

Clearswift SECURE Gateways

Hardware Compatibility List

Version 3.8

September 2013

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1 Introduction

Clearswift offers the SECURE Email Gateway (3.6) and SECURE Web Gateway (3.0) as a software download to supplement the pre-built hardware ranges based upon Dell hardware. This increases customer choice and provides the ability to scale the hardware platform beyond the biggest units that Clearswift currently ship.

As the Gateway is a security product the underlying platform has been hardened accordingly. The Linux distribution is based on the LFS distribution, kernel version V3.2.44 and contains a reduced set of device drivers and system services to only support the functions required to perform its task and also reduce its kernel size. The Gateway, therefore, cannot be supported on every Intel based hardware platform whether or not that platform supports the Linux distribution detailed above.

There are, however, a number of device drivers included in the Gateway's kernel for a variety of common network cards and disk controllers from the major peripheral vendors, permitting support for a broad subset of x86-based servers from:

- Dell (7-13G series)
- IBM (x series)
- HP (DL/ML series)

2 Sizing

When considering sizing the hardware chassis you must remember that Clearswift Gateways consist of an Operating System and hence will overwrite the boot disk of the machine. Our license restricts you from loading any other software onto that machine after you have installed the Gateway, so a dedicated device is required for this purpose.

Customers should be aware of the functionality of the products and size according:

- If customers want to store large quantities of messages, they should consider larger disks.
- If customers want to store audit (reporting data) for lengthy time periods then larger faster disks maybe necessary.
- The Web Gateway supports SSD drives for Caching
- Image processing is quite CPU intensive especially with large images, so consider processor speeds when selecting a processor.
- Where possible consider deploying 4GB regardless of system size, to allow the Linux file-system to use free memory for caching.
- For systems with a heavy workload or very large files are being used you can deploy 6Gb of RAM to make use the of the PAE extensions built into the kernel

Clearswift Gateways use 1 logical volume, so any distribution of file-systems for performance or resilience should be performed through the use of hardware RAID controllers. The Clearswift Gateway has been tested in RAID 1, 5 and 0+1 configurations. Depending on the Raid controller options, maximum performance can typically be achieved when you can set the Raid adaptor to “Write Back” caching.

Our general recommendations for Email Gateway hardware are:

Message Volume	Processor	Number of Processors	Memory	Disk	Raid
Low (<20,000 per hour)	Dual Core	1	4GB	320GB+ SATA/SCSI	Optional
Medium (<50,000 per hour)	Dual/Quad Core Xeon	1	4GB	320GB+ SATA/SCSI	Optional
High (<60,000 per hour)	Dual/Quad Core Xeon	1	6GB	2 x SAS 15k RPM	Yes (1)
Very High (>60,000 per hour)	Quad Core Xeon	2	6GB	Multiple SAS 15k RPM	Yes (1, 10)

Our general recommendations for Web Gateway hardware are:

Number of Users	Processor	Number of Processors	Memory	Disk	Raid
Low (up to 200 total users)	Dual Core	1	4GB	320GB+ SATA	Optional
Medium (up to 500 total users)	Dual/Quad Core Xeon	1	4GB	320GB+ SATA	Optional
High (up to 2500 total users)	Quad Core Xeon	2	6GB	3x 146GB+ SAS	Yes (5)

Note: Clearswift recommends that all systems should be based on multiple cored processors to provide the best performance with a multi-threaded workload such as Email and Web scanning.

Clearswift do not support Intel P3 and earlier (including AMD equivalents) processors.

3 Dell Platforms

The following tables define the hardware on which the Gateways have been tested by Clearswift:

Chassis	Processors	Memory	Disks	Raid Controller	Network Controller
Dell R210	Xeon	2GB	SATA	No	Broadcom
Dell 1850	Xeon	1-4GB	SCSI	PERC4	Broadcom
Dell 1950	DC Xeon	2-4GB	SAS	PERC5	Broadcom
Dell 1950	Quad Core	2GB	SAS	PERC6	Broadcom
Dell R610	Quad Core	4GB	SAS	PERC6	Broadcom
Dell 2850	Xeon	2-4GB	SCSI	PERC4	Broadcom
Dell 2950	Quad Core	4GB	SAS	PERC6	Broadcom
Dell 6850	DC Xeon	2-4GB	SAS	PERC5	Broadcom
Dell R620	2 x Quad Core	8Gb	SAS	H710	Broadcom

Note: Customers can now use H720 controllers with SEG 3.5 and SWG 2.6

The following models have also been used by customers in the field:

PowerEdge 1750	PowerEdge 1955	PowerEdge 2550	PowerEdge R310
PowerEdge 2800	PowerEdge 350	PowerEdge 840	PowerEdge 850
PowerEdge R300	PowerEdge R410	PowerEdge SC440	Dimension 470
PowerEdge T105	PowerEdge SC1425	PowerEdge R1955	PowerEdge R710
PowerEdge R200	PowerEdge T105	PowerEdge T110	PowerEdge R210-II
PowerEdge R420	PowerEdge R310	PowerEdge R720	PowerEdge R320

Note: Support for Dell PowerEdge 6G (1650, 2650) servers is no longer supported in this release

4 IBM Platforms

The following tables define the hardware on which the Gateways have been tested by Clearswift:

Chassis	Processor	Memory	Disks	Raid Controller	Network Controller
X3250	Xeon	1-2GB	SATA	No	Broadcom
X346	Xeon/Dual Core Xeon	2-4GB	SCSI	Adaptec AIC 7902	Broadcom 5721
X335	Xeon	1-2GB	SCSI	LSI-Logic	Broadcom
X336	DC Xeon	1-2GB	SCSI	LSI-Logic	Broadcom
X3550	DC Xeon	1-2GB	SAS	Adaptec	Broadcom
X360	Xeon	1-2GB	SCSI	Adaptec	Intel
X365	Xeon	1-2GB	SCSI		
X366	Xeon	1-2GB	SAS	Adaptec	Broadcom
HS20 BladeCenter	Xeon	2-4GB	SAS		
LS20 BladeCenter	Opteron	2-4GB	SCSI		
HS21	DC Xeon	2-4GB	SAS		

The following models have also been used by customers in the field:

eServer xSeries 232	eServer xSeries 335	eServer xSeries 336	System x3350
System x3650	System x3500	System x3610	System x3250 M2
System x3550 M4	System x3850	BladeCenter HS12	System x3250 M4

5 HP Platforms

The following tables define the hardware on which the Gateways have been tested by Clearswift:

Chassis	Processor	Memory	Disks	Raid Controller	Network Controller
DL360 G3	Xeon	1-2GB	SCSI	Smart Array 5i	Broadcom
DL380 G5	DC Xeon	1-2GB	SAS	Smart Array	Broadcom
DL360 G8	2 x Quad Core	8Gb	SAS	P420i	Broadcom

The following models have also been used by customers in the field:

ProLiant BL20p G2	ProLiant BL20p G3	ProLiant BL35p G1	ProLiant BL460 G1
ProLiant BL465c G1	ProLiant DL320 G3	ProLiant DL360 G2	ProLiantDL360 G4
ProLiantDL360 G5	ProLiant DL365 G1	ProLiant DL380 G2	ProLiant DL380 G3
ProLiant DL380 G4	ProLiant DL385 G2	ProLiant DL585 G2	ProLiant ML370
ProLiant ML570	HP Netserver	HP d530	ProLiant DL380 G5
ProLiant DL360 G3	ProLiant ML150 G3	ProLiant DL360 G6	ProLiant BL460c G6
ProLiant BL465c G1	ProLiant BL20p G2	ProLiant BL20p G3	ProLiant DL320 G6
ProLiant DL180 G6	ProLiant DL160 G6	ProLiant DL320 G4	ProLiant ML310 G4
ProLiant DL380 G6	ProLiant BL25p G1	ProLiant DL388 G7	ProLiant DL360 G7
ProLiant DL380 G7	ProLiant DL385 G7	ProLiant DL360p Gen8	ProLiant DL160 Gen8
ProLiant DL360e Gen8	ProLiant DL380p Gen8		

6 Hitachi Platforms

The following table defines the hardware on which the Gateways have been tested by Clearswift:

Chassis	Processor	Memory	Disks	Raid Controller	Network Controller
HA8000	Quad Core	4GB	SATA	LSI Megaraid	?

7 Fujitsu Platforms

The following table defines the hardware on which the Gateways have been tested by Clearswift:

Chassis	Processor	Memory	Disks	Raid Controller	Network Controller
Primergy RX200 S4	Dual Core	4GB	SATA	Adaptec	Broadcom NetXtreme

8 SuperMicro Platforms

The following table defines the hardware on which the Gateways have been tested by Clearswift:

Chassis	Processor	Memory	Disks	Raid Controller	Network Controller
5016I-MRF	Dual Core	4GB	SATA	N/A	Intel Gigabit
1026T-URF	Quad Core	6Gb	SAS	Adaptec S8iR	Intel Gigabit
5016Ti-TF	Dual Core	4GB	SATA	N/A	Intel Gigabit

9 Caveats

This document describes hardware models that have either been explicitly tested by Clearswift or which Clearswift believes should be capable of supporting a Clearswift Gateway deployment. Please note, even though a chassis may be listed in the table, it does not mean that it is guaranteed to work due to potential vendor variations in controller versions or additional peripherals that may be supplied with the unit.

By providing the customers with a means to deploy the Gateway onto their specific choice of hardware, Clearswift cannot guarantee the performance nor can Clearswift guarantee the behavior of a product with regard to the hardware handling of non-Dell based servers.

Clearswift will not support customers, under the terms of the Gateway standard support contract, who modify the operating system by installing additional software components or who modify the operating system or product configuration files.

Clearswift suggest that customers intending to deploy on a hardware platform not listed in this document should contact Clearswift Product Management (ukproductmanagement@clearswift.com) to seek advice prior to deployment.