IBM System Storage Multilevel Grid Access Manager v2.1.3
IBM Storage and Server Interoperability Matrix

Last update: October 20, 2010

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Hardware Support Policy

This policy determines the length of time we will test a given piece of hardware with new levels of GAM code:

o   Hardware interoperability introduced in any release of GAM will remain current and be tested for software upgrades for all new releases of GAM for at least three years. For example, hardware which first appears in this interoperability matrix in January 2007 will be tested for all releases of GAM in 2007, 2008, and 2009. Hardware that is still shipping and current will continue to be tested beyond this commitment.
o   Hardware interoperability will be supported at the last tested software level, until the hardware's end of support date –or– Bycast's end of support for that software level or interoperability of that software level with the level of grid software the customer is running on other nodes. What this means is that a piece of hardware introduced in GAM version n which we do not test in GAM version n+3 (three releases after GAM version n) will nevertheless be supported running GAM n+2 for as long as Bycast supports GAM n+2, and there is still underlying hardware support available for the device.
o   NOTE: Bycast currently supports interoperability of different software levels in the same grid only during an upgrade.

For example:
2007 = GAM n = hardware XYZ introduced
2008 = GAM n+1 = hardware XYZ retested, customer can upgrade GAM SW on existing HW
2009 = GAM n+2 = hardware XYZ retested, customer can upgrade GAM SW on existing HW
2010 = GAM n+3 = hardware XYZ NOT retested, but customer can continue to run on GAM n+2 SW on hardware XYZ for as long as GAM n+2 SW is supported by Bycast and hardware XYZ is supported by the hardware supplier.

So if hardware XYZ was purchased in 2007 it would be supported on the latest GAM software version until GAM n+3 becomes generally available in 2010, and beyond that for as long as GAM n+2 software is supported by Bycast. Devices like tape are not directly supported by GAM; rather they fall under TSM's SW support cycle and GAM merely talks to TSM. Nevertheless, longer–lived devices GAM does directly talk to would continue to be tested with new releases as long as they are shipping and current.

IBM BladeCenter Configurations

BladeCenter Chassis

BladeCenter Hardware/Firmware

BladeCenter H Chassis
2 Multi-switch Interconnect Module for IBM BladeCenter
Ethernet Connectivity Options
      Server Connectivity Module for IBM BladeCenter
      Cisco Systems Intelligent GbE Switch Module for IBM BladeCenter
      Cisco Systems Fiber Intelligent Gigabit Ethernet Switch Module

      2 modules requires for all configurations
      2 additional modules (total of 4) are required if any of the following node types
            will be installed in the chassis:
            Admin Node
            Admin/Gateway Node
            Archive Node (only if node is communication with a TSM/SSAM server not
            on the grid network)
            Gateway Node – High Availability
            Gateway Node – Redundant
Fibre Channel Connectivity Options
      2 Brocade 8GB SAN Switch Module for IBM BladeCenter
      2 Cisco Systems 4GB Fibre Channel Switch Module

      NOTE – the switch modules installed in the chassis must be a Vendor match to
            any external switch they will be connected to
      NOTE – a sufficient number of SFPs are required for connection of external
            storage and/or ISLs
4 Power Supply Modules
2 IBM BladeCenter KVM/Advanced Management Module

Advanced Management Module Firmware	bpet54l
Brocade 8GB SAN Switch Module Firmware	v6.3.1b
Cisco Systems 4GB SAN Switch Module Firmware	v3.3.2/v4.2.3/v5.0.1a
QLogic 8GB SAN Switch Module Firmware	v7.10.1.04.00
Server Connectivity Module Firmware	v1.1.3.0
Cisco Systems Intelligent GbE Switch Module	v12.2–55.SE
Cisco Systems Fibre Intelligent Gigabit Ethernet Switch Module	v12.2–55.SE

For the latest support levels of hardware and firmware and to download the appropriate
drivers and firmware, please review the following links

IBM BladeCenter H Chassis

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/BladeCenter/BladeCenter_H_Chassis

Admin Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60–0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60–0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504–1

Blade Hardware/Firmware

The Admin node is supported when installed on the IBM BladeCenter HS22 with the minimum configuration below.

1 Quad–Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
QLogic Ethernet and 8Gb Fibre Channel Expansion Card (CFFh) for IBM BladeCenter
IBM ServeRAID–MR10ie (CIOv) Controller for IBM BladeCenter with Battery
2 73GB SAS 15k 2.5 inch SFF Slim–HS HDD, configured as 1 RAID 1 array

2 300GB 15k FC or SAS HDDs, configured as a RAID 1 array on supported external storage for Audit Logs and the NMS DB

IBM BladeCenter HS22 UEFI	v1.09 or later
IBM BladeCenter HS22 IMM Firmware	v1.14 or later
ServeRAID MR10ie Firmware	v11.0.1–0024
ServeRAID MR10ie Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Firmware	vf5.03.06–b2.09–e2.27 or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM BladeCenter HS22

http://www–947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/BladeCenter/BladeCenter_HS22/7870/

Storage Options

Refer to the following appendices for supported storage attachment options.

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Admin/Gateway Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60–0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60–0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504–1

Blade Hardware/Firmware

The Admin/Gateway node is supported when installed on the IBM BladeCenter HS22 with the minimum configuration below.

1 Quad–Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
QLogic Ethernet and 8Gb Fibre Channel Expansion Card (CFFh) for IBM BladeCenter
IBM ServeRAID–MR10ie (CIOv) Controller for IBM BladeCenter with Battery
2 73GB SAS 15k 2.5 inch SFF Slim–HS HDD, configured as 1 RAID 1 array

2 300GB 15k FC or SAS HDD, configured as a RAID 1 array on supported external
      storage for Audit Logs and the NMS DB
2–12 300GB 15k FC or SAS HDD (in increments of two), configured as a RAID 1/RAID10
      array on supported external storage for the FSG Cache

IBM BladeCenter HS22 UEFI	v1.09 or later
IBM BladeCenter HS22 IMM Firmware	v1.14 or later
ServeRAID MR10ie Firmware	v11.0.1–0024
ServeRAID MR10ie Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Firmware	vf5.03.06–b2.09–e2.27 or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM BladeCenter HS22

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/BladeCenter/BladeCenter_HS22/7870/

Storage Options

Refer to the following appendices for supported storage attachment options.

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Archive Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1
IBM TSM/SSAM Client Software	v5.5 or v6.1

Blade Hardware/Firmware

The Archive node is supported when installed on the IBM BladeCenter HS22 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
QLogic Ethernet and 8Gb Fibre Channel Expansion Card (CFFh) for IBM BladeCenter
    (required only if node is communicating with a TSM/SSAM server not on the grid
    network)
IBM ServeRAID-MR10ie (CIOv) Controller for IBM BladeCenter with Battery
2 73GB SAS 15k 2.5 inch SFF Slim-HS HDD, configured as 1 RAID 1 array

IBM BladeCenter HS22 UEFI	v1.09 or later
IBM BladeCenter HS22 IMM Firmware	v1.14 or later
ServeRAID MR10ie Firmware	v11.0.1-0024
ServeRAID MR10ie Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Firmware	vf5.03.06-b2.09-e2.27 or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM BladeCenter HS22

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/BladeCenter/BladeCenter_HS22/7870/

Storage Options

IBM TSM Server	v5.5 or later
IBM SSAM	v5.5 or later

IBM System Storage Multilevel Grid Access Manager v2.1.3
IBM Storage and Server Interoperability Matrix

Control Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1

Blade Hardware/Firmware

The Control node is supported when installed on the IBM BladeCenter HS22 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
QLogic Ethernet and 8Gb Fibre Channel Expansion Card (CFFh) for IBM BladeCenter
IBM ServeRAID-MR10ie (CIOv) Controller for IBM BladeCenter with Battery
2 73GB SAS 15k 2.5 inch SFF Slim-HS HDD, configured as 1 RAID 1 array

4 300GB 15k FC or SAS HDD, configured as a RAID 10 array on supported external
      storage for the CMS DB

IBM BladeCenter HS22 UEFI	v1.09 or later
IBM BladeCenter HS22 IMM Firmware	v1.14 or later
ServeRAID MR10ie Firmware	v11.0.1-0024
ServeRAID MR10ie Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Firmware	vf5.03.06-b2.09-e2.27 or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM BladeCenter HS22

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/BladeCenter/BladeCenter_HS22/7870/

Storage Options

Refer to the following appendices for supported storage attachment options.

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Control/Storage Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1

Blade Hardware/Firmware

The Control/Storage node is supported when installed on the IBM BladeCenter HS22 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
QLogic Ethernet and 8Gb Fibre Channel Expansion Card (CFFh) for IBM BladeCenter
IBM ServeRAID-MR10ie (CIOv) Controller for IBM BladeCenter with Battery
2 73GB SAS 15k 2.5 inch SFF Slim-HS HDD, configured as 1 RAID 1 array

4 300GB 15k FC or SAS HDD, configured as a RAID 10 array on supported external
    storage for the CMS DB

IBM BladeCenter HS22 UEFI	v1.09 or later
IBM BladeCenter HS22 IMM Firmware	v1.14 or later
ServeRAID MR10ie Firmware	v11.0.1-0024
ServeRAID MR10ie Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Firmware	vf5.03.06-b2.09-e2.27 or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM BladeCenter HS22

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/BladeCenter/BladeCenter_HS22/7870/

Storage Options

Refer to the following appendices for supported storage attachment options.

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Gateway Node – High Availability

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60–0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60–0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504–1

Blade Hardware/Firmware

The Gateway node is supported when installed on the IBM BladeCenter HS22 with the minimum configuration below.

1 Quad–Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
QLogic Ethernet and 8Gb Fibre Channel Expansion Card (CFFh) for IBM BladeCenter
IBM ServeRAID–MR10ie (CIOv) Controller for IBM BladeCenter with Battery
2 73GB SAS 15k 2.5 inch SFF Slim–HS HDD, configured as 1 RAID 1 array

4–12 300GB 15k FC or SAS HDD (in increments of two), configured as a RAID 10 array
on supported external storage for the FSG Cache

IBM BladeCenter HS22 UEFI	v1.09 or later
IBM BladeCenter HS22 IMM Firmware	v1.14 or later
ServeRAID MR10ie Firmware	v11.0.1–0024
ServeRAID MR10ie Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Firmware	vf5.03.06–b2.09–e2.27 or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM BladeCenter HS22

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/BladeCenter/BladeCenter_HS22/7870/

Storage Options

Refer to the following appendices for supported storage attachment options.

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Gateway Node - Redundant

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1

Blade Hardware/Firmware

The Gateway node is supported when installed on the IBM BladeCenter HS22 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
QLogic Ethernet and 8Gb Fibre Channel Expansion Card (CFFh) for IBM BladeCenter
IBM ServeRAID-MR10ie (CIOv) Controller for IBM BladeCenter with Battery
2 73GB SAS 15k 2.5 inch SFF Slim-HS HDD, configured as 1 RAID 1 array

4-12 300GB 15k FC or SAS HDD (in increments of two), configured as a RAID 10 array
    on supported external storage for the FSG Cache

IBM BladeCenter HS22 UEFI	v1.09 or later
IBM BladeCenter HS22 IMM Firmware	v1.14 or later
ServeRAID MR10ie Firmware	v11.0.1-0024
ServeRAID MR10ie Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Firmware	vf5.03.06-b2.09-e2.27 or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM BladeCenter HS22

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/BladeCenter/BladeCenter_HS22/7870/

Storage Options

Refer to the following appendices for supported storage attachment options.

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Storage Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60–0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60–0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504–1

Blade Hardware/Firmware

The Storage node is supported when installed on the IBM BladeCenter HS22 with the minimum configuration below.

1 Quad–Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
QLogic Ethernet and 8Gb Fibre Channel Expansion Card (CFFh) for IBM BladeCenter
IBM ServeRAID–MR10ie (CIOv) Controller for IBM BladeCenter with Battery
2 73GB SAS 15k 2.5 inch SFF Slim–HS HDD, configured as 1 RAID 1 array

IBM BladeCenter HS22 UEFI	v1.09 or later
IBM BladeCenter HS22 IMM Firmware	v1.14 or later
ServeRAID MR10ie Firmware	v11.0.1–0024
ServeRAID MR10ie Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Firmware	vf5.03.06–b2.09–e2.27 or later
QLogic Ethernet and 8GB Fibre Channel Expansion Card (CFFh) Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM BladeCenter HS22

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/BladeCenter/BladeCenter_HS22/7870/

Storage Options

Refer to the following appendices for supported storage attachment options.

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IBM System X Configurations

Admin Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1

Server Hardware/Firmware

The Admin node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Dual port 1Gb Ethernet Daughter Card
Internal RAID options
    IBM ServeRAID-MR10i SAS Controller with Li-Ion battery option
    IBM ServeRAID- M5015 SAS Controller with Li-Ion battery option
4 73GB 15K 2.5 inch Slim Hot-Swap SAS HDD, configured as two RAID 1 arrays
2 146GB 15k 2.5 inch Slim Hot-Swap SAS HDD, configured as one RAID 1 array
Dual Power Supplies

Optional Supported Components
        Remote present hardware key

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1-0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1-0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

Not Applicable

Admin/Gateway Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1

Server Hardware/Firmware

The Admin/Gateway node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Dual port 1Gb Ethernet Daughter Card
Internal RAID options
    IBM ServeRAID-MR10i SAS Controller with Li-Ion battery option
    IBM ServeRAID- M5015 SAS Controller with Li-Ion battery option
2 73GB 15K 2.5 inch Slim Hot-Swap SAS HDD, configured as one RAID 1 arrays
4 300GB 10k 2.5 inch Slim Hot-Swap SAS HDD, configured as two RAID 1 array
Dual Power Supplies

Optional Supported Components
    Remote present hardware key

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1-0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1-0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

Not Applicable

Admin/Gateway Node with External Disk for FSG Cache

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60–0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60–0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504–1

Server Hardware/Firmware

The Admin/Gateway node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad–Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Dual port 1Gb Ethernet Daughter Card
Storage Adapter Card – refer to the Storage Options section below for specifics
Internal RAID options
    IBM ServeRAID–MR10i SAS Controller with Li–Ion battery option
    IBM ServeRAID– M5015 SAS Controller with Li–Ion battery option
4 73GB 15K 2.5 inch Slim Hot–Swap SAS HDD, configured as one RAID 1 arrays
2 146GB 15k 2.5 inch Slim Hot–Swap SAS HDD, configured as two RAID 1 array
Dual Power Supplies

Optional Supported Components
    Remote present hardware key

2–12 300GB 15k SAS HDD (in increments of two), configured as a RAID 1/RAID 10 array
    on supported external storage for the FSG Cache

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1–0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1–0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

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Admin/Gateway/Control/Storage Node (GMAS-L only)

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1

Server Hardware/Firmware

The Admin/Gateway/Control/Storage node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Dual port 1Gb Ethernet Daughter Card
Storage Adapter Card – refer to the Storage Options section below for specifics
Internal RAID options
     IBM ServeRAID-MR10i SAS Controller with Li-Ion battery option
     IBM ServeRAID- M5015 SAS Controller with Li-Ion battery option
6 300GB 10k 2.5 inch Slim Hot-Swap SAS HDD, configured as one RAID 1 array and one
        RAID 10 array
Dual Power Supplies

Optional Supported Components
        Remote present hardware key

2 450GB 15k SAS HDD, configured as a RAID 1 array on supported external storage for
        the FSG Cache

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1-0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1-0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

Refer to the following appendices for supported storage attachment options.

Appendix A

Archive Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1
IBM TSM/SSAM Client Software	v5.5 or v6.1

Server Hardware/Firmware

The Archive node is supported when installed on the IBM System X x3550 M2 with the following minimum configuration:

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Dual port 1Gb Ethernet Daughter Card (only required if node is communicating with a TSM/SSAM server not on the grid network)
Storage Adapter Card – refer to the Storage Options section below for specifics
Internal RAID options
    IBM ServeRAID-MR10i SAS Controller with Li-Ion battery option
    IBM ServeRAID- M5015 SAS Controller with Li-Ion battery option
2 73GB 15k 2.5 inch Slim Hot-Swap SAS HDD, configured as one RAID 1 array
Dual Power Supplies

Optional Supported Components
      Remote present hardware key

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1-0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1-0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

IBM TSM Server   v5.5 or later
IBM SSAM   v5.5 or later

Control Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1

Server Hardware/Firmware

The Control node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Internal RAID options
    IBM ServeRAID-MR10i SAS Controller with Li-Ion battery option
    IBM ServeRAID- M5015 SAS Controller with Li-Ion battery option
2 73GB 15k 2.5 inch Slim Hot-Swap SAS HDD, configured as one RAID 1 array
4 300GB 10k 2.5 inch Slim Hot-Swap SAS HDD, configured as one RAID 10 array
Dual Power Supplies

Optional Supported Components
        Remote present hardware key

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1-0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1-0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

Not Applicable

Control/Storage Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60–0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60–0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504–1

Server Hardware/Firmware

The Control/Storage node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad–Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Storage Adapter Card – refer to the Storage Options section below for specifics
Internal RAID options
    IBM ServeRAID–MR10i SAS Controller with Li–Ion battery option
    IBM ServeRAID– M5015 SAS Controller with Li–Ion battery option
2 73GB 15k 2.5 inch Slim Hot–Swap SAS HDD, configured as one RAID 1 array
4 300GB 10k 2.5 inch Slim Hot–Swap SAS HDD, configured as one RAID 10 array
Dual Power Supplies

Optional Supported Components
      Remote present hardware key

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1–0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1–0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

Refer to the following appendices for supported storage attachment options.

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Gateway Node – High Availability

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60–0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60–0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504–1

Server Hardware/Firmware

The Gateway node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad–Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Dual port 1Gb Ethernet Daughter Card
1 PRO/1000 PT Dual Port Server Adapter by Intel – PCI–E
Internal RAID options
    IBM ServeRAID–MR10i SAS Controller with Li–Ion battery option
    IBM ServeRAID– M5015 SAS Controller with Li–Ion battery option
2 73GB 15k 2.5 inch Slim Hot–Swap SAS HDD, configured as one RAID 1 array
4 300GB 10k 2.5 inch Slim Hot–Swap SAS HDD, configured as one RAID 1 array
Dual Power Supplies

Optional Supported Components
    Remote present hardware key

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1–0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1–0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

Not Applicable

Gateway Node with External Disk for FSG Cache – High Availability

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60–0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60–0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504–1

Server Hardware/Firmware

The Gateway node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad–Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Dual port 1Gb Ethernet Daughter Card
1 PRO/1000 PT Dual Port Server Adapter by Intel – PCI–E
Storage Adapter Card – refer to the Storage Options section below for specifics
Internal RAID options
    IBM ServeRAID–MR10i SAS Controller with Li–Ion battery option
    IBM ServeRAID– M5015 SAS Controller with Li–Ion battery option
2 73GB 15k 2.5 inch Slim Hot–Swap SAS HDD, configured as one RAID 1 array
Dual Power Supplies

Optional Supported Components
    Remote present hardware key

4–12 300GB 15k SAS HDD (in increments of two), configured as a RAID 10 array on
    supported external storage for the FSG Cache

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1–0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1–0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

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Gateway Node - Redundant

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1

Server Hardware/Firmware

The Gateway node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Dual port 1Gb Ethernet Daughter Card
Internal RAID options
    IBM ServeRAID-MR10i SAS Controller with Li-Ion battery option
    IBM ServeRAID- M5015 SAS Controller with Li-Ion battery option
2 73GB 15k 2.5 inch Slim Hot-Swap SAS HDD, configured as one RAID 1 array
4 300GB 10k 2.5 inch Slim Hot-Swap SAS HDD, configured as one RAID 1 array
Dual Power Supplies

Optional Supported Components
        Remote present hardware key

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1-0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1-0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

Not Applicable

Gateway Node with External Disk for FSG Cache – Redundant

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1

Server Hardware/Firmware

The Gateway node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Dual port 1Gb Ethernet Daughter Card
Storage Adapter Card – refer to the Storage Options section below for specifics
Internal RAID options
    IBM ServeRAID-MR10i SAS Controller with Li-Ion battery option
    IBM ServeRAID- M5015 SAS Controller with Li-Ion battery option
2 73GB 15k 2.5 inch Slim Hot-Swap SAS HDD, configured as one RAID 1 array
Dual Power Supplies

Optional Supported Components
    Remote present hardware key

4-12 300GB 15k SAS HDD (in increments of two), configured as a RAID 10 array on
    supported external storage for the FSG Cache

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1-0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1-0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-
947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x
3550_M2/

Storage Options

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Gateway/Control/Storage Node (GMAS-L only)

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60–0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60–0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504–1

Server Hardware/Firmware

The Gateway/Control/Storage node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad–Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Dual port 1Gb Ethernet Daughter Card
Storage Adapter Card – refer to the Storage Options section below for specifics
Internal RAID options
    IBM ServeRAID–MR10i SAS Controller with Li–Ion battery option
    IBM ServeRAID– M5015 SAS Controller with Li–Ion battery option
6 300GB 10k 2.5 inch Slim Hot–Swap SAS HDD, configured as one RAID 1 array and one
      RAID 10 array
Dual Power Supplies

Optional Supported Components
      Remote present hardware key

2 450GB 15k SAS HDD, configured as a RAID 1 array on supported external storage for
      the FSG Cache

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1–0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1–0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

Storage Options

Refer to the following appendices for supported storage attachment options.

Appendix A

Storage Node

Software

SUSE Linux Enterprise Server 10 SP3 Kernel	2.6.16.60-0.54.5
SUSE Linux Enterprise Server 10 SP2 Kernel	2.6.16.60-0.21
IBM System Storage Multilevel Grid Access Manager Software	v2.1.3_8.1.0
Bycast Enablement Layer Software	v3.5.0
IBM System Storage Multilevel Grid Access Manager Software Service Pack	v2.1.3.3_8.1.3
Bycast Enablement Layer Software Service Pack	v3.5.3
IBM Director Common Agent	v6.1
LSI MR Provider	v00.05.0504-1

Server Hardware/Firmware

The Storage node is supported when installed on the IBM System X x3550 M2 with the minimum configuration below.

1 Quad-Core Intel Xeon Processor E5530 – 2.40GHz
4GB RAM
Storage Adapter Card – refer to the Storage Options section below for specifics
Internal RAID options
    IBM ServeRAID-MR10i SAS Controller with Li-Ion battery option
    IBM ServeRAID- M5015 SAS Controller with Li-Ion battery option
2 73GB 15k 2.5 inch Slim Hot-Swap SAS HDD, configured as one RAID 1 array
Dual Power Supplies

Optional Supported Components
       Remote present hardware key

IBM BladeCenter x3550 M2 UEFI	v1.08
IBM BladeCenter x3550 M2 IMM Firmware	v1.14
ServeRAID MR10i Firmware	v11.0.1-0024
ServeRAID MR10i Driver	00.00.04.17.1 or later
ServeRAID M5015 Firmware	V12.0.1-0097
ServeRAID M5015 Driver	00.00.04.17.1 or later
Broadcom NIC Firmware	v2.1.3c or later
Broadcom NIC Driver	V2.0.8e or later
IBM SAS Hard drive Update	v1.07.01 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System X x3550 M2

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/Systems/System_x/System_x3550_M2/

Storage Options

Refer to the following appendices for supported storage attachment options.

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Appendix A – IBM System Storage DS3200 Storage Option

IBM System Storage DS3200

Storage Adapter Options – IBM System X servers only
       1 IBM 3Gb SAS HBA Controller v2 (for single controller configurations)
       2 IBM 3Gb SAS HBA Controller v2 (for dual controller configurations)

IBM 3Gb SAS HBA Controller v2 Firmware	v2.71 or later
IBM 3Gb SAS HBA Controller v2 Driver	v4.22.80.03 or later
IBM System Storage DS3200 Firmware	07.35.57.00 or later
IBM System Storage DS3000 EXP3000 Firmware	v1.96 or later
IBM System Storage DS3000 RDAC[1]	v09.03.0c05.0331 or later
IBM System Storage DS3000 SAS/SATA Hard drive update	v4.7 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System Storage DS3200

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/System_Storage/Disk_systems/Entry-level_disk_systems/DS3200/

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[1] Only required when using a dual controller configuration

Appendix B – IBM System Storage DS3400 Storage Option

<u>IBM System Storage DS3400</u>

Storage Adapter Options – IBM System X servers only
    1 QLogic 8GB FC Dual Port PCIe HBA

QLogic 8Gb FC Dual Port PCIe HBA Firmware	v2.01 or later
QLogic 8Gb FC Dual Port PCIe HBA Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM System Storage DS3400 Firmware	07.35.57.00 or later
IBM System Storage DS3000 EXP3000 Firmware	v1.96 or later
IBM System Storage DS3000 RDAC[2]	v09.03.0c05.0331 or later
IBM System Storage DS3000 SAS/SATA Hard drive update	v4.7 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System Storage DS3400

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/System_Storage/Disk_systems/Entry-level_disk_systems/DS3400/

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[2] Only required when using a dual controller configuration

Appendix C – IBM System Storage DS3500 Storage Option

IBM System Storage DS3400

Storage Adapter Options – IBM System X servers only
      2 IBM 3Gb SAS HBA Controller v2
      1 QLogic 8GB FC Dual Port PCIe HBA

IBM 3Gb SAS HBA Controller v2 Firmware	v2.71 or later
IBM 3Gb SAS HBA Controller v2 Driver	v4.22.80.03 or later
QLogic 8Gb FC Dual Port PCIe HBA Firmware	v2.01 or later
QLogic 8Gb FC Dual Port PCIe HBA Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM System Storage DS3400 Firmware	07.70.16.01 or later
IBM System Storage DS3000 EXP3000 Firmware	v3.16 or later
IBM System Storage DS3000 RDAC	v09.03.0c05.0331 or later
IBM System Storage DS3000 SAS/SATA Hard drive update	v4.7 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System Storage DS3500

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/System_Storage/Disk_systems/Entry-level_disk_systems/DS3500_%28DS3512,_DS3524%29

Appendix D – IBM System Storage DS4000 Storage Option

IBM System Storage DS4700 Express

Storage Adapter Options – IBM System X servers only
     1 QLogic 8GB FC Dual Port PCIe HBA

QLogic 8Gb FC Dual Port PCIe HBA Firmware	v2.01 or later
QLogic 8Gb FC Dual Port PCIe HBA Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM System Storage DS4700 Firmware	07.60.40.00 or later
IBM System Storage DS4000 EXP810 Firmware	v1.69 or later
IBM System Storage DS4000 RDAC	v09.03.0c05.0331 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System Storage DS4700 Express

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/System_Storage/Disk_systems/Mid-range_disk_systems/DS4700_Express/

Appendix E – IBM System Storage DS5100/DS5300 Storage Option

IBM System Storage DS5100/DS5300

Storage Adapter Options – IBM System X servers only
     1 QLogic 8GB FC Dual Port PCIe HBA

QLogic 8Gb FC Dual Port PCIe HBA Firmware	v2.01 or later
QLogic 8Gb FC Dual Port PCIe HBA Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM System Storage DS5100/DS5300 Firmware	07.70.23.00 or later
IBM System Storage EXP5000 Firmware	v1.69 or later
IBM System Storage EXP810 Firmware	v1.69 or later
IBM System Storage DS5000 RDAC	v09.03.0c05.0331 or later

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM System Storage DS5100

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/System_Storage/Disk_systems/Mid-range_disk_systems/DS5100/

IBM System Storage DS5300

http://www-947.ibm.com/support/entry/portal/Downloads/Hardware/System_Storage/Disk_systems/Mid-range_disk_systems/DS5300/

Appendix F – IBM XIV Storage System Option

IBM XIV Storage System

Storage Adapter Options – IBM System X servers only
        1 QLogic 8GB FC Dual Port PCIe HBA

QLogic 8Gb FC Dual Port PCIe HBA Firmware	v2.01 or later
QLogic 8Gb FC Dual Port PCIe HBA Driver	SLES10 SP2 or SLES10 SP3 distribution driver or later
IBM XIV Storage System Code Level	v10.2.1b or later
SLES10 SP2 Device Mapper Multipath driver	SLES10 SP2 or SLES10 SP3 distribution version

For the latest support levels of hardware and firmware and to download the appropriate drivers and firmware, please review the following links

IBM XIV Storage System

http://www-947.ibm.com/support/entry/portal/Troubleshooting/Hardware/System_Storage/Disk_systems/Enterprise_Storage_Servers/XIV_Storage_System_%282810,_2812%29/