitelist UDP port filter configuration

Target loss rate (TLR) filter keys

Registry key	Parameter
Software\Policies\IPQ\CurrentVersion\DefaultTLRIPFilters	Default level TLR IP filter configuration
Software\Policies\IPQ\CurrentVersion\DefaultTLRTCPFilters	Default level TLR filters, TCP configuration
Software\Policies\IPQ\CurrentVersion\DefaultTLRUDPFilters	Default level TLR filters, UDP configuration
Software\Policies\IPQ\CurrentVersion\HighTLRIPFilters	High level TLR IP filter configuration
Software\Policies\IPQ\CurrentVersion\HighTLRTCPFilters	High level TLR filters, UDP configuration
Software\Policies\IPQ\CurrentVersion\HighTLRUDPFilters	High level TLR filters, TCP configuration
Software\Policies\IPQ\CurrentVersion\LowTLRIPFilters	Low level TLR IP filters configuration
Software\Policies\IPQ\CurrentVersion\LowTLRTCPFilters	Low level TLR filters, TCP configuration
Software\Policies\IPQ\CurrentVersion\LowTLRUDPFilters	Low level TLR filters, UDP configuration
Software\Policies\IPQ\CurrentVersion\UltraLowTLRIPFilters	Ultra-low level TLR IP filters configuration
Software\Policies\IPQ\CurrentVersion\UltraLowTLRTCPFilters	Ultra-low level TLR filters, TCP configuration
Software\Policies\IPQ\CurrentVersion\UltraLowTLRUDPFilters	Ultra-low level TLR filters, UDP configuration

HP Velocity Management application

The HP Velocity Management application is a Windows System Tray application that allows administrators to configure and monitor HP Velocity.

This section includes:

- [Getting started](#)
- [Accounts and privileges](#)
- [Starting the Management Application](#)
- [Statistics](#)
- [Accelerated Streams](#)
- [Network Monitor](#)
- [Configuration](#)

Getting started

The HP Velocity System Tray Application automatically launches on system startup. However, it may also be launched by performing the following steps:

To start the HP Velocity System Tray Application:

1. Go to the Windows Start menu.
2. Go to ***HP Velocity > HP Velocity Tray Application***.
3. Select ***HP Velocity System Tray Application***.



NOTE: When the HP Velocity Management application starts, it refreshes its configuration from the registry and applies the new settings to HP Velocity.

Accounts and privileges

HP Velocity provides the following access based on user account privileges. Refer to the tables below.

Administrator

Information	Read	Write	Export
Accelerated Stream information	X		
Network Monitoring graphs	X		
Statistics	X	X	X
Configuration values	X	X	X
Policy Filters configuration values	X	X	X

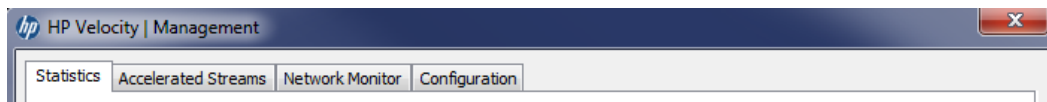
Non-administrator

Information	Read	Write	Export
Accelerated Stream information	X		
Network Monitoring graphs	X		
Statistics	X		X
Configuration values	X		X
Policy Filters configuration values	X		X

Starting the Management Application

To start the HP Velocity Management Application, right-click the HP Velocity system tray icon and select **Management**. The management application will open, displaying the tabs shown in [Figure 14](#).

Figure 14. Management Application Tabs



The tabs displayed across the top of the application provide access to all the configuration and monitoring functions of the management application. From left to right, these tabs are:

- [Statistics](#)
- [Accelerated Streams](#)
- [Network Monitor](#)
- [Configuration](#)

Statistics

This tab displays the raw statistics counters. These counters provide cumulative statistics for HP Velocity accelerated streams.

There are standard and advanced displays for statistics. In each, there are columns for total data since HP Velocity started and the data for the most recent 5 seconds, 1 minute, and 5 minutes.

Operations that can be performed on the statistics include:

- Logging the statistics history (up to a maximum of one week) to a file by selecting **Log History** (logging must be enabled)
- Logging the current statistics to a file by selecting **Log Snapshot**
- Resetting the statistics by selecting **Reset** (administrators only)

Standard Statistics view

The Standard Statistics view displays the basic statistic counters.

As shown in [Figure 15](#), the five columns displayed are the name of the statistic and four interval columns — total, 5 second, 1 minute, and 5 minute. These four columns indicate the statistic values for the specified interval. **Total** is the accumulated statistics since the system was started.

Figure 15. Standard Statistics view

Statistic	Total	5 Second	1 Minute	5 Minute
Network Loss	0.00%	0.00%	0.00%	0.00%
Corrected Loss	0.00%	0.00%	0.00%	0.00%
Encoded Data Sent	67.96 KB	0.00 Kbps	1.00 Kbps	0.00 Kbps
Encoded Data Received	39.42 KB	0.00 Kbps	0.00 Kbps	0.00 Kbps
Overage Sent Monitored	0.00 KB	0.00 Kbps	0.00 Kbps	0.00 Kbps
Overage Received Monitored	0.00 KB	0.00 Kbps	0.00 Kbps	0.00 Kbps
Total Active Sessions	2			
Accelerated Streams	1			

System uptime: 17:03
Monitored for: 00:15:02

Advanced Statistics
Logging: Disabled

[Reset](#) [Log History](#) [Log Snapshot](#)

Statistic name	Description
Network Loss	The actual received packet loss rate measured by HP Velocity.
Corrected Loss	The received packet loss rate, after correction, by HP Velocity.
Encoded Data Sent	The bytes of encoded data, in Kbps (for intervals) or MB/KB (for cumulative totals), sent by HP Velocity to the remote HP Velocity-enabled endpoint(s).
Encoded Data Received	The bytes of segment data, in Kbps (for intervals) or MB/KB (for cumulative totals), received by HP Velocity from the remote HP Velocity-enabled endpoint(s).
Overage Sent Monitored	The bytes of segment data, in Kbps (for intervals) or MB/KB (for cumulative totals), sent but not accelerated due to resource constraints.
Overage Received Monitored	The bytes of segment data, in Kbps (for intervals) or MB/KB (for cumulative totals), received but not accelerated due to resource constraints.
Total Active Sessions	Number of currently active unique data streams detected by HP Velocity as an endpoint.
Accelerated Streams	Number of currently active unique accelerated data streams detected by HP Velocity as an endpoint.
System Uptime	Time since the last power cycle or reboot of the operating system. Units are HH:MM:SS.
Monitored For	Time since the management application was started. Units are HH:MM:SS.

Statistic name	Description
Advanced Statistics	Select to display more in-depth statistics. See “Advanced Statistics view” on page 33.
Logging	Select the frequency with which statistics will be logged to the log file. Log History is available only when Logging is enabled. See “Logging” on page 35.
Reset	Reset to clear statistics.
Logging History	Export the statistics log to a comma-separated (CSV) file. Log History is available only when Logging is enabled. See “Logging” on page 35.
Log Snapshot	Save the current 5-second, 1-minute, and 5-minute interval statistics to a comma-separated (CSV) file with the same column order as the statistics history file.

Advanced Statistics view

When viewing the Statistics tab, select **Show Advanced Statistics** to view more detailed information, as shown in [Figure 16](#).

To return to the Standard Statistics view, deselect **Show Advanced Statistics**.

Figure 16. Advanced Statistics view

Statistic	Total	5 Second	1 Minute	5 Minute
Network Loss	0.00%	0.00%	0.00%	0.00%
Corrected Loss	0.00%	0.00%	0.00%	0.00%
Encoded Data Sent	100.44 KB	0.00 Kbps	2.00 Kbps	0.00 Kbps
Encoded Data Received	55.34 KB	0.00 Kbps	0.00 Kbps	0.00 Kbps
Overage Sent Monitored	0.00 KB	0.00 Kbps	0.00 Kbps	0.00 Kbps
Overage Received Monitored	0.00 KB	0.00 Kbps	0.00 Kbps	0.00 Kbps
Total Active Sessions	0			
Accelerated Streams	0			
Packets Encoded	96	0	15	30
Segments Sent	96	0	15	30
Segments Received	95	0	10	28
Segments Lost	0	0	0	0
Packets Decoded	29	0	0	8
Packets Lost	0	0	0	0
Full Packets Lost	0	0	0	0
Monitored Packets Sent	0	0	0	0
Monitored Packets Received	0	0	0	0

System uptime: 24:00
Monitored for: 00:22:00

Advanced Statistics
Logging: **Disabled**

Reset Log History Log Snapshot

Statistic name	Description
Packets Encoded	The number of IP packets that were encoded by HP Velocity into segments.
Segments Sent	The number of encoded segments sent by HP Velocity to the remote HP Velocity enabled endpoint(s).

Statistic name	Description
Segments Received	The number of encoded segments received by HP Velocity from the remote HP Velocity enabled endpoint(s).
Segments Lost	The number of HP Velocity encoded segments that were not received by HP Velocity due to packet loss on the network.
Packets Decoded	The number of IP packets that HP Velocity successfully reconstructed from the received encoded segments.
Packets Lost	The number of IP packets that HP Velocity was unable to reconstruct from the received encoded segments due to excessive loss in the network.
Full Packets Lost	The number of IP packets that HP Velocity was unable to reconstruct because it did not receive any of the encoded segments for the encoded packet. Note: Together with the Packets Lost field, this counter is an indicator of burst loss.
Monitored Packets Sent	The number of monitored (not accelerated, not encoded) IP packets sent by HP Velocity due to resource constraints.
Monitored Packets Received	The number of monitored IP packets received by HP Velocity due to resource constraints on the peer HP Velocity-enabled device.
High Loss Events	The number of times that HP Velocity detected difficulty communicating with the remote HP Velocity-enabled endpoints due to extremely high packet loss in the network.
Non-accelerated Packets Sent	The number of non-accelerated IP packets sent.
Non-accelerated Packets Received	The number of non-accelerated IP packets received.
Packet Flows Monitored	The number of unique data flows detected by HP Velocity.
Accelerated Packet Flows Monitored	The number of unique data flows protected by HP Velocity.
Accelerated Requests Unfulfilled	The number of flows that would have been HP Velocity accelerated flows if not for resource restrictions.
Packets Encoded (Throughput)	The bytes of IP packet data, in Kbps (for intervals) or KB/MB (for cumulative totals), received from the application(s) that was encoded into HP Velocity segments or monitored by HP Velocity.
Packets Decoded (Throughput)	The bytes of IP packet data, in Kbps (for intervals) or KB/MB (for cumulative totals), received from the network that was successfully reconstructed or monitored by HP Velocity.
Non-accelerated Throughput (Tx)	The bytes of all transmitted non-accelerated IP packet data in Kbps (for intervals) or KB/MB (for cumulative totals).

Statistic name	Description
Non-accelerated Throughput (Rx)	The bytes of all received non-accelerated IP packet data in Kbps (for intervals) or KB/MB (for cumulative totals).
Near-end Congestion	The network congestion level detected by HP Velocity. This is displayed as a percentage.
Far-End Congestion	The network congestion level detected by the remote HP Velocity endpoints. This is displayed as a percentage.
System Uptime	Time since the last power cycle or reboot of the operating system. Units are HH:MM:SS.
Monitored For	Time since the HP Velocity management application was started. Units are HH:MM:SS.
Advanced Statistics	Deselect to display basic statistics. See “Standard Statistics view” on page 31.
Logging	Export the statistics log to a comma-separated (CSV) file. Log History is available only when Logging is enabled. See “Logging” on page 35.
Reset	Reset to clear statistics.
Log History	Export statistics log to a comma-separated (CSV) file. Log History is available only when Logging is enabled. See “Logging” on page 35.
Log Snapshot	Save the current 5-second, 1-minute, and 5-minute interval statistics to a comma-separated (CSV) file with the same column order as the statistics history file.

Logging

With logging enabled, the management application can log statistics at an interval of five minutes (by default), saving up to a maximum of one week's worth of HP Velocity statistics to the user's temporary files folder. The default logging interval is 5 minutes when enabled from Group Policy, but can be set to 1 minute or 5 seconds from the statistics tab.

HP Velocity management application maintains statistics history for up to 7 days. The file names of the log files will be in the following format:

```
hp_velocity_statistics_yymmdd.log.
```

Logfiles are created in the temporary folder for the current user. For example,
C:\Users\\AppData\Local\Temp.

In order to avoid the circumstance where old log files are not deleted, the management application automatically purges any files in the temporary files folder starting with `hp_velocity_statistics_` and ending in `.log` that are older than 7 days.

All logged statistics can be exported to a single comma separated value (CSV) file format. This can be done by selecting **Log History** on the Statistics tab of the management application and entering a local path and filename. The column order is outlined in the following table. The first row of the exported file will contain the column names.

Col#	Column information	Col#	Column information
1	Timestamp	15	Non-accelerated Throughput (Rx)
2	Packets Encoded	16	Overage Sent Monitored
3	Segments Sent	17	Overage Received Monitored
4	Packets Decoded	18	High-loss Events
5	Packets Lost	19	Non-accelerated Packets Sent
6	Segments Received	20	Non-accelerated Packets Received
7	Segments Lost	21	Packet Flows Monitored
8	Monitored Packets Sent	22	Accelerated Packet Flows Monitored
9	Monitored Packets Received	23	Total Active Sessions
10	Encoded Data Received	24	Accelerated Streams
11	Encoded Data Sent	25	Far-end Congestion
12	Packets Encoded (Throughput)	26	Near-end Congestion
13	Packets Decoded (Throughput)	27	Full Packets Lost
14	Non-accelerated Throughput (Tx)	28	Accelerated Requests Unfulfilled

Additionally, by selecting **Log Snapshot** on the statistics tab, the user can save the current 5-second, 1-minute, and 5-minute interval statistics to a comma-separated (CSV) file with the same column order as the statistics history file. See “[Standard Statistics view](#)” on page 31.



NOTE: When **Logging** is enabled on the Statistics tab, it is only enabled until the system is reset. After a reset, Logging will return to the Group Policy setting if applied. Otherwise, it will return to the default setting of disabled.

Accelerated Streams

The Accelerated Streams tab displays detailed information for each unique HP Velocity accelerated stream.

Select **Refresh** in the lower-right corner to update the displayed information.

Figure 17. Accelerated Streams tab

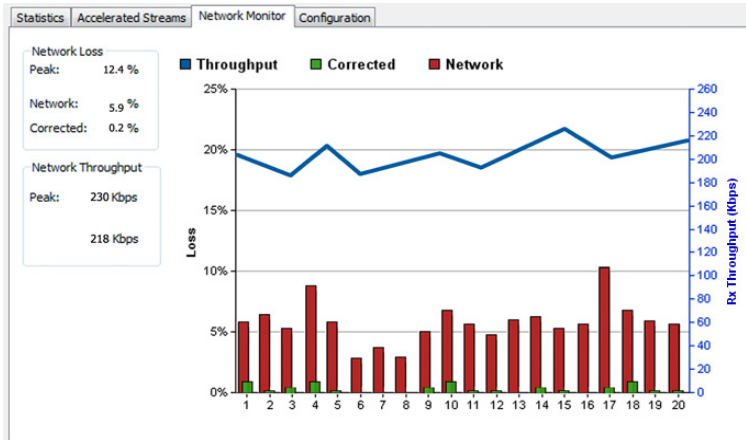
Destination IP	Destination Port	Local IP	Local Port	Protection...	Protocol	TLR
192.168.77.121	49441	192.168.77.126	2869	Accelerate	TCP	0.04%

Statistic name	Description
Destination IP	The destination IP address for the accelerated stream.
Destination Port	The destination TCP or UDP port number for the accelerated stream. If the port number is a recognized protocol, the protocol name will be displayed as well.
Local IP	The local IP address for the accelerated stream.
Local Port	The local TCP or UDP port number for the accelerated stream. If the port number is a recognized protocol, the protocol name will be displayed as well.
Protection Mode	Specifies whether the accelerated stream is active (protection enabled) or simply monitored. The field will read Active for streams which are protected and Monitored for streams which are monitored.
Protocol	The protocol (such as TCP or UDP) used by the accelerated stream.
TLR	The Target Loss Rate (TLR) applied to the accelerated stream as a percentage that HP Velocity will attempt to achieve.

Network Monitor

This tab displays three network graphs — throughput, corrected loss, and network loss. The bottom axis of the graphs indicates the time interval in seconds.

Figure 18. Network Monitor



Graph name	Color	Description
Rx Throughput	Blue line	The received throughput over the most recent interval. The right axis indicates the throughput in Kbps.
Corrected	Green bars	The corrected packet loss seen by applications for which HP Velocity is accelerating the streams. The left axis indicates the loss in percentage.
Network	Red bars	The packet loss in the network. The left axis indicates the loss in percentage.

Additionally, the values on the left-hand side represent the following.

Value	Description
Network Loss	
Peak	The highest packet loss for the duration of the graph.
Network	The packet loss over the most recent interval.
Corrected	The corrected loss over the most recent interval.

Value	Description
Network Throughput	
Peak	The highest received throughput for the duration of the graph.
Throughput	The received throughput for the most recent interval.

Configuration

HP Velocity installs with a default configuration suitable for most deployments. This section describes how to change the HP Velocity configuration using the HP Velocity management application.

The Configuration tab enables administrators to view and modify the current HP Velocity configuration. Select **Advanced** to display or hide the **Advanced** and **Loss Emulation** sections of the display.

[Figure 19](#) on page 40 shows standard and [Figure 20](#) on page 43 shows advanced configuration fields.

To save changes to the selected configuration, select **Apply**. To export the current configuration and system diagnostic information to a file, select **Export**.



NOTE: Non-administrators can only view or export the configuration.



NOTE: When settings are modified on the Configuration tab, they are only in effect until the system is reset. After a reset, the settings will return to the Group Policy setting if applied. Otherwise, they will return to the default.

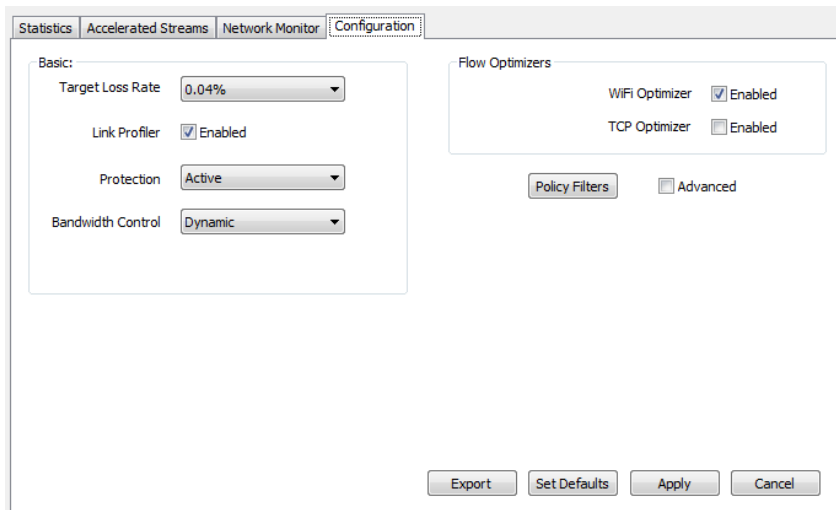


CAUTION! Changing HP Velocity configuration settings can severely impact networking performance.

Basic configuration

The Configuration tab displays commonly used configuration parameters, as shown in [Figure 19](#).

Figure 19. Configuration view



Configuration option	Description
Basic	
Target Loss Rate (TLR)	<p>Specifies the loss rate that HP Velocity will attempt to achieve for all active HP Velocity-accelerated streams.</p> <p>NOTE: Aggressive target loss rates (TLR) may not be achievable in very high-loss networks or bandwidth restricted environments.</p> <p>Available values are 0.04%, 0.1%, 0.2%, and 0.4%. The default is 0.04%.</p>
Link Profiler	<p>The HP Velocity Link Profiler analyzes network links. It detects links with bandwidth constraints and automatically adjusts HP Velocity protection to accommodate the bandwidth constraint.</p> <p>When the Link Profiler is active and bandwidth constraints are detected, the Link Profiler will override the Bandwidth setting and may override encoding modes to ensure the best network performance possible.</p> <p>Available values are Checked and Unchecked (enable and disable Link Profiler respectively). The default value is Checked (enabled).</p>

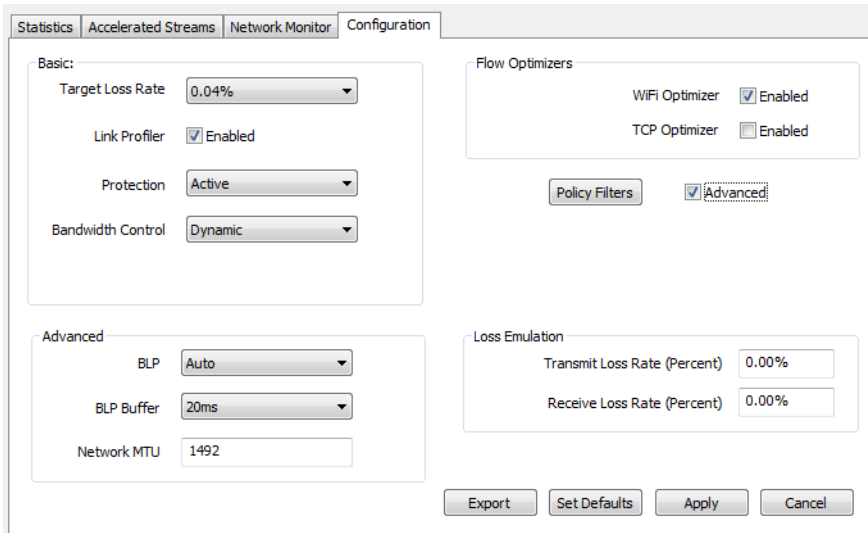
Configuration option	Description
Protection	<p>Enable or disable HP Velocity acceleration.</p> <p>Available values are:</p> <ul style="list-style-type: none"> • Active — Enable HP Velocity acceleration for streams through this HP Velocity. • Off — Pass through all data streams. • One-Way Monitor — Monitor for packet loss, but do not accelerate the IP data streams flowing in the transmit direction (towards the far-end HP Velocity) and decode any HP Velocity data streams received from the far-end HP Velocity. • Two-Way Monitor — Monitor for packet loss, but do not accelerate the IP flows through the HP Velocity. When selected, HP Velocity sends a message to the far-end HP Velocity instructing it to disable HP Velocity acceleration and enter monitor mode for any flows destined for this HP Velocity. <p>The default is Active.</p>
Bandwidth Control	<p>Specifies the range of protection modes that HP Velocity is able to use when encoding HP Velocity-accelerated streams.</p> <p>The protection mode defines how accelerated streams are protected from network loss. Higher protection modes protect against a greater network loss but also require more bandwidth.</p> <p>HP Velocity constantly monitors network loss and automatically selects the protection mode required to reduce the network loss to the specified target loss rate (TLR). The selection process is dynamic and the mode used at any given time varies depending on the real-time loss measured in the network.</p> <p>Available values are:</p> <p>Dynamic - Use this setting in situations where bandwidth is not constrained. It will maximize performance while minimizing the required bandwidth.</p> <p>Low - Use this mode in very bandwidth constrained environments to cap the estimated HP Velocity protection overhead at or below 27%.</p> <p>Medium - Use this mode in moderately bandwidth constrained environments to cap the estimated HP Velocity protection overhead at or below 40%.</p> <p>High - Use this setting to maximize performance in situations where bandwidth is not constrained and the network loss is known to be high. This setting differs from the Dynamic setting in that it immediately uses aggressive encoding as soon as it detects HP Velocity at the far end, without first measuring the loss in the network.</p> <p>The default value is Dynamic.</p>

Configuration option	Description
Flow Optimizers	
WiFi Optimizer	<p>Enable or Disable WiFi Optimizer.</p> <p>The WiFi Optimizer ensures that HP Velocity-accelerated data streams experience lower latency, lower jitter, and higher throughput in both directions.</p> <p>Available values are Checked and Unchecked, which respectively enable and disable WiFi Optimizer. The default value is Checked (enabled).</p>
TCP Optimizer	<p>Enable or Disable TCP Optimizer.</p> <p>The TCP Optimizer improves the throughput of applications like multimedia streaming and remote desktop access by modifying TCP's flow control mechanisms to perform better in WiFi environments.</p> <p>Available values are Checked and Unchecked which respectively enable and disable TCP Optimizer. The default value is Unchecked (disabled).</p>
Policy Filters	Configure the HP Velocity policy filters. See “Policy Filters” on page 45.
Advanced	Display or hide advanced configuration options on the Configuration tab. See “Advanced configuration” on page 43.
Export	<p>Export the current HP Velocity configuration to a file. For more information, see “HP Velocity Configuration Report” on page 51.</p> <p>This feature is typically used for support purposes.</p>
Set Defaults	Return all configuration settings to their original factory default settings.
Apply	Save and apply any changes made to the configuration options displayed on this tab.
Cancel	Revert any unapplied configuration changes.

Advanced configuration

When **Advanced** is selected on the Configuration tab, additional configuration options are displayed, as shown in [Figure 20](#).

Figure 20. Advanced configuration options



The screenshot shows the Configuration tab of the HP Velocity Management application. The interface is divided into several sections:

- Basic:**
 - Target Loss Rate: 0.04%
 - Link Profiler: Enabled
 - Protection: Active
 - Bandwidth Control: Dynamic
- Advanced:**
 - BLP: Auto
 - BLP Buffer: 20ms
 - Network MTU: 1492
- Flow Optimizers:**
 - WiFi Optimizer: Enabled
 - TCP Optimizer: Enabled
- Policy Filters:** Advanced
- Loss Emulation:**
 - Transmit Loss Rate (Percent): 0.00%
 - Receive Loss Rate (Percent): 0.00%

At the bottom of the configuration window, there are four buttons: Export, Set Defaults, Apply, and Cancel.



CAUTION! Always set **Loss Emulation** to 0 under normal operating conditions. Only use **Loss Emulation** for demonstration purposes.

Configuration option	Description
Basic	For Basic options, see “Basic configuration” on page 40.
Advanced	
BLP	<p>Enable or disable BLP (Burst Loss Protection) to protect against correlated loss in the network.</p> <p>NOTE: BLP may degrade performance for highly latency sensitive applications.</p> <p>Available values are:</p> <p>Off - Disable Burst Loss Protection for correlated loss.</p> <p>On - Enable Burst Loss Protection for correlated loss.</p> <p>Auto - Allow HP Velocity to determine if BLP is required and automatically turn the feature on if required.</p> <p>The default value is Auto.</p>
BLP Buffer	<p>Select the amount of packet buffering in milliseconds that HP Velocity is allowed to use when protecting against bursty or correlated loss.</p> <p>Available values are displayed in the drop-down menu and range from 10 to 100 ms in increments of 10 ms.</p> <p>The default value is 20 ms.</p>
Network MTU	<p>Specifies the network maximum transmission unit (MTU), which is the largest packet size in bytes, that can be processed within the network.</p> <p>The valid range is from 750 to 1500 bytes inclusive. A value outside this range will generate an error message.</p> <p>The default is 1492.</p>
Flow Optimizers	For Flow Optimizers, see “Basic configuration” on page 40.
Policy Filters	Configure the HP Velocity policy filters. See “Policy Filters” on page 45.
Advanced	Uncheck to return to basic configuration options. See “Basic configuration” on page 40.
Loss Emulation	

Configuration option	Description
Transmit Loss Rate (%)	Enables the network loss simulator and introduces the specified percentage of loss into the data streams being transmitted over the network. CAUTION! Use this feature for demonstration purposes only. Always set the rate to 0 under normal operating conditions.
Receive Loss Rate (%)	Enables the network loss simulator and introduces the specified percentage of loss into the data streams being received from the network. CAUTION! Use this feature for demonstration purposes only. Always set the rate to 0 under normal operating conditions.
Export	Export the current HP Velocity configuration to a file. For more information, see “ HP Velocity Configuration Report ” on page 51. This feature is typically used for support purposes.
Set Defaults	Return all configuration settings to their original factory default settings.
Apply	Save and apply any changes made to the configuration options displayed on this tab.
Cancel	Revert any unapplied configuration changes.

Policy Filters

The **Policy Filters** window provides access to view, configure, or reset HP Velocity policy filters. Administrators can use policy filters to specify the IP addresses and ports of the data streams to be accelerated with HP Velocity and the level of protection applied to the filtered data streams.



CAUTION! Changing the HP Velocity configuration settings can severely impact networking performance.

The following formats must be used when configuring the policy filters. Other formats will generate an error message.

IP Address — When entering an IP address, use a space separated list of CIDR-format IP addresses and subnet mask pairs. For example 192.168.1.0/24 145.76.53.3/32.

Port — When entering port numbers, use a space-separated list of ports. For example 80 1750 1751 .



NOTE: For a list of commonly used port numbers and brief descriptions of their related service names, see <http://www.iana.org/assignments/service-names-port-numbers/service-names-port-numbers.xml>.

Figure 21. Policy Filters configuration view

Basic

Transparent TCP Ports: 21 53 9100

Transparent UDP Ports: 53 67 68 123 500 4500 161

Special TCP Ports: 554 1720 5060 1723

Special UDP Ports: 554 5060

White TCP Ports:

White UDP Ports:

Advanced

Target Loss Rate

IP Filters:

0.4% TCP Filters:

UDP Filters:

IP Filters

Blacklist: 255.255.255.255/32

Whitelist:

To restore default settings, select **Set Defaults**. A prompt will be displayed asking whether or not settings are to be applied.

This section includes:

- [Policy filter precedence](#)
- [Port filters](#)
- [Target loss rate filters](#)
- [IP filters](#)

Policy filter precedence

When configuring multiple HP Velocity policy filters, the filters are evaluated in the following order:

1. Blacklist IP
2. Whitelist IP
3. Whitelist port
4. Transparent port
5. Special port

Port filters

The whitelist, transparent, and special port filters allow administrators to filter data streams that pass through the blacklist and whitelist IP filters (see below), by destination port. This specifies whether or not the data streams should be accelerated or require special handling by HP Velocity. Separate filters are provided for TCP and UDP ports.

The types of port filters are:

- [Whitelist port filter](#)
- [Transparent port filter](#)
- [Special port filter](#)

Whitelist port filter

If a port number is specified in the whitelist port filter (**White TCP Ports** or **White UDP Ports**), only data streams meeting the following criteria are HP Velocity-accelerated.

Transmit packets:

- The destination IP address for the data stream is not specified in the blacklist IP filter
- There are no addresses in the whitelist IP filter OR the destination IP address for the data stream is specified in the whitelist IP filter
- There are no ports in the whitelist port filter OR the destination or source port for the data stream is specified in the whitelist port filter
- The destination and source port for the data stream are not specified in the transparent port filter

Receive packets:

- The source IP address for the data stream is not specified in the blacklist IP filter
- There are no addresses in the whitelist IP filter OR the source IP address for the data stream is specified in the whitelist IP filter
- There are no ports in the whitelist port filter OR the destination or source port for the data stream is specified in the whitelist port filter
- The destination and source port for the data stream is not specified in the transparent port filter
- The source IP address is in the force IP filter

All other transmit or receive data stream not meeting these criteria will be passed through HP Velocity transparently.

Transparent port filter

The transparent port filter allows administrators to specify a list of TCP/UDP ports whose data streams will not be HP Velocity-accelerated.

Special port filter

The special port filter allows administrators to enable or disable support for specific protocols. By default, the special port filter is pre-configured to include ports which provide special protocol support, such as RSTP (554), H.323 (1720), PPTP (1723), and SIP (5060).

To disable support for a specific protocol, remove the corresponding port from the filter. For example, to disable support for RTSP, remove port 554 from the special TCP and UDP port filters.



NOTE: If a port is added to the special port filter that HP Velocity is not aware of, it will be ignored.



CAUTION! Removing a port from the special port filter may cause applications to fail.

Target loss rate filters

The target loss rate (TLR) filters allow administrators to specify the IP addresses and ports that are associated with a particular target loss rate. Separate filters are provided for each supported target loss rate.



NOTE: Before switching TLRs, select **Apply** to save any changes.



NOTE: If there are multiple matches for an accelerated stream, the most aggressive TLR is applied.

IP filters

The IP blacklist and whitelist filters allow administrators to filter the data streams received from application(s) by destination IP address. This tells HP Velocity whether or not to accelerate this stream.

When an IP filter is configured, HP Velocity examines the destination IP address of each packet received from the application(s). If the packet's destination IP address matches an IP address specified in one of the IP filters, HP Velocity takes the appropriate action. The action taken by HP Velocity depends on the IP filter to which the IP address applies, as detailed in the following subsections.

IP filter entries must include the IP address and subnet mask in CIDR format `<IP_address>/<subnet_mask>`. This allows administrators to use the filter to specify a subnet of IP addresses to process. For example, to include all of the IP addresses in the `192.168.1.x` subnet in the IP filter, add the entry `192.168.1.0/24` to the filter. This would instruct HP Velocity to process all data streams whose destination IP address is in the range of `192.168.1.1` to `192.168.1.255`. To specify a single IP address, use a subnet mask of 32, for example `192.168.1.51/32`.

The types of IP filters includes:

- [Blacklist IP filter](#)
- [Whitelist IP filter](#)

Blacklist IP filter

The first policy filter to be evaluated is the blacklist IP filter. The blacklist IP filter allows administrators to specify a list of destination IP addresses whose data streams will not be accelerated by HP Velocity.

If a data stream's destination IP address matches an IP address specified in the blacklist, that data stream will be passed on without acceleration. Administrators can use the IP blacklist in conjunction with the IP whitelist. For example, use the blacklist to exclude a specific IP addresses in a whitelisted IP filter subnet from being HP Velocity-accelerated.

Whitelist IP filter

The whitelist IP filter is evaluated after the blacklist IP filter. It applies only to those IP addresses that are not matched in the blacklist IP filter. The whitelist IP filter allows administrators to specify a list of destination IP addresses whose data streams will be accelerated by HP Velocity.

The whitelist filter is exclusive. If a whitelist filter is specified, then only the data streams meeting the following criteria will be accelerated by HP Velocity:

- The destination IP address for the data stream is not specified in the blacklist IP filter
- The destination IP address for the data stream is specified in the whitelist IP filter

All other data streams not meeting these criteria will be passed through as is.

Administrators can further filter the whitelist using the blacklist IP filter and/or the whitelist port filter:

- The blacklist IP filter allows administrators to specify a list of destination IP addresses whose data streams will not be HP Velocity accelerated. For example, use a whitelist to specify a subnet of IP addresses that will be accelerated by HP Velocity and use a blacklist to specify the destination IP addresses within the whitelisted subnet whose data streams will not be HP Velocity accelerated. For more information, see [“Blacklist IP filter”](#) on page 49.
- The whitelist port filter allows administrators to specify a list of destination ports whose data streams will be accelerated by HP Velocity. For example, to accelerate a data stream destined for port 1750, add port 1750 to the whitelist port filter. HP Velocity will then process only the data stream that meets the following criteria:
 - The destination IP address for the data stream is not specified in the blacklist IP filter
 - The destination IP address for the data stream is specified in the whitelist IP filter
 - The destination port for the data stream is specified in the whitelist port filter

HP Velocity Configuration Report

The HP Velocity Configuration Report contains extensive information about HP Velocity, its settings, and the current accelerated streams.

To generate the HP Velocity Configuration Report, select **Export** on the Configuration tab of the HP Velocity Management application. By default, the report is saved with the filename `HPVelocityConfig.txt` in the temporary folder for the current user - `C:\Users\\AppData\Local\Temp`. When generated, the report is automatically displayed in the default text editor, such as Windows Notepad.

This report has the following sections:

- **Driver Configuration** — Current configuration and internal driver settings of HP Velocity
- **Operating System** — Operating system type, configuration, and performance information for the system on which HP Velocity is installed
- **Registry Configuration** — Registry key values configured by the group policy engine
- **Statistics** — A snapshot of the current statistics
- **Accelerated Streams** — Current list of accelerated and monitored streams

Troubleshooting

This section provides the following basic troubleshooting information for HP Velocity:

- Why does the “Another version of this product is already installed.” message appear?
- Why does the “Do you want to allow the following program from an unknown publisher to make changes to your system” message appear?
- Why does a message about a driver that has not passed Windows Logo Compatibility testing appear?
- Why are there multiple protected streams for one PCoIP or RGS connection?
- Why is traffic between two HP Velocity servers only monitored?
- A procedure in this document doesn’t work.
- This troubleshooting section does not have the solution to my problem.

Why does the “Another version of this product is already installed.” message appear?

A previous version of HP Velocity is installed. It must be uninstalled before the new installation can proceed. Recent HP Remote Graphics Software (RGS) versions also include HP Velocity. If RGS is installed, before installing HP Velocity uninstall RGS, install HP Velocity, and then reinstall RGS.

Why does the “Do you want to allow the following program from an unknown publisher to make changes to your system” message appear?

During installation, this message may appear on Windows 7 and Windows Vista systems. If this message appears, select the option to allow the changes to take place. This is expected and is required for HP Velocity installation.

Why does a message about a driver that has not passed Windows Logo Compatibility testing appear?

During installation, this message may appear on Windows XP systems. If this message is displayed, allow the installation to proceed. This is expected and is required for HP Velocity installation.

Why are there multiple protected streams for one PCoIP or RGS connection?

A single RDP connection will only have one accelerated stream generated. However, for PCoIP or RGS, there will be multiple protected streams that come and go between client and server. This is an expected behavior.

Why is traffic between two HP Velocity servers only monitored?

HP Velocity-enabled servers are designed to connect with HP thin clients to form accelerated streams.

Server-to-server connections will only enter monitor mode and will not actively protect and accelerate streams.



NOTE: In the case of server-to-server connections, HP Velocity will display the green icon but will only be monitoring the active streams.

A procedure in this document doesn't work.

Before performing any installation, be sure to read the release notes and documentation for the version of HP Velocity being installed. Release notes contain last minute changes or workarounds that may not be part of the standard documentation. Carefully follow any instructions included to prepare for the procedure, as well as all steps in the procedure.

This troubleshooting section does not have the solution to my problem.

If a problem cannot be solved after reading the documentation, including release notes for the installed version of HP Velocity, visit the [HP support website](#) or contact HP customer support.

Index

Numerics

32-bit 16

64-bit 16

A

administrator privileges 16

available resources 15

C

connection broker 11

D

deployment

direct and proxied 12

direction connection 10

proxied connection 11

terminal services 13

G

gateway 12, 14

H

HP customer support 53

I

installation folder 16

installation package 16

L

License Agreement 16

P

physical server 15

protocol

PCoIP 53

RDP 17, 53

RGS 53

R

remote services connection 17

S

statistics counters 14

T

terminal services 9

V

virtual desktop 10, 15

W

warning message 17

Windows 7 16

Windows Server 2008 16

Windows Vista 16

Windows XP 16