

PRIMERGY CX400 S1 / CX2y0 S1

System configurator and order-information guide

January 2014

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Change report

PRIMERGY Server

Instructions

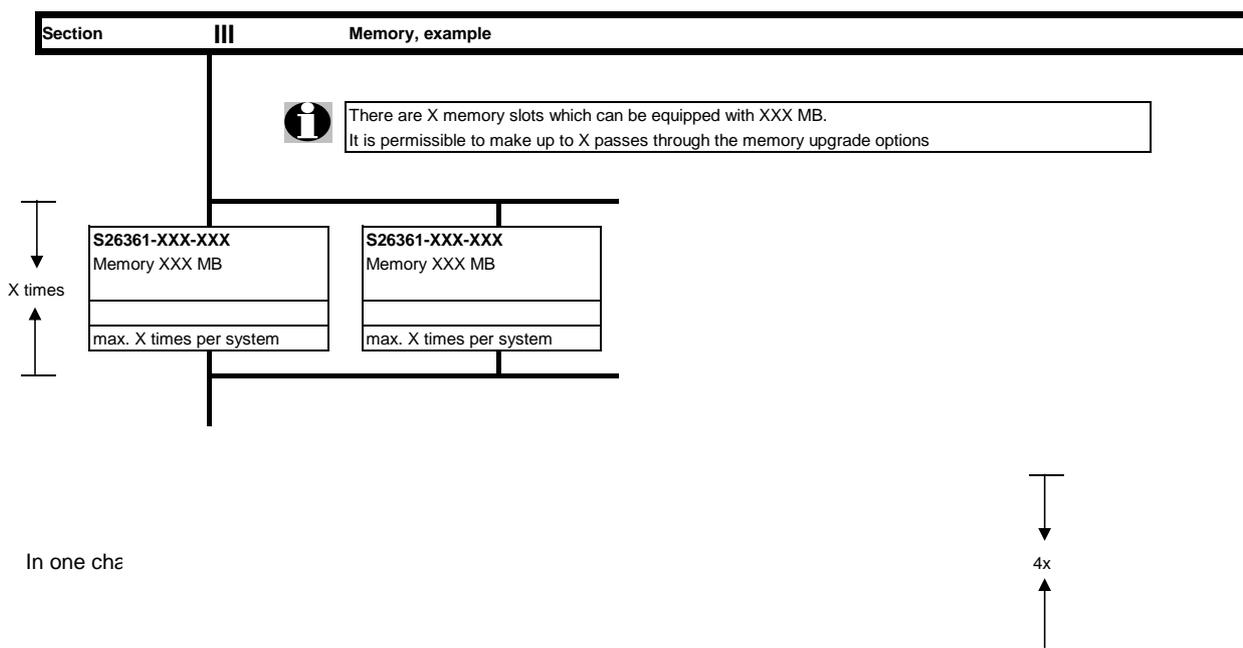
This document contains basic product and configuration information that will enable you to configure your system via PC-/System-Architect.

Only these tools will ensure a fast and proper configuration of your PRIMERGY server or your complete PRIMERGY Rack system.

You can configure your individual PRIMERGY server in order to adjust your specific requirements.

The System configurator is divided into several chapters that are identical to the current price list and PC-/SystemArchitect.

Please follow the lines. If there is a junction, you can choose which way or component you would like to take. Go through the configurator by following the lines from the top to the bottom.



Please note that there are information symbols which indicate necessary information.



For further information see:

http://ts.fujitsu.com/products/standard_servers/inc (internet)

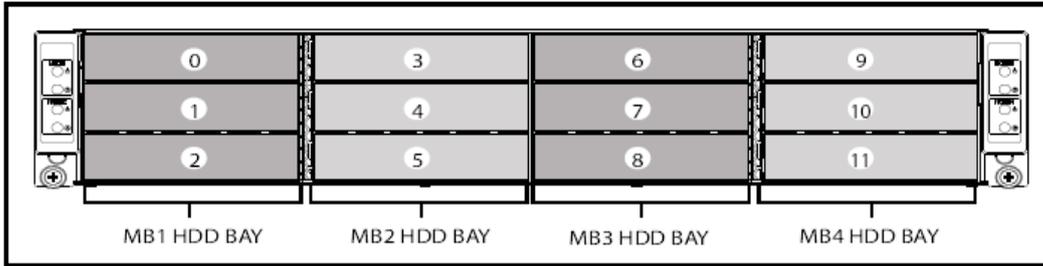
https://partners.ts.fujitsu.com/com/order-supply/configurators/primergy_config/current/Pages/default.aspx (extranet)

Configuration diagram PRIMERGY CX400 S1

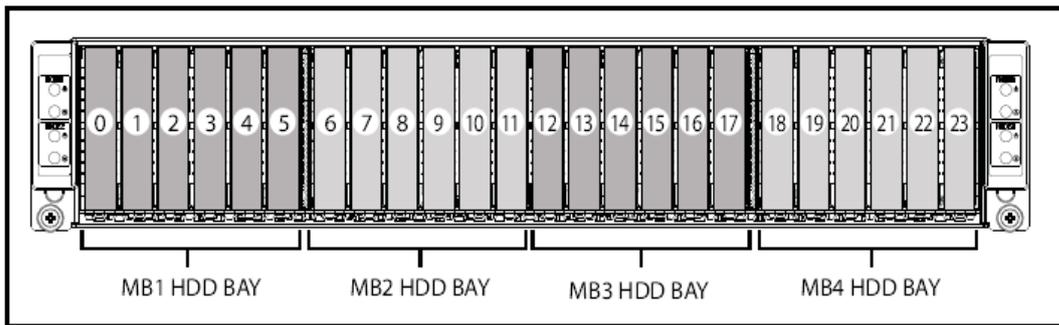
System unit (1)

with up to 12x 3.5" or up to 24x 2.5" Hard disk drives (or SSD)

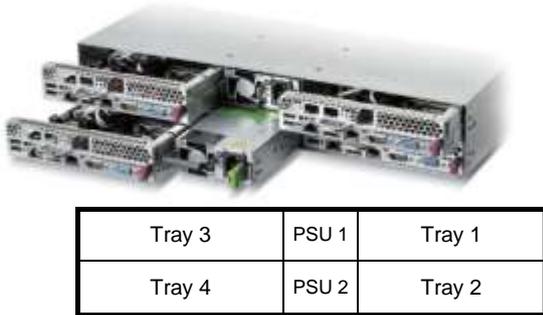
CX400 S1 3,5" HDD cage standard (S26361-K1438-V135 / V335)



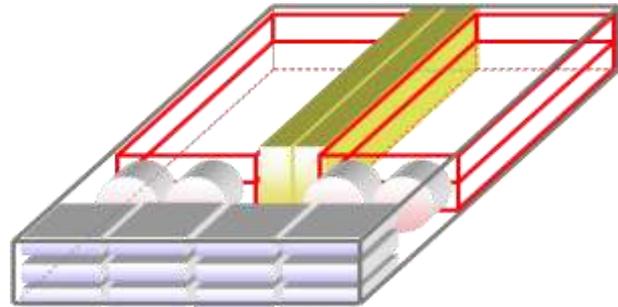
CX400 S1 2,5" HDD cage standard (S26361-K1438-V125 / V325)



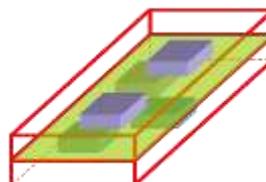
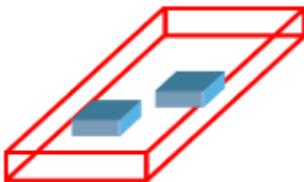
Note: each CX400 has to be populated with 4x CX250 S1 or 2x CX270 S1
 Each nodes are hot pluggable

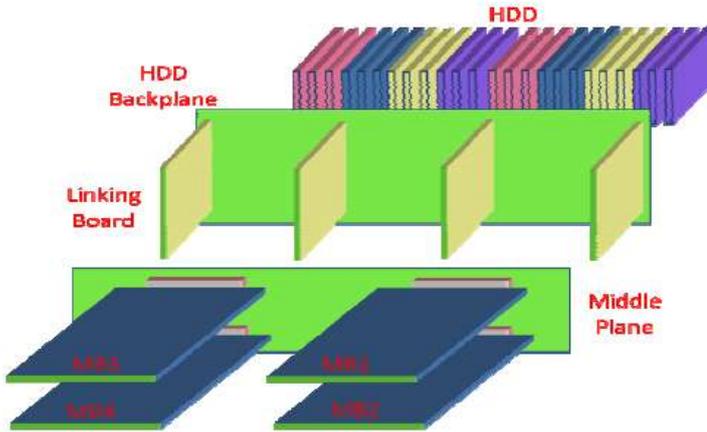


CX250 S1 / CX210 S1 half wide one U server node



CX270 S1 half wide two U server node



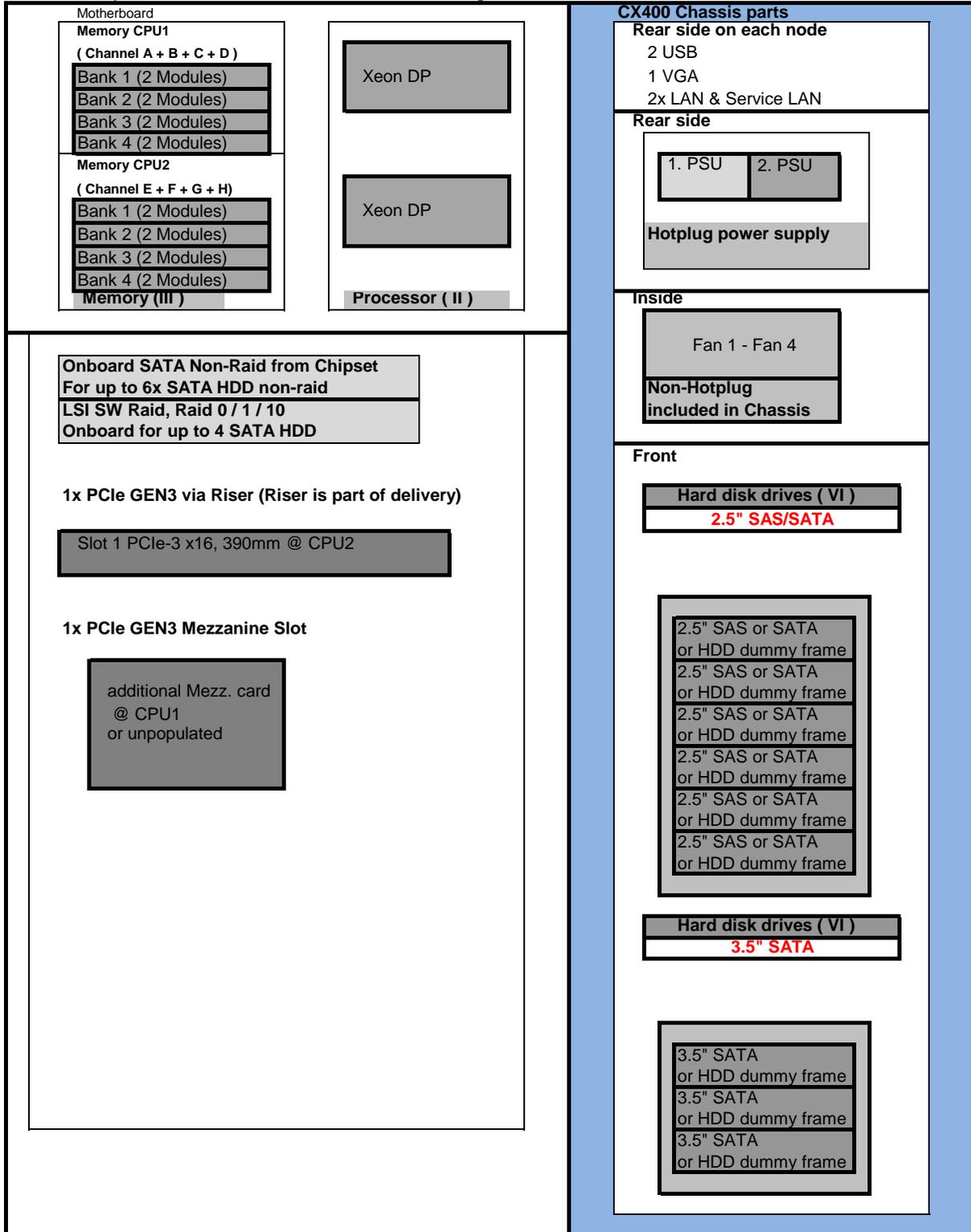


Note! Position of CX nodes (MB 1 to 4) are fixed and needs to be configured in same placements.

Configuration diagram PRIMERGY CX250 S1

System unit (I)

with up to 6 x 2.5" HDDs on CX400 S1 2,5" HDD cage standard
 with up to 3 x 3.5" HDDs on CX400 S1 3,5" HDD cage standard



Key:



Included in basic unit



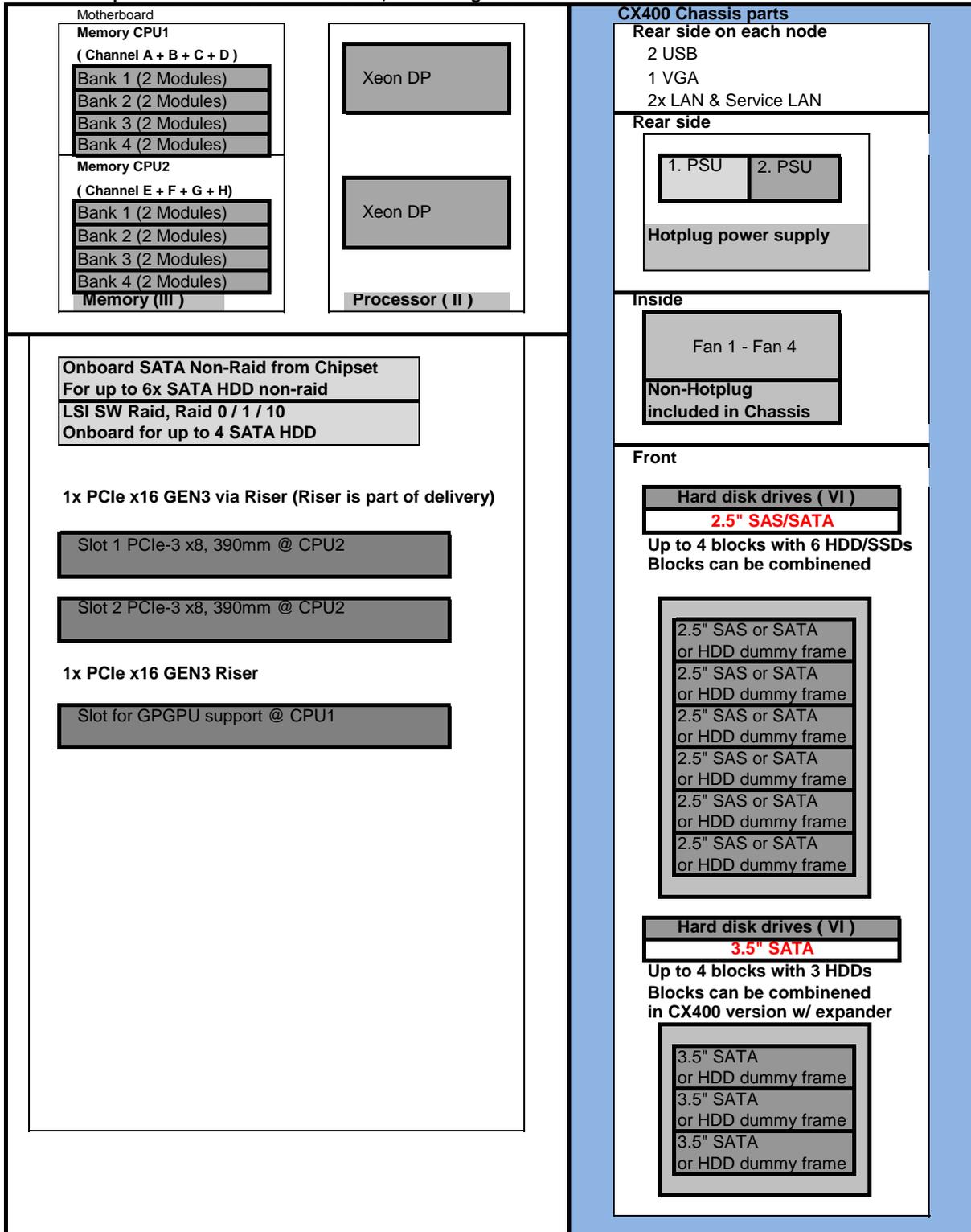
Option

The population order for the CPU is: CPU1 first, then CPU2

Configuration diagram PRIMERGY CX270 S1

System unit (I)

with up to 6x 2.5" HDDs on CX400 S1 2,5" HDD cage standard
 with up to 6x 3.5" HDDs on CX400 S1 3,5" HDD cage standard



Key:



Included in basic unit



Option

The population order for the CPU is: CPU1 first, then CPU2

Start PRIMERGY CX250 S1 / CX270 S1

Section 0 SW Configurator 64 bit (EM64T / IA64)

with OEM-Software
for PRIMERGY Server

without OEM-Software
for PRIMERGY Server

 For all SW products please refer to the corresponding software configurator accessible via the Extranet under "Configuration & Tools, -All configurations, -Software, URL see below.

OEM- SW is bound to HW and is not allowed to be ordered separately.
 Exceptions: VMware SW, Citrix XenServer

VMware-Software
 - Virtual Infrastructure for PRIMERGY > except all mono PRIMERGY systems

as soon as available
Citrix XenServer / Essentials for XenServer
 - XenCenter Management Server for any server released for Windows 2000/XP/Vista and Server 2003/2008
 - XenServer and Essentials for XenServer released for RX200S5, RX300S4/S5, RX600S4, BX620S4/S5, BX920S1

Microsoft Hyper-V Server and System Center
 - Microsoft Hyper-V Server 2008 R2

Microsoft - Windows Server 2008 R2 Server Licenses
 - Windows HPC Server 2008 R2 Suite
 - Windows Server 2008 R2 Datacenter
 - Windows Server 2008 R2 Enterprise
 - Windows Server 2008 R2 Standard
 - Windows Web Server 2008 R2

only EM64T	Linux - Software *) **)
	# Open Enterprise Server ***) - SuSE Linux ES (OEM): LO - Red Hat EL (OEM): LO

 **) Pay attention to release and order information in PRINCE -> Operating System
<https://partners.ts.fujitsu.com/com/products/servers/primergy/Pages/default.aspx>

 ***) Supply over distribution or procurement from FSC VP BC Software

You'll find single software configurators and release lists (OS-matrix / system management / security) under following addresses:

Continue with PRIMERGY
HW configurator

for internal users: <http://sp.ts.fujitsu.com/dmsp/docs/osrel.xlsx>
 for partners: <https://partners.ts.fujitsu.com/com/products/servers/primergy/Pages/default.aspx>

Start PRIMERGY CX400 S1

Section | **Basic unit**



System unit consisting of:

* **2U Housing with power supply modules, Rack Rails and HDD cages**

* **Basic units with:**

- 1 Hot-Plug Power Supply rated 1400 or 1100Watt each
- 4 non-hot plug Fans (limited redundancy)

* **SAS Backplane for 12x 3.5" HD or SAS Backplanes for 24x 2.5" HD**

* **Drives/Bays**

- 12 bays 1" for hot plug 3.5" HD (1" high) or 24 bays for hot plug 2.5" HD
- HDD or SSD supported
- HDD configuration per Server node
- empty bays will be covered with dummy frames

* **Server nodes**

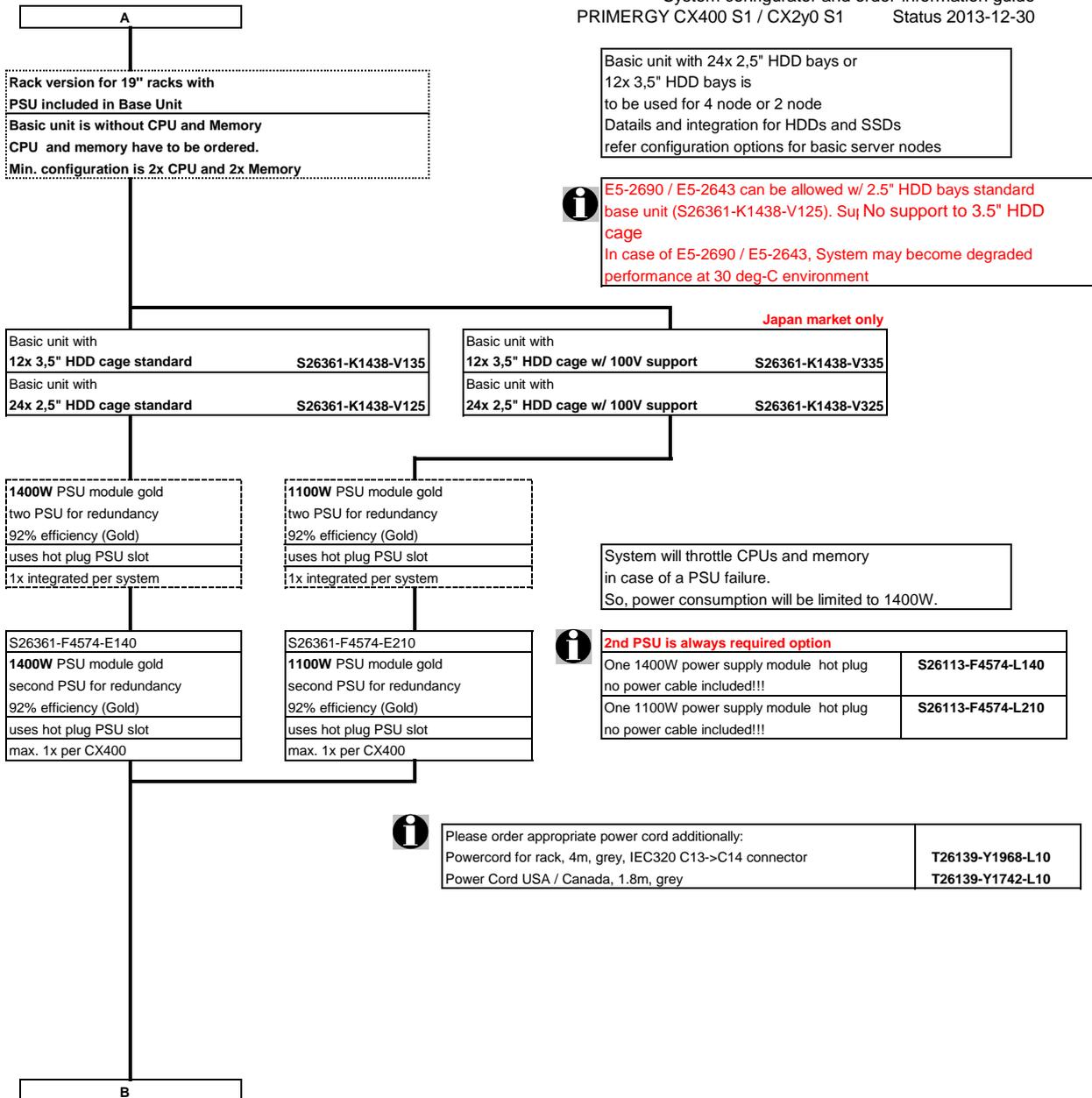
- each CX400 S1 has to be configured either up to 4x CX250 S1 / CX210 S1 w/o GPGPU support or up to 2x CX270 S1 w/ GPGPU support
- all other node configurations requires special release process but may be possible
- position of CX server nodes fixed

Software:

* **ServerView Suite Software**

* **Documentation engl. (multilingual on CD)**

A



B
PRIMECENTER Rack

Sliding rail
 1-hand-mounting
 RMK - 1 pair consisting of
 - carrier length variable
 toolless mounting possible
 included in base unit



S26361-F4530-L12
 Adapter angle PC/DC-Rack, till 50Kg
 necessary for mounting RMKs in
 asymmetrical racks

S26361-F4530-E12
**Mounting 2U server in
 asymmetrical racks**
 with 2U support bracket

S26361-F4530-E10
**Mounting in
 symmetrical & 3rd party racks**
 (no support bracket needed)

SNP:SY-F1647E301-P
 Installation ex works for one
 server or subsystem.
**Hereby the rack will be delivered
 completely pre-mounted and
 all wired connections are tested.**
 With PCR S2 12U, 24U, 38U and
 PRC M1 16U, 24U, 42U:
 Systems and components
 will be delivered installed in the rack
 With PCR S2 racks 46U:
 Systems and components
 will be delivered separately
 To be ordered only together with
 a PRIMECENTER rack
 PCR S2 e.g. S26361-K826-V10x
 new PCR M1 e.g. S26361-K827-Vxxx
refer PCR S2 or M1 rack configurator
 max. 1x per System



"Rack-mounting ex factory"
 This service is to be ordered once
 per installable server/storage
 subsystem, in order to get the
 server/storage subsystem
 mounted into the racks.
In case of the 46 U PCR S2
 this service has to be ordered,
 to get the mounting kits and the
 cables installed.



PRIMERGY Classic 19" rack is not supported

S26361-F1452-E100
 REGION KIT EMEA AP
 For Shipments to EMEA / Asia and
 Pacific regions
 1x per system

S26361-F1452-E110
 REGION KIT JP
 For Shipments to Japan regions
 1x per system



Power cord has to be ordered separately

Power cord options (1x per PSU)

2x

T26139-Y1968-E100	Powercord for rack, 4m, grey, IEC 320 C14 connector
T26139-Y1742-E10	USA, Canada, 1.8m, grey
T26139-Y3850-E10	Option "no powercord", for Countries without specific cable orderable like e.g. China

C

Section II Basic unit

**CX250 S1 System unit consisting of:**

- * 1U half wide server node (tray & motherboard) for pluggin into CX400 chassis
- * Basic units with:
 - Server tray mechanics
 - Motherboard
 - 1x Riser PCIe- x16 GEN3 for LP cards
 - 1x Mezzanine cards slot
 - 1x UFM placement possible

CX270 S1 System unit consisting of:

- * 2U half wide server node (tray & motherboard) for pluggin into CX400 chassis
- * Basic units with:
 - Server tray mechanics
 - Motherboard
 - 1x Riser PCIe- x16 GEN3 with 2x PCIe- x8 slots for LP cards
 - 1x Riser PCIe- x16 GEN3 for GPGPU support at rear of server node
 - 1x UFM placement possible

Systemboard D3196 (same for both sercer nodes CX250 S1 and CX270 S1) with:

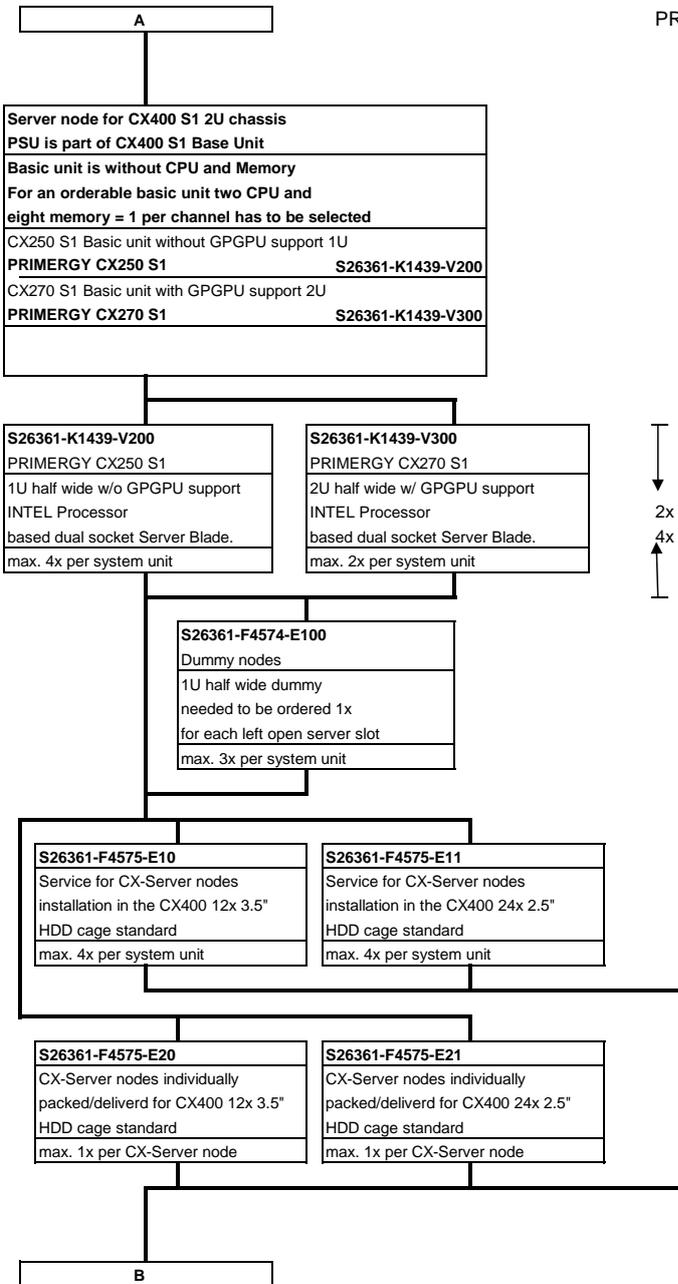
- * Up to two Xeon 4C, 6C & 8C CPU's (Socket-R)
with 2 serial QPI links (Quick Path Interconnect) and four memory channels per CPU
CPU has to be selected for an orderable basic unit,
- * Chipset Intel® C600 Series
- * number of PCI slots: see above
- * 16 memory slots for max. 512GB RAM DDR3 available
 - Memory is divided into 8 DIMMs per CPU (4 channels with 2 slots per channel)
 - Possible max. configurations are:
 - 16x 32GB LRDIMM (quad rank modules) = 512GB
 - 16x 16GB RDIMM (dual rank modules) = 256GB
 - 16x 4GB UDIMM (dual rank modules) = 64GB
 - First Memory (one module) has to be selected for an orderable basic unit per CPU
 - Memory upgrade is possible by 8x memory units
 - SDDC (Chipkill) is supported for memory modules,
- * Dual Port 10/100/1000 x4 PCI Express* Gigabit Ethernet Intel LAN controller Powerville on-board
- * AST2300 (integrated Baseborad Management Controller) on-board server management controller with dedicated 10/100 Service LAN-port and integrated graphics controller.
The Service LAN-port can be switched alternatively on standard Gbit LAN port
- * Graphics Controller integrated in AST2300 (Integrated Baseboard Management Controller):
1600x1200x16bpp 60Hz, 1280x1024x16bpp 60Hz, 1024x768x32bpp 75Hz, 800x600x32bpp 85Hz,
640x480x32bpp 85Hz

Interfaces at the rear:

- * 1x RS-232-C (serial, 9 pins)
- * 1x VGA (15 pins)
- * 2x USB 2.0 (UHCI) with 480MBit/s, no USB wakeup
- * 2x LAN RJ45, 1x Service-LAN RJ45

Interfaces internal:

- * 1x USB 2.0 for UFM modul (embeded ESXi)
- * 6x SATA interface via Patsburg -A for 6 SATA HD's Non-Raid or 4 SATA HD's Raid 0/1/10 (LSI SW Raid)



i For non fully occupied configuration (e.g. 1x CX250 S1), it is released as special release only.
 And no mixed configuration supported for CX250 S1 and CX270 S1 in CX400 S1

CX400 S1 with 4x CX250 S1



CX400 S1 with 2x CX270 S1



2x for CX270 S1
 4x for CX250 S1

C

Section Processor

There are 2 processor sockets available.
 The CPU socket is always equipped which can be selected via configurator

Two processors with different clock frequencies are not possible
 A multi-processor operating system is required for a dual-processor system.

With this order number you will receive two CPUs!	
The CX2x0 is always delivered with two CPUs installed. Please choose the CPU type (applies to both CPUs)	
Basic 4C CPU's	
- 1x 64-bit Intel Xeon (10MB Smart Cache) 1066 MHz DDR3 Bus; 6,40 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
2x Xeon E5-2603 4C/4T 1.80GHz 10MB 6.40GT/s 1066MHz 80W	S26361-F3731-E180
2x Xeon E5-2609 4C/4T 2.40GHz 10MB 6.40GT/s 1066MHz 80W	S26361-F3731-E240
Standard Turbo 6C CPU's	
- 1x 64-bit Intel Xeon (15MB Smart Cache); Hyper-Threading (HT); 1333 MHz DDR3 Bus; 7,20 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
2x Xeon E5-2620 6C/12T 2.00GHz 15MB 7.20GT/s 1333MHz 95W	S26361-F3732-E200
2x Xeon E5-2630 6C/12T 2.30GHz 15MB 7.20GT/s 1333MHz 95W	S26361-F3732-E230
2x Xeon E5-2640 6C/12T 2.50GHz 15MB 7.20GT/s 1333MHz 95W	S26361-F3732-E250
Advanced Turbo+ 8C CPU's	
- 1x 64-bit Intel Xeon (20MB Smart Cache); Hyper-Threading (HT); 1600 MHz DDR3 Bus; 8,00 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
2x Xeon E5-2650 8C/16T 2.00GHz 20MB 8.00GT/s 1600MHz 95W	S26361-F3733-E200
2x Xeon E5-2660 8C/16T 2.20GHz 20MB 8.00GT/s 1600MHz 95W	S26361-F3733-E220
2x Xeon E5-2665 8C/16T 2.40GHz 20MB 8.00GT/s 1600MHz 115W	S26361-F3733-E240
2x Xeon E5-2670 8C/16T 2.60GHz 20MB 8.00GT/s 1600MHz 115W	S26361-F3733-E260
2x Xeon E5-2680 8C/16T 2.70GHz 20MB 8.00GT/s 1600MHz 130W	S26361-F3733-E270
2x Xeon E5-2690 8C/16T 2.90GHz 20MB 8.00GT/s 1600MHz 135W	S26361-F3733-E290
Frequency Optimized Turbo 2C, 4C & 6C CPU's	
- 1x 64-bit Intel Xeon (5/10/15MB Smart Cache); Hyper-Threading (HT); 1600 MHz DDR3 Bus; 6,40/7,20 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
2x Xeon E5-2637 2C/4T 3.00GHz 5MB 6.40GT/s 1600MHz 80W	S26361-F3734-E300
2x Xeon E5-2643 4C/8T 3.3GHz 10MB 6.40GT/s 1600MHz 130W	S26361-F3734-E330
2x Xeon E5-2667 6C/12T 2.90GHz 15MB 7.20GT/s 1600MHz 130W	S26361-F3734-E290
Low Power 4C/6C/8C CPU's	
- 1x 64-bit Intel Xeon (15/20MB Smart Cache); Hyper-Threading (HT); 1333/1600 MHz DDR3 Bus; 7,20/8,00 GT/s QPI Bus and passive heat sink occupies socket for one CPU	
2x Xeon E5-2630L 6C/12T 2.00GHz 15MB 7.20GT/s 1333MHz 60W	S26361-F3735-E200
2x Xeon E5-2650L 8C/16T 1.80GHz 20MB 8.00GT/s 1600MHz 70W	S26361-F3735-E180

Note: Max. DDR3 Bus Speed depends on:

- max. DDR3 Bus Speed from the CPU and
- max. DDR3 Memory Speed and
- max. memory modules on one memory channel

On special release only

D

Section IV Graphics / GPGPU

Graphics Controller integrated in BMC Aspeed 2300 (integrated Remote Management Controller):
 1600x1200x16bpp 60Hz, 1280x1024x16bpp 60Hz, 1024x768x32bpp 75Hz, 800x600x32bpp 85Hz, 640x480x32bpp 85Hz
 (1280x1024x24bpp 60Hz only possible if local monitor or remote video redirection is off)



Only for CX270 S1 a GPGPU (General Purpose Graphical Processor Unit) can be ordered as option.
 The Riser is part of delivery but the desired card has to be ordered additionally

as long	as stock last
S26361-F4575-E275	
PY NVIDIA Tesla M2075 Computing-Processor	
NVIDIA Tesla M2075	
6 GB Memory	
PCIe Gen2-x16	
448 cores	
for GPGPU purpose only	
power cables from PSU are cabled	
when ordering GPGPU ex factory	
Riser card for GPGPU is part of delivery	
full height bracket	
max. 1x per system	

as long	as stock last
S26361-F4575-E290	
PY NVIDIA Tesla M2090 Computing-Processor	
NVIDIA Tesla M2090	
6 GB Memory	
PCIe Gen2-x16	
512 cores	
for GPGPU purpose only	
power cables from PSU are cabled	
when ordering GPGPU ex factory	
Riser card for GPGPU is part of delivery	
full height bracket	
max. 1x per system	



S26361-F4575-L275
S26361-F4575-L290
for loose delivery
Riser is part of basic unit CX270

G

F

Section V Memory



- There are 8 memory slots per CPU for max.
 256GB LRDIMM (8x 32GB quad rank)
 128GB RDIMM (8x 16GB dual rank)
 32GB UDIMM (8x 4GB)
=> max. 512GB for two CPU's (256GB per CPU), using LRDIMM

- The memory area is divided into 4 channels per CPU with 2 slots per channel
 - Slot 1 of each channel belongs to memory bank 1, the slot 2 belongs to memory bank 2

**Registered, LR DIMMs and unbuffered memory modules can be selected
 No mix of registered, load reduced and unbuffered modules allowed.**

Memory can be operated at 1.5V or 1.35V, even if the modules are of low voltage type.
 In a 2 DIMMs per channel configuration, following frequencies are supported:
 - 1.5V - 1600MHz max (depending on CPU, special memory modules)
 - 1.35V - 1333MHz max (depending on CPU)
SDDC (Chipkill) is supported for registered / load reduced memory modules only (not unbuffered)

"Independent Channel Mode" is following configuration possible
 - Each slot can optionally be equipped with any registered or load reduced or unbuffered DDR3 modules:
 No mix of registered, load reduced and unbuffered modules allowed.

"Performance Mode" configuration
 - In this configuration, the memory module population ex factory is spread across all channels.
 The BIOS is set to the max. performance for memory.
Minimum configuration is: 4x identical modules per CPU

S26361-F3694-E2 Performance Mode Installation
 Number of memory modules is always 4 / CPU, so all channels are populated and the max. memory performance can be achieved.
 Four identical memory modules will be equipped in one memory bank to achieve highest memory performance. All four modules are active and full capacity can be used.
Multiple of 4 identical modules to be configured per CPU

S26361-F3694-E10 Independent Mode
 Independent Channel Mode allows all channels to be populated in any order. No specific Memory RAS features are defined
Requires min 1 memory Module per CPU

1x per CPU

For a description of memory configurations refer to section "Memory Configurations"

8 per CPU, max. 2 modules per channel	Unbuffered Memory (UDIMM) no SDDC (chipkill) support - one DDR3 unbuffered ECC mem. Module, 1.35V Choose 4 or 8 order codes per CPU
	2GB (1x2GB) 1Rx8 L DDR3-1600 U ECC S26361-F3694-E613
	4GB (1x4GB) 2Rx8 L DDR3-1600 U ECC S26361-F3694-E614
	Registered Memory (RDIMM) no SDDC (chipkill) support - one DDR3 registered ECC mem. Module, 1.35V No mix with any other types of memory modules possible 1600MHz supported with up to 2DPC (8 modules/CPU) at 1.5V Choose 4 or 8 order codes per CPU
	4GB (1x4GB) 2Rx8 L DDR3-1600 R ECC S26361-F3695-E614
	Registered Memory (RDIMM) with SDDC (chipkill) support - one DDR3 registered ECC mem. Module, 1.35V 1600MHz supported with up to 2DPC (8 modules/CPU) at 1.5V Choose 4 or 8 order codes per CPU
	4GB (1x4GB) 1Rx4 L DDR3-1600 R ECC S26361-F3697-E614
	8GB (1x8GB) 2Rx4 L DDR3-1600 R ECC S26361-F3697-E615
	16GB (1x16GB) 2Rx4 L DDR3-1600 R ECC S26361-F3697-E616
	Load Reduced Memory (LRDIMM) with SDDC (chipkill) support - one DDR3 load reduced ECC mem. Module, 1.35V Choose 4 or 8 order codes per CPU
	16GB (1x16GB) 4Rx4 L DDR3-1333 LR ECC S26361-F3698-E616
	32GB (1x32GB) 4Rx4 L DDR3-1333 LR ECC S26361-F3698-E617

Max. DDR3 memory speed depends on the memory configuration. (No of mem modules per channel) as well as on the CPU type.
 The memory channel with the lowest speed defines the speed of all CPU channels in the system, also for the channels of the second CPU if configured.
 For real memory speed (depending on memory type / population), please check the spreadsheet "Memory speed" below



Mix of memory modules is only possible within the same group

G

Memory Configuration PRIMERGY CX2y0 S1

Each CPU offers 8 Slots for DDR3 Memory Modules organised in 2 Banks and 4 Channels.

Depending on the amount of memory configured you can decide between 4 basic modes of operation (see explanation below).

There are 3 different kinds of DDR3 Memory Modules available: UDIMM / RDIMM and LRDIMM

UDIMM / RDIMM / LRDIMM offer different functionality. Mix of UDIMM / RDIMM / LRDIMM is not allowed.

If 1.5V and 1.35V DIMMs are mixed, the DIMMs will run at 1.5V

Mode	Configuration	UDIMM	RDIMM	RDIMM		Application
				LRDIMM		
		x8	x8	x4		
SDDC (chipkill) support	any	no	no	yes		detect multi-bit errors
Performance Mode	4 identical Modules / Bank	yes	yes	yes		offers maximum performance and capacity

*) For the delivery ex works the system will be prepared with dedicated BIOS setting.

Capacity	Configuration	UDIMM	RDIMM	LRDIMM	Notes
Min. Memory per CPU	4 Module / CPU	4x2GB	4x4GB	4x 16GB	with one CPU
Max. Memory per CPU	8 Modules / CPU	8x4GB	8x16GB	8x 32GB	with one CPU
Max. Memory per System	16 Modules / System	64GB	256GB	512GB	if second CPU is configured

Memory-Speed:

Max. DDR3 memory speed depends on the memory configuration on one memory channel and the speed of the CPU

The memory channel with the lowest speed defines the speed of all CPU channels in the system

Mem. Speed provided by CPU	Real maximum memory-bus speed depending on CPU type, memory configuration (DPC) and voltage of installed memory module																	
	UDIMM 1600MHz						RDIMM 1600MHz						LRDIMM 1333MHz					
	1.5V [default]			1.35V			1.5V [default]			1.35V			1.5V [default]			1.35V		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Voltage setting (BIOS)	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC	DPC
CPU with 1600MHz DDR3 Bus	1333	1333	-	1066	1066	-	1600	1600	-	1333	1333	-	1333	1333	-	1066	1066	-
CPU with 1333MHz DDR3 Bus	1333	1333	-	1066	1066	-	1333	1333	-	1333	1333	-	1333	1333	-	1066	1066	-
CPU with 1066MHz DDR3 Bus	1066	1066	-	1066	1066	-	1066	1066	-	1066	1066	-	1066	1066	-	1066	1066	-

1R - Single Rank

2R - Dual Rank

4R - Quad Rank

1DPC = 1 DIMM per Channel

2DPC = 2 DIMM per Channel

3DPC = 3 DIMM per Channel

Configuration hints:

- The memory sockets on the systemboard offer a color coding:

Bank I black sockets

Bank II blue sockets

- A so called Bank consists of 1 memory module on every Channel available on one CPU (examples see below)

Bank I on CPU 1/2 up to 4 memory modules connected to Channel A - H on the 1st/2nd CPU

Bank II on CPU 1/2 up to 4 memory modules connected to Channel A - E on the 1st/2nd CPU

(can not be populated by UDIMM or 4R RDIMM memory modules)

- See below and next page for a detailed descriptions of the memory configuration supported.

G

Section VI Drive bay for basic unit

CX400 S1 3,5" HDD cage standard (S26361-K1438-V135)
 for up to 3x HDD per CX250 S1 or up to 6x HDD for CX270 S1

CX400 S1 2,5" HDD cage standard (S26361-K1438-V125)
 for up to 6x HDD per CX250 S1 or up to 6x HDD for CX270 S1

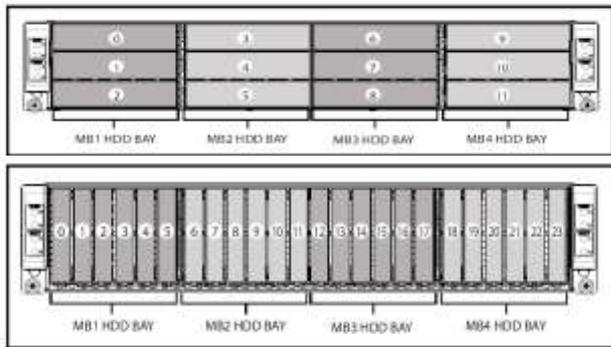
Note: Onboard SATA Ctrl can be used for up to 6x Non-Raid SATA drives
 For Raid level 0 / 1 / 10 the LSI SW Raid for **up to 4x HDD drives** can be used
 For SAS Drives or Raid level 5 or for Raid with more than 4x SATA HDD an optional
 Raid card (either Mezzanine or LP Ctr.) has to be used.
 For CX250 S1 a SAS Raid mezzanine card is needed
 For CX270 S1 a LP card has to be configured.

Max. HDD number per node

		CX400 S1 3.5" HDD cage	CX400 S1 2.5" HDD cage
		Standard	Standard
CX250 S1	Onb. SATA Ctrl	3	6
	Opt. RAID card	3	6
CX270 S1	Onb. SATA Ctrl	-	6
	Opt. RAID card	6	6

Max. HDD number per node in case of E5-2690 / E5-2643 CPU

		CX400 S1 3.5" HDD cage	CX400 S1 2.5" HDD cage
		Standard	Standard
CX250 S1	Onb. SATA Ctrl	-	2
	Opt. RAID card	-	4
CX270 S1	Onb. SATA Ctrl	-	2
	Opt. RAID card	-	4



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Section VII Hard disks drives

i For Non-Raid up to 6x HDD can be connected to Onboard SATA Ctrl
 For MegaSR Raid 0/1 up to 4x SATA HDD can be connected to onboard chipset
Onboard SATA Ctrl is not supporting Vmware ESXi
 For SAS HDD or Raid level 5 or more than 4x SATA HDD in a Raid configuration
 a SAS Raid option needs to be ordered additionally, please refer controller section
Mixed configurations with SATA drives and SAS drives are not allowed per node

i All not needed HDD slots needs to be filled with an dummy HDD frame

i **Note: Possible HDD configuration for better cooling in case of E5-2643 / E5-2690 installed.**
 Only CX400 S1 2.5" HDD cage standard (S26361-K1438-V125) is supported
 For onboard SATA Ctrl
 Up to 2x HDD drives per node can be allowed
 4x HDD drives per node with non-RAID configuration is special release
 For SAS RAID option,
 Up to 4x HDD drives per node can be allowed
 For shipment to JP region,
 up to 2x HDD drives is allowed, additional 2x HDD drives is allowed by loose delivery

One UFM (USB Flash Module) can be cofigured
 The UFM is bundeld with Vmware offering

3.5" 6Gb/s 7.2k BC SATA CX400 S1 chassis

S26361-F3711-E500 HD 500GB 7.2krpm 3.5" 7200rpm,<9.0 ms, 8MB Cache SATA 6Gb/s hot plug/hot replace tray max. 3x / 6x per CX2y0 system	S26361-F3711-E100 HD 1000GB 7.2krpm 3.5" 7200rpm,<9.0 ms, 8MB Cache SATA 6Gb/s hot plug/hot replace tray max. 3x / 6x per CX2y0 system	S26361-F3711-E200 HD 2000GB 7.2krpm 3.5" 7200rpm,<9.0 ms, 8MB Cache SATA 6Gb/s hot plug/hot replace tray max. 3x / 6x per CX2y0 system
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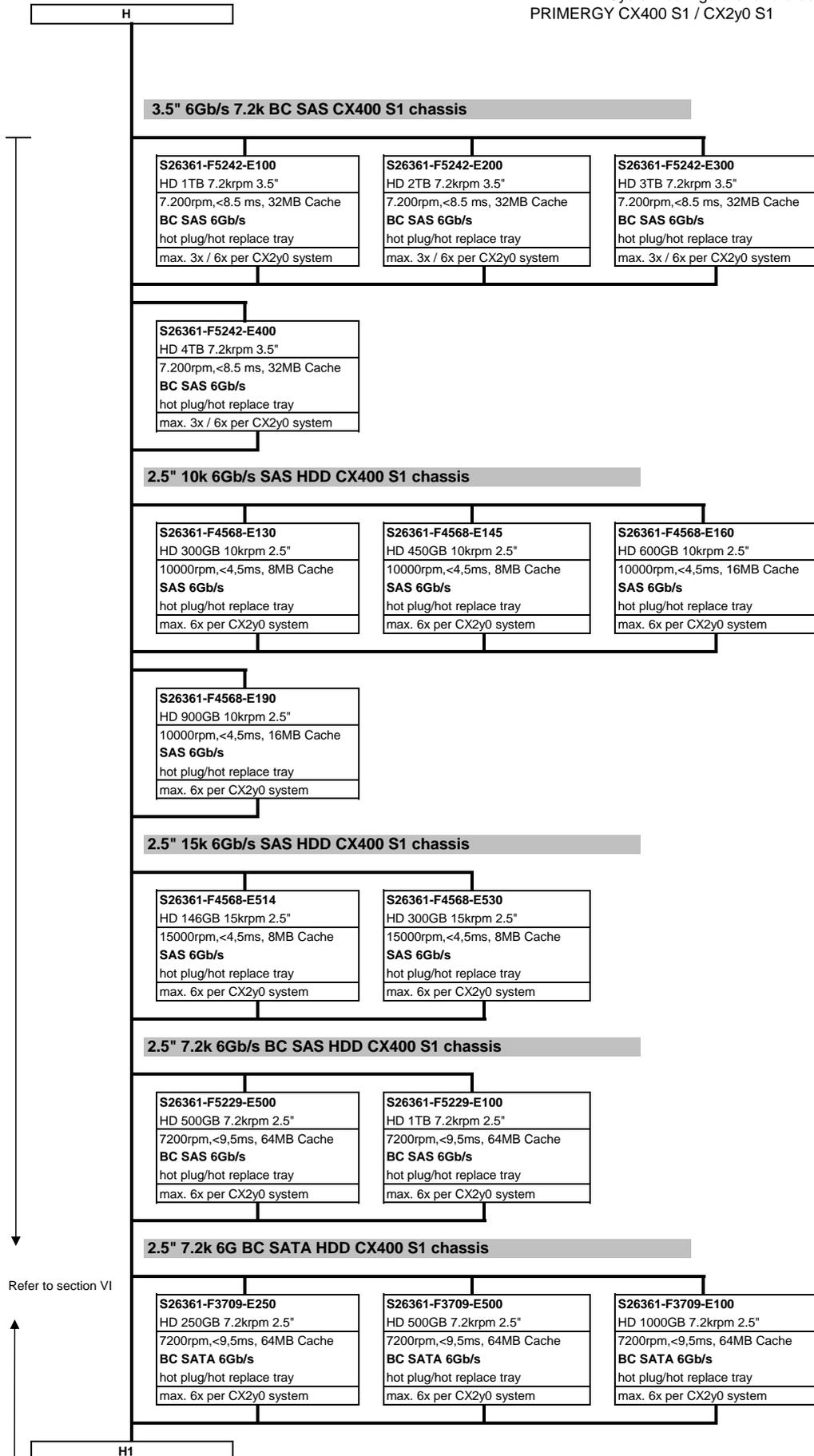
Refer to section VI

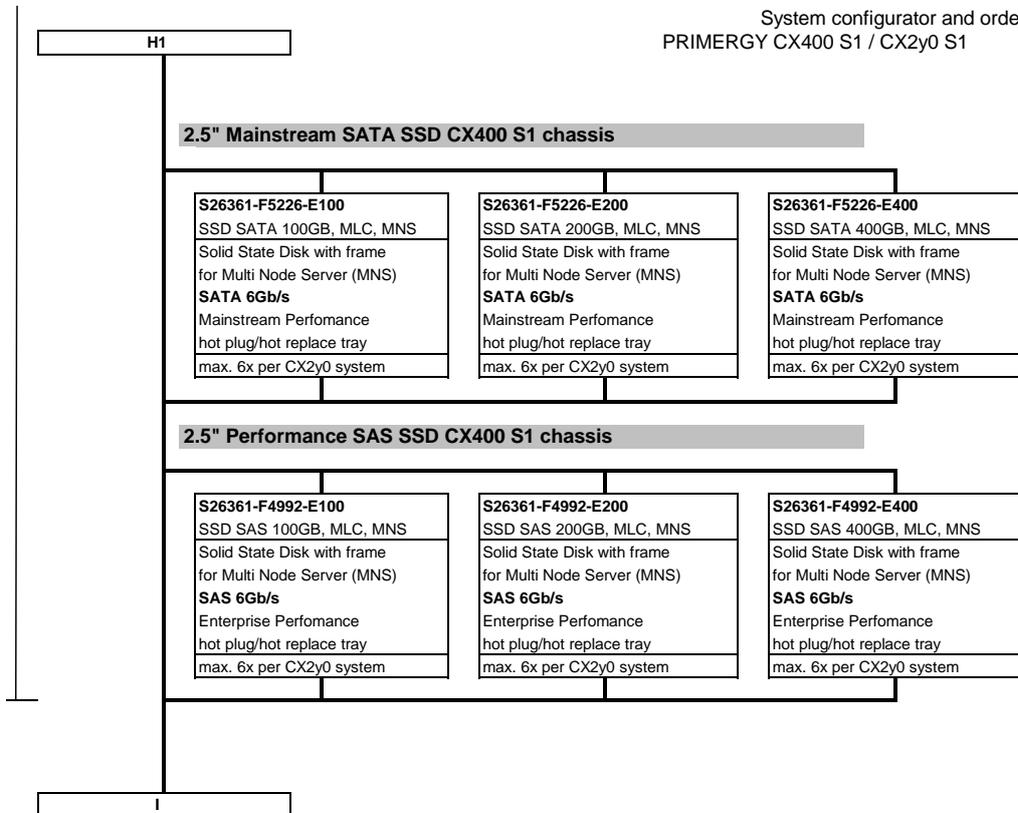
S26361-F3711-E300 HD 3000GB 7.2krpm 3.5" 7200rpm,<9.0 ms, 8MB Cache SATA 6Gb/s hot plug/hot replace tray max. 3x / 6x per CX2y0 system

3.5" 15k SAS CX400 S1 chassis

S26361-F5265-E545 HD 450GB 15krpm 3.5" 15.000rpm,<4ms, 16MB Cache SAS 6Gb/s hot plug/hot replace tray max. 3x per CX250 system special release
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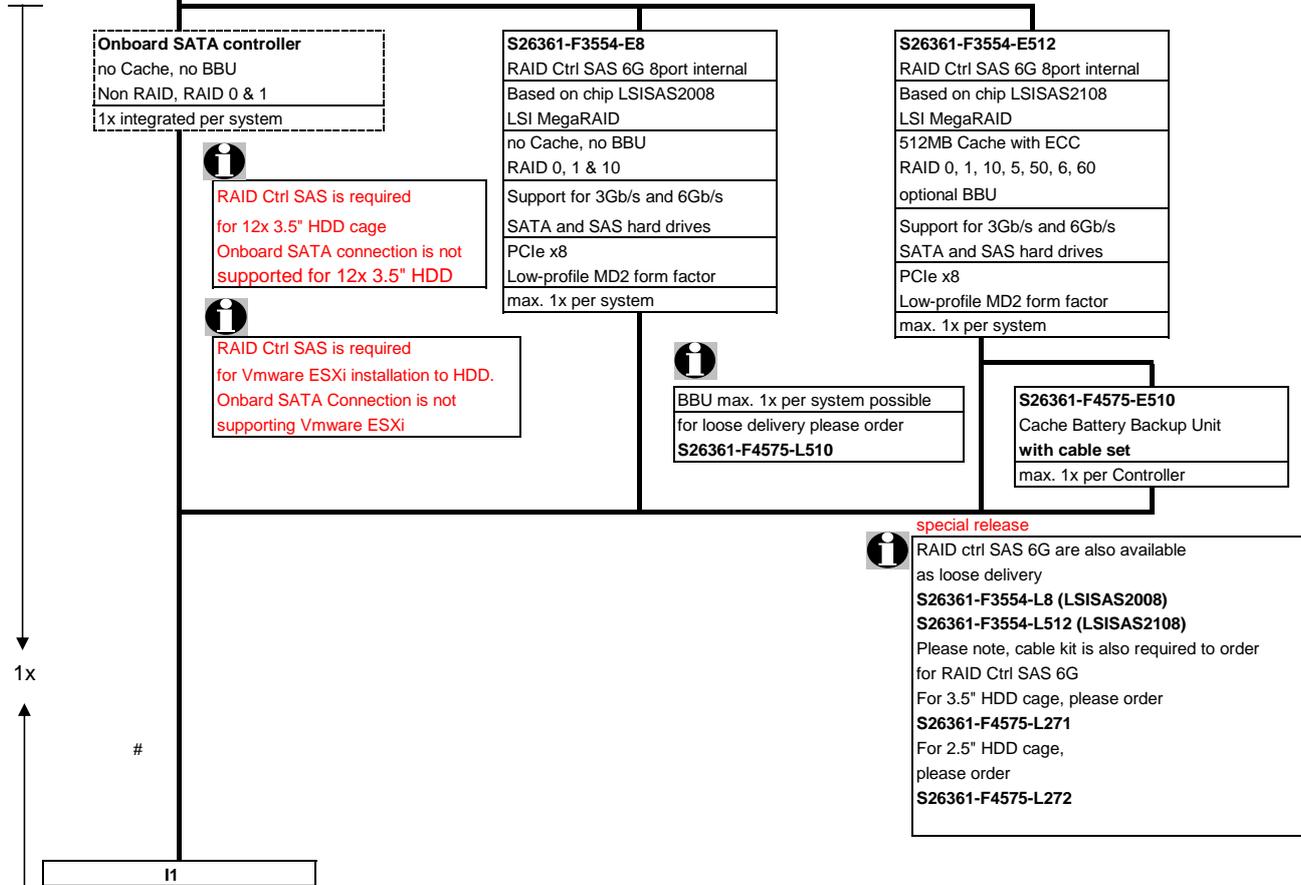


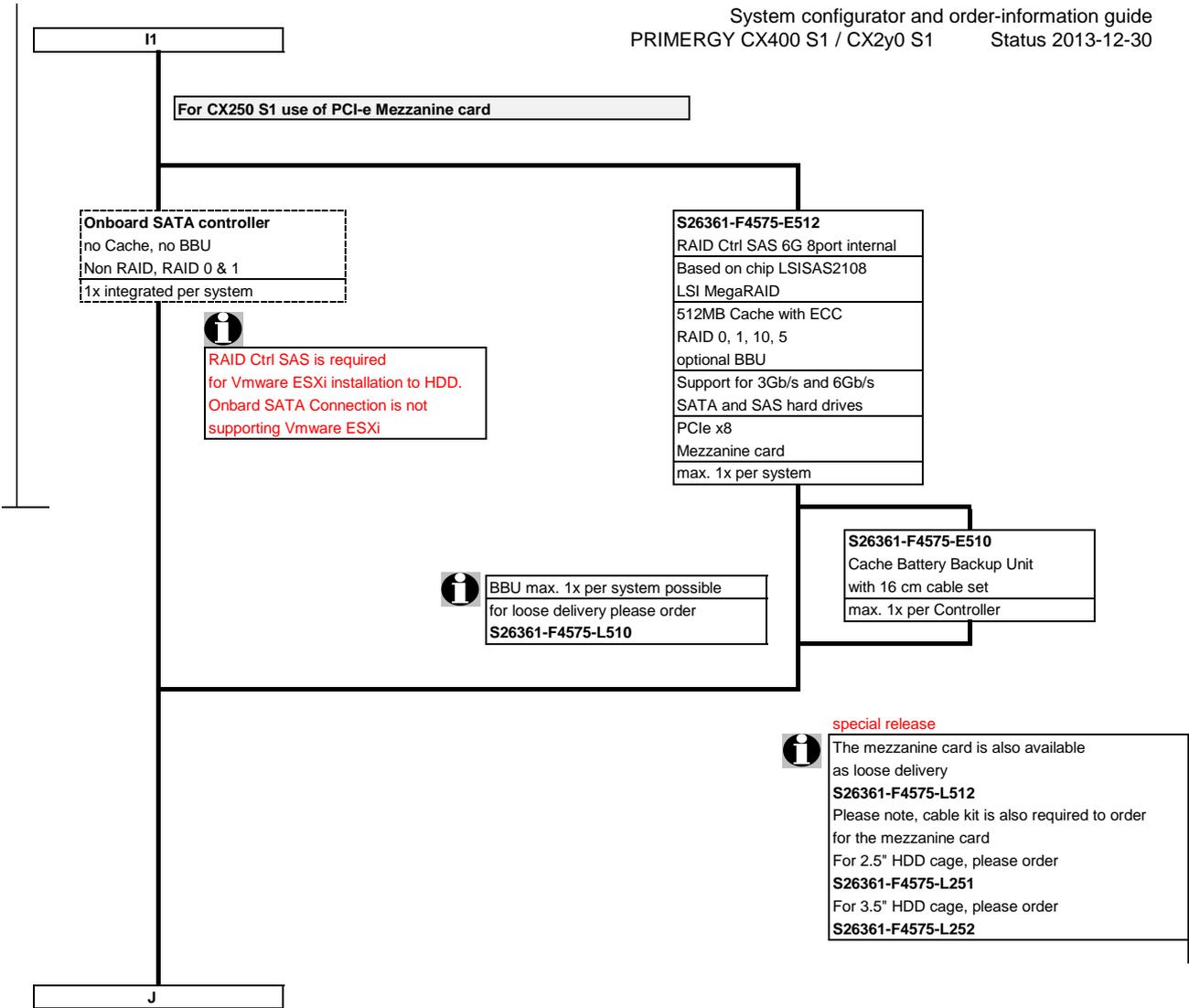
Section VIII Onboard SW Raid 0/1, additional Raid options

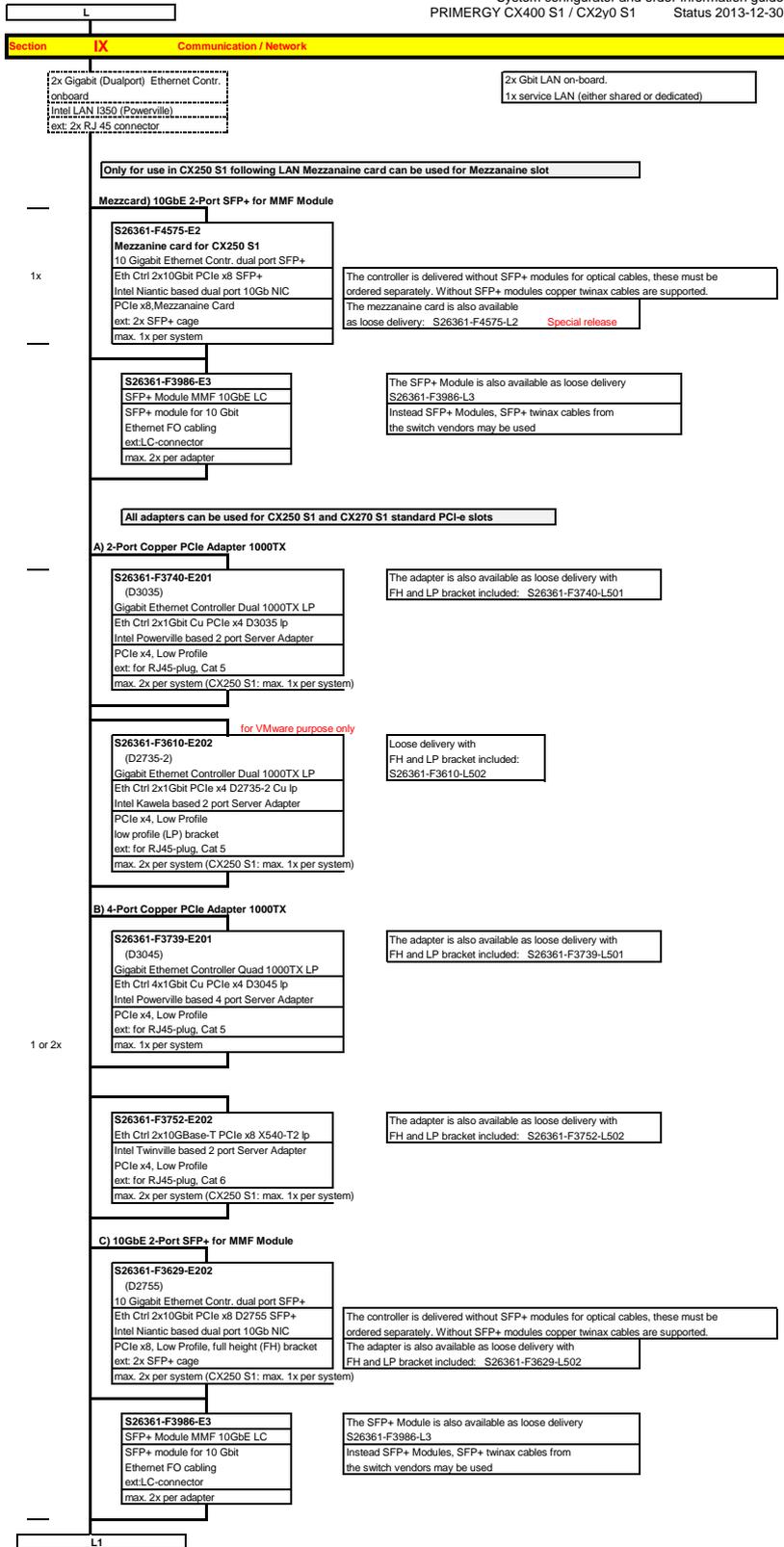
On board SATA Controller can be used with up to 6x non-raid 2.5" or 3x non-raid 4.5" SATA HDDs
 For up to 4x 2.5" or 3x 3.5" SATA HDDs with RAID 0/1 functionality by using Mega SR SW Raid
 For all SAS and other HDD configurations a additional RAID-controllers is required

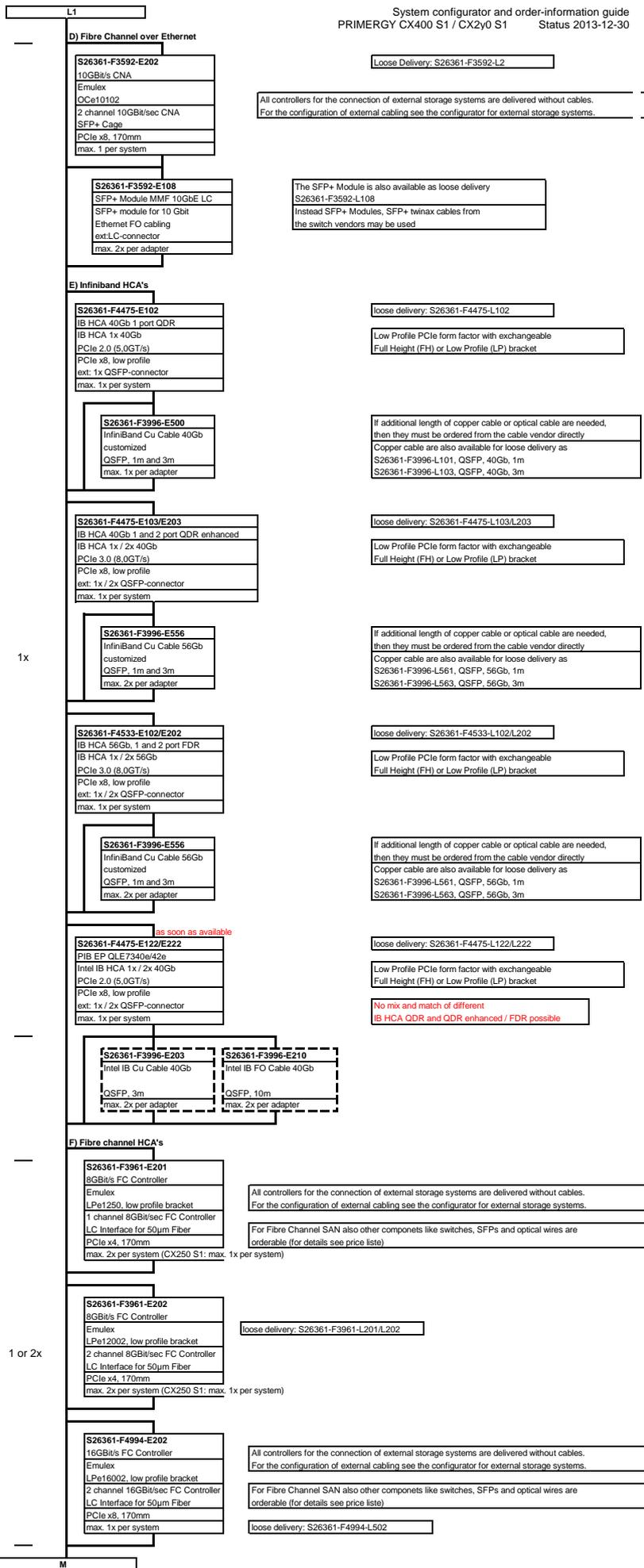
For more than 4 hard disks in a Raid configuration, or for use of SAS HDD / SSD; as well as for using Raid level 5 configuration; one of the following modular RAID-controllers is required

For CX270 S1 use of PCI-e standard slot (via Riser)









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Section X System Management Products (RemoteView)

AST2300 (integrated Remote Management Controller) onboard server management Controller with dedicated 10/100/ Service LAN-port and integrated graphics.
Dedicated 10/100 Service LAN-port at the rear side.
The Service LAN-port can be switched alternatively on standard Gbit LAN port



**S26361-F4575-E30
iKVM advanced pack**
integrated remote management controller
activation key for
graphical console redirection
and remote media redirection
max. 1x per system



Note: can only be enabled ex factory by ordering this order code.
There is no later upgrade possible, no -L number.

Section XI Miscellaneous



Options and other peripherals
For other options, refer to SystemArchitect and Pricelist
These options are supplied lose with the shipment
For suitable peripherals for this product, please refer to SystemArcitct

End PRIMERGY CX2y0 S1

