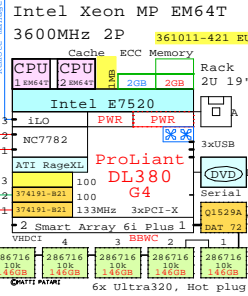
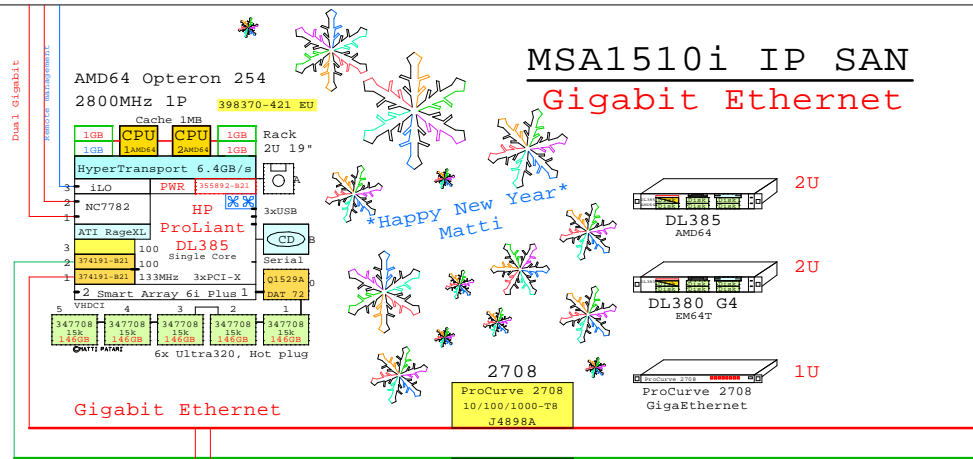


MSA1510i IP SAN Gigabit Ethernet



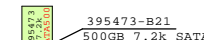
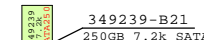
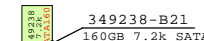
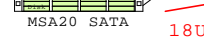
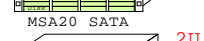
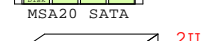
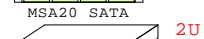
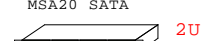
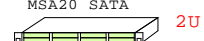
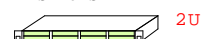
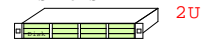
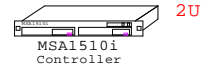
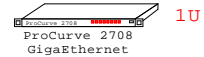
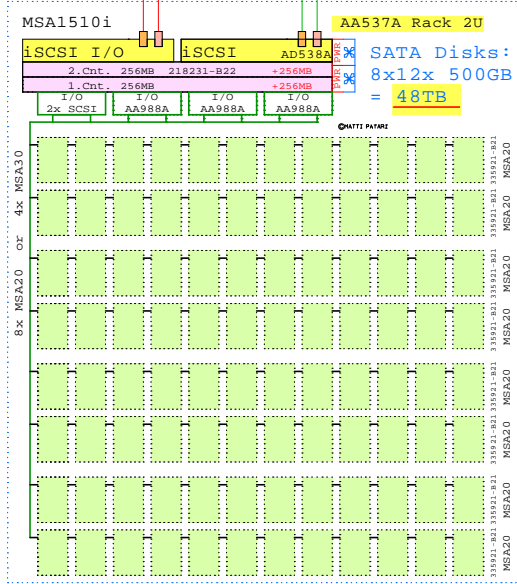
BOM for DL380 G4 and DL358 hosts

Part Number	Qty	Description
1	361011-421	1 DL380 G4 2P 3600MHz-1MB 2GB EM64T SCSI 2
1.1	286716-B22	5 146.8GB 10000r U320 disk 1"
1.2	343056-B21	1 2GB PC2 PC3200 DDR2 SDRAM kit(2x1GB)
1.3	374191-B21	2 NC370T PCI-X MultiFunct. Gigabit adapter
1.4	Q1529A	1 HP DAT 72 Tape Drive Hot-Plug
2	398370-421	1 HP DL385 IP SC 2.8GHz 1GB SCSI AMD254
2.1	293048-B21	1 DL380 G3 hot plug blower kit,3x fans
2.2	347708-B21	5 146.8GB 15000r U320 disk 1"
2.3	355892-B21	1 DL380 G4 second AC power supply
2.4	364507-B21	1 Floppy drive kit DL380 G4 SCSI only
2.5	374191-B21	2 NC370T PCI-X MultiFunct. Gigabit adapter
2.6	376638-B21	3 BC3200 1GB DDR SDRAM DIMM kit 2x512MB
2.7	399087-B21	1 DL385 2.8GHz SC AMP64 254 CPU option kit
2.8	Q1529A	1 HP DAT 72 Tape Drive Hot-Plug

Bom for Gigabit Ethernet Switches

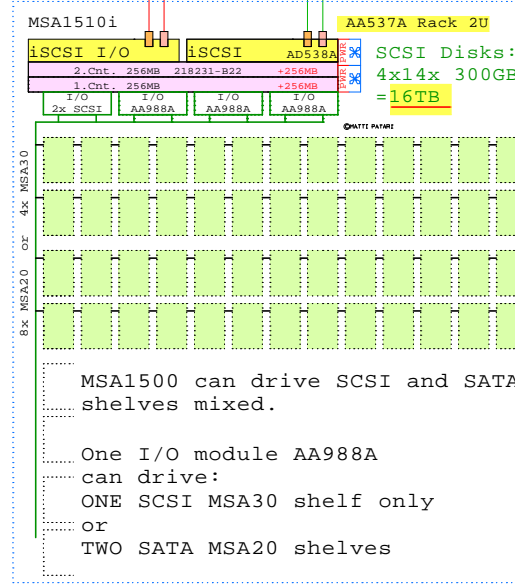
Part Number	Qty	Description
1	J4898A	2 ProCurve 2708 10/100/1000-T 8-Port

SATA



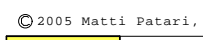
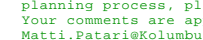
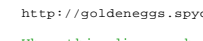
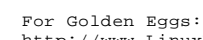
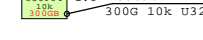
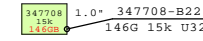
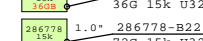
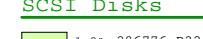
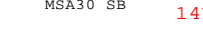
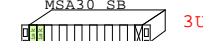
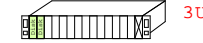
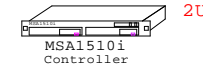
Gigabit Ethernet

SCSI



MSA1500 can drive SCSI and SATA shelves mixed.

- One I/O module AA988A can drive:
- ONE SCSI MSA30 shelf only
- OR
- TWO SATA MSA20 shelves



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BOM for MSA1510i with SATA disks

Part Number	Qty	Description
1	AA537A	1 MSA1510i iSCSI RAID Array 256MB Rack 2U
1.1	218231-B22	1 MSA1000 Redundant Controller 256MB
1.1.1	254786-B21	1 256MB cache module for Smart Array cntrl
1.2	254786-B21	1 256MB cache module for Smart Array cntrl
1.3	335921-B21	8 MSA20 SATA Raid 12 slot Ultra320
1.4	AA988A	3 MSA1500 SCSI I/O Dual channel module
1.5	AD538A	1 MSA1510i iSCSI I/O module,2xGigE-ports
2	349238-B21	1 160GB SATA Hot Plug 7200r disk 1"
3	349239-B21	1 250GB SATA Hot Plug 7200r disk 1"
4	395473-B21	1 500GB SATA Hot Plug 7200r disk 1"

SATA Disks

- 349238-B21 160GB 7.2k SATA
- 349239-B21 250GB 7.2k SATA
- 395473-B21 500GB 7.2k SATA

BOM for MSA1510i with SCSI disks

Part Number	Qty	Description
1	AA537A	1 MSA1510i iSCSI RAID Array 256MB Rack 2U
1.1	218231-B22	1 MSA1000 Redundant Controller 256MB
1.1.1	254786-B21	1 256MB cache module for Smart Array cntrl
1.2	254786-B21	1 256MB cache module for Smart Array cntrl
1.3	302969-B21	4 MSA30 Single Bus Ultra320 14x1"
1.4	AA988A	3 MSA1500 SCSI I/O Dual channel module
1.5	AD538A	1 MSA1510i iSCSI I/O module,2xGigE-ports
2	286776-B22	1 36GB 15000r U320 disk 1"
3	286778-B22	1 72.8GB 15000r U320 disk 1"
4	347708-B21	1 146.8GB 15000r U320 disk 1"
5	350964-B22	1 300GB 10000r U320 disk 1"

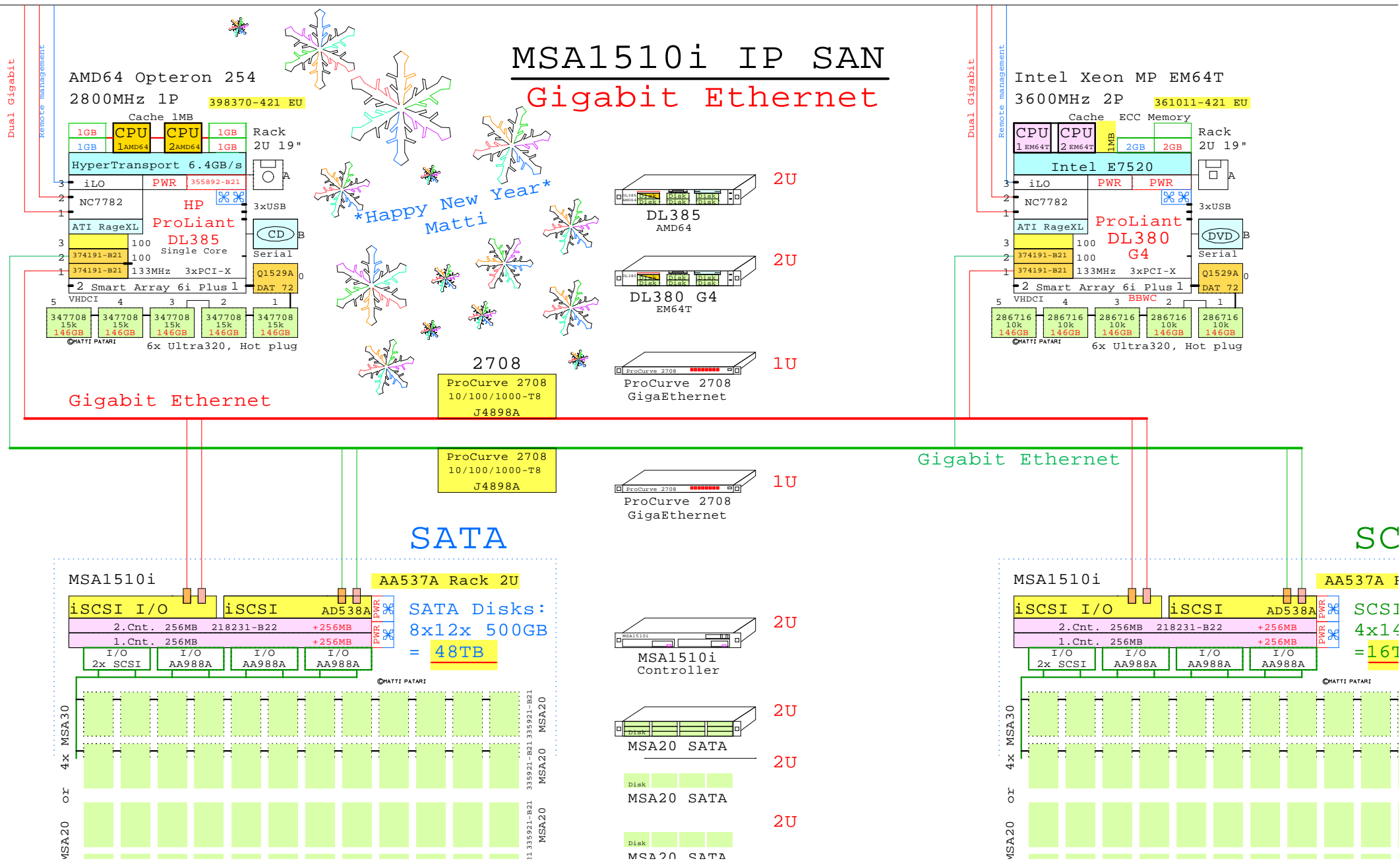
For more detailed configuring, please consult the latest HP QuickSpecs. Painted with Golden Eggs Software: 29-Dec-2005 All trademarks in this document are those of their owners.

MSA1510i IP SATA/SCSI

Golden Eggs Visuals Helsinki

HP StorageWorks MSA1510i IP SAN GOLDEN EGGS Visuals, Helsinki

MSA1510i IP SAN Gigabit Ethernet



AMD64 Opteron 254
2800MHz 1P 398370-421 EU

Cache 1MB
1GB CPU 1GB CPU 1GB
1GB 1AMD64 2AMD64 1GB

HyperTransport 6.4GB/s

3 iLO PWR 355892-B21 Rack 2U 19"

2 NC7782 HP ProLiant DL385

1 ATI RageXL Single Core

3 374191-B21 100 3xUSB

2 374191-B21 133MHz 3xPCI-X

5 VHD CI 4 3 2 1

347708 15k 146GB
347708 15k 146GB
347708 15k 146GB
347708 15k 146GB
347708 15k 146GB

6x Ultra320, Hot plug

Intel Xeon MP EM64T
3600MHz 2P 361011-421 EU

Cache ECC Memory
1 CPU 2 CPU 1MB 2GB 2GB

Intel E7520 Rack 2U 19"

3 iLO PWR PWR

2 NC7782 HP ProLiant DL380 G4

1 ATI RageXL

3 374191-B21 100 3xUSB

2 374191-B21 133MHz 3xPCI-X

5 VHD CI 4 3 2 1

286716 10k 146GB
286716 10k 146GB
286716 10k 146GB
286716 10k 146GB
286716 10k 146GB

6x Ultra320, Hot plug

- DL385 AMD64 2U
- DL380 G4 EM64T 2U
- ProCurve 2708 GigaEthernet 1U

Gigabit Ethernet

Gigabit Ethernet

SATA

MSA1510i AA537A Rack 2U

iSCSI I/O iSCSI AD538A

2.Cnt. 256MB 218231-B22 +256MB

1.Cnt. 256MB +256MB

I/O AA988A I/O AA988A I/O AA988A

SATA Disks: 8x12x 500GB = 48TB

MSA20 SATA

MSA20 SATA

MSA20 SATA

- ProCurve 2708 GigaEthernet 1U
- MSA1510i Controller 2U
- MSA20 SATA 2U
- MSA20 SATA 2U
- MSA20 SATA 2U

SC

MSA1510i AA537A F

iSCSI I/O iSCSI AD538A

2.Cnt. 256MB 218231-B22 +256MB

1.Cnt. 256MB +256MB

I/O AA988A I/O AA988A I/O AA988A

SCSI Disks: 4x14 = 16T

MSA20 SATA

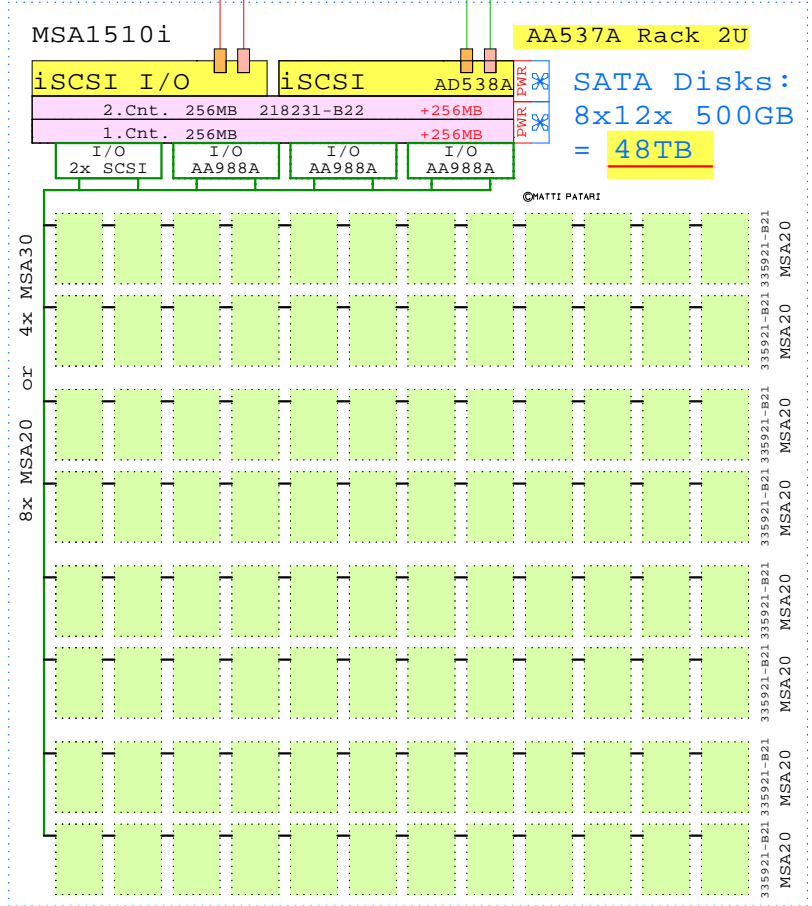
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MSA20 SATA

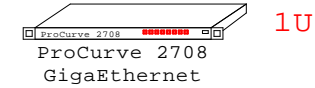
ProCurve 2708
10/100/1000-T8
J4898A

Gigabit Ethernet

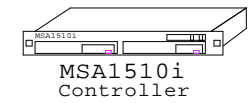
SATA



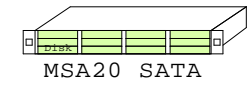
SATA Disks:
8x12x 500GB
= 48TB



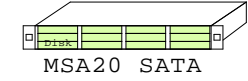
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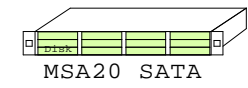
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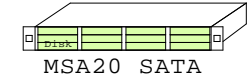
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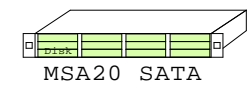
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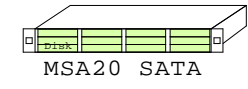
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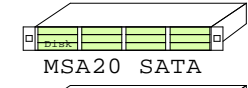
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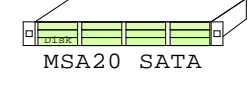
2U



2U

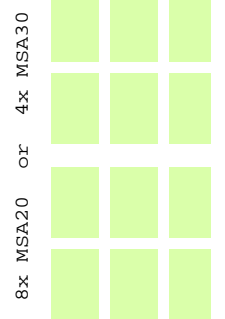
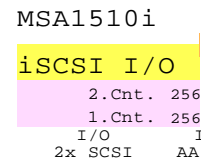


2U



2U

18U



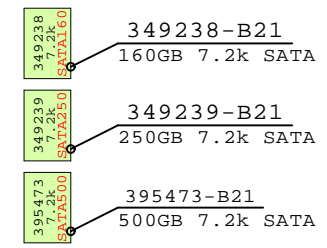
MSA15
shelv

One I
can c
ONE S
or
TWO S

BOM for MSA1510i with SATA disks

Part Number	Qty	Description
1	AA537A	1 MSA1510i iSCSI RAID Array 256MB Rack 2U
1.1	218231-B22	1 MSA1000 Redundant Controller 256MB
1.1.1	254786-B21	1 256MB cache module for Smart Array cntrl
1.2	254786-B21	1 256MB cache module for Smart Array cntrl
1.3	335921-B21	8 MSA20 SATA Raid 12 slot Ultra320
1.4	AA988A	3 MSA1500 SCSI I/O Dual channel module
1.5	AD538A	1 MSA1510i iSCSI I/O module, 2xGigE-ports
2	349238-B21	1 160GB SATA Hot Plug 7200r disk 1"
3	349239-B21	1 250GB SATA Hot Plug 7200r disk 1"
4	395473-B21	1 500GB SATA Hot Plug 7200r disk 1"

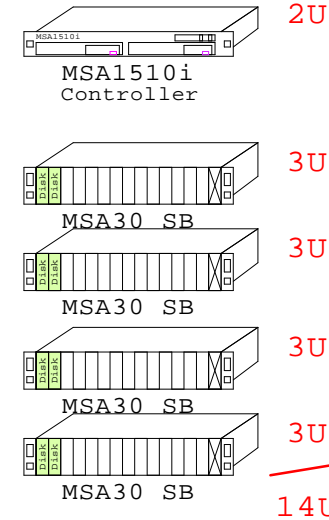
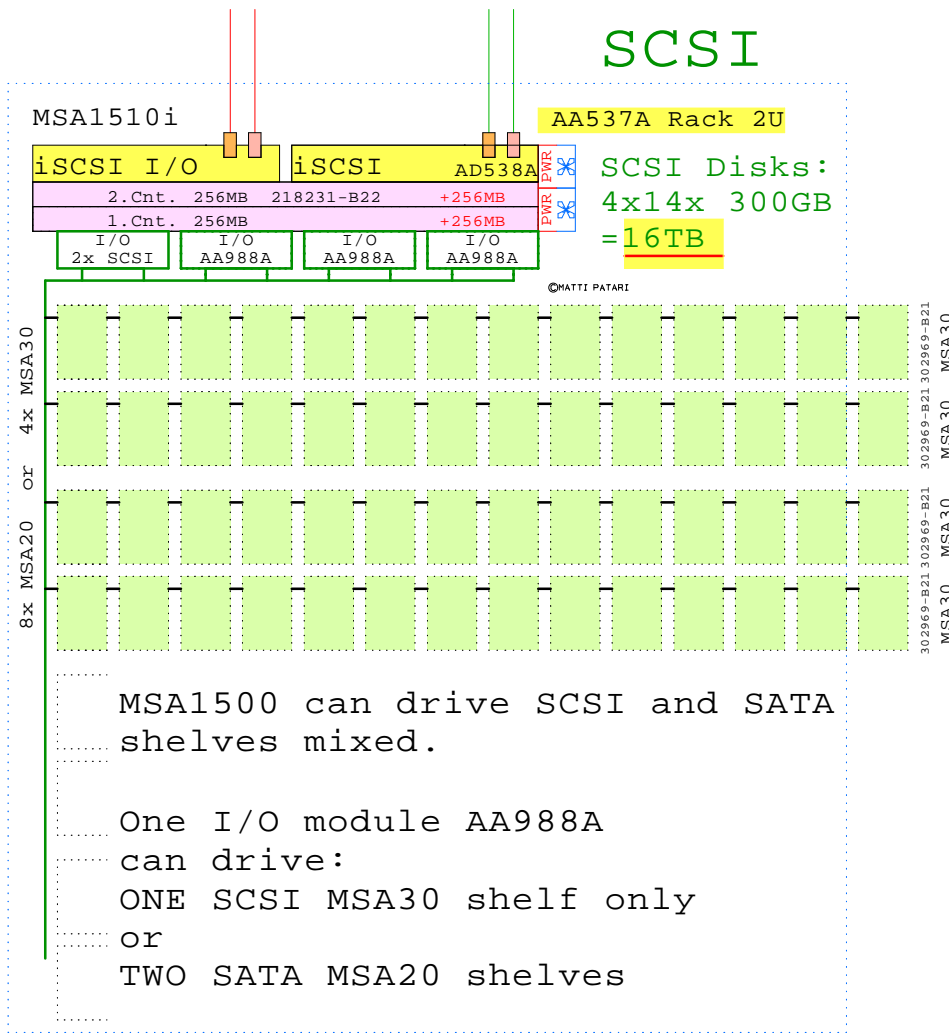
SATA Disks



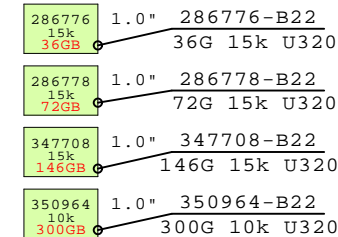
BOM for MSA1

Part	Part
1	AA537
1.1	21823
1.1.1	25478
1.2	25478
1.3	30296
1.4	AA988
1.5	AD538
2	28677
3	28677
4	3477C
5	3509E

SCSI



SCSI Disks



BOM for MSA1510i with SCSI disks

	Part Number	Qty	Description
1	AA537A	1	MSA1510i iSCSI RAID Array 256MB Rack 2U
1.1	218231-B22	1	MSA1000 Redundant Controller 256MB
1.1.1	254786-B21	1	256MB cache module for Smart Array cntrl
1.2	254786-B21	1	256MB cache module for Smart Array cntrl
1.3	302969-B21	4	MSA30 Single Buss Ultra320 14x1"
1.4	AA988A	3	MSA1500 SCSI I/O Dual channle module
1.5	AD538A	1	MSA1510i iSCSI I/O module, 2xGigE-ports
2	286776-B22	1	36GB 15000r U320 disk 1"
3	286778-B22	1	72.8GB 15000r U320 disk 1"
4	347708-B21	1	146.8GB 15000r U320 disk 1"
5	350964-B22	1	300GB 10000r U320 disk 1"

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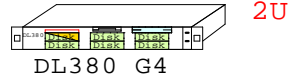
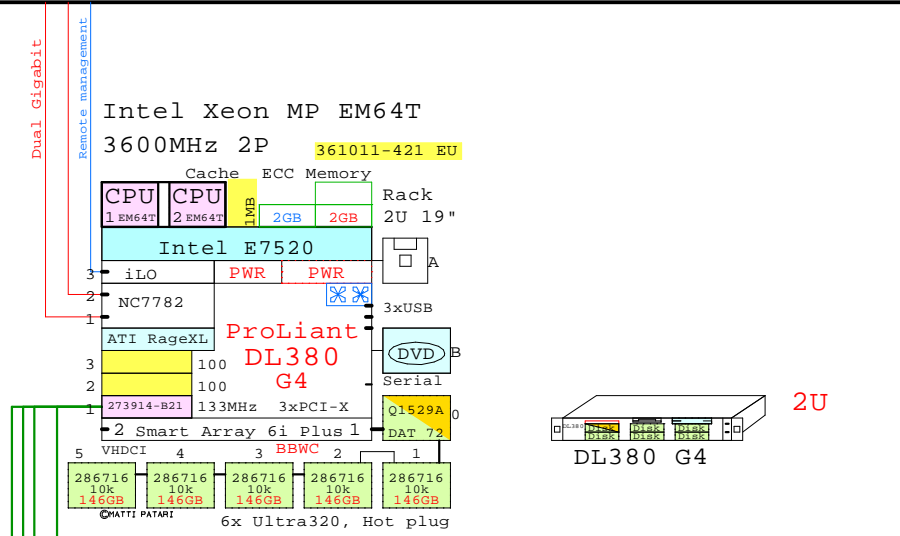
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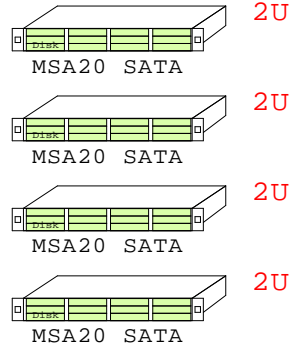
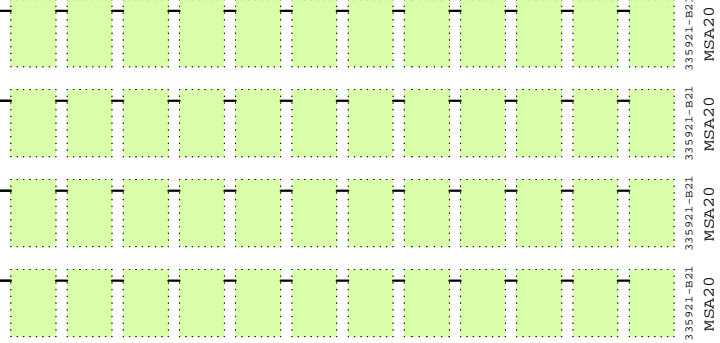
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	Matti.Patari@Kolumbus.fi	



One 3feet VHDCI-VHDCI cable included in each MSA20

Smart Array 6404/256

MSA20 SATA Storage, 4x3TB



SATA Disks

- 349238 SATA150 349238-B21 160GB 7.2k SATA
- 349239 SATA250 349239-B21 250GB 7.2k SATA
- 395473 SATA500 395473-B21 500GB 7.2k SATA

BOM for the DL380 G4 host

Part Number	Qty	Description
286716-B22	5	146.8GB 10000r U320 disk 1"
343056-B21	1	2GB PC2 PC3200 DDR2 SDRAM kit(2x1GB)
361011-421	1	DL380 G4 2P 3600MHz-LMB 2GB EM64T 2U
Q1529A	1	HP DAT 72 Tape Drive Hot-Plug

MSA20 storage products

Part Number	Qty	Description
273914-B21	1	Smart Array 6404/256 Ultra320 4-chan
273915-B21	1	Smart Array 6402/128 Ultra320 2-chan
335921-B21	4	MSA20 SATA Raid 12 slot Ultra320
349238-B21	1	160GB SATA Hot Plug 7200r disk 1"
349239-B21	1	250GB SATA Hot Plug 7200r disk 1"
395473-B21	1	500GB SATA Hot Plug 7200r disk 1"

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<http://goldeneggs.spyderbyte.com/>

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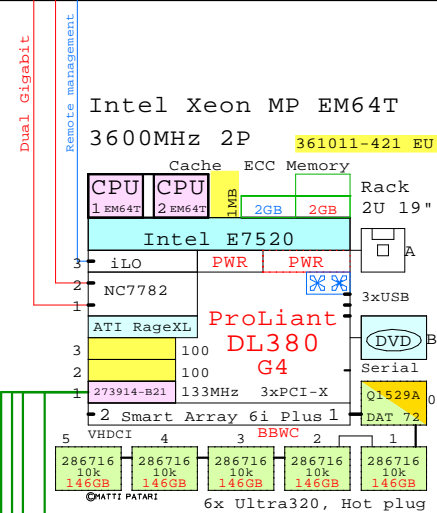
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HP StorageWorks MSA20, SATA
GOLDEN EGGS Visuals, Helsinki

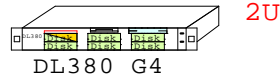
storage hardware graph show not
storage hardware graph show not
diagram shows MSA20 1x3 4x4 pdr
MSA20 1x3 4x4 pdr
operation diagram to describe MSA20
quantity and 25-64 4x4 130mm
MSA20 1x3 4x4 pdr
goldeneggs.spiderbyte.com

For more detailed configuring, please consult the latest HP QuickSpecs.
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MSA20 SATA



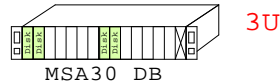
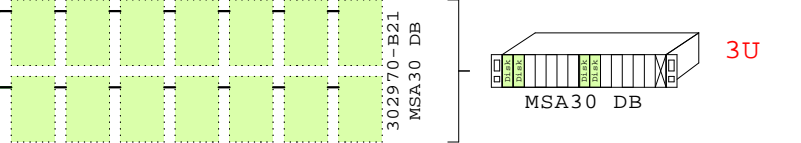
273915-B21
Smart Array 6402/128



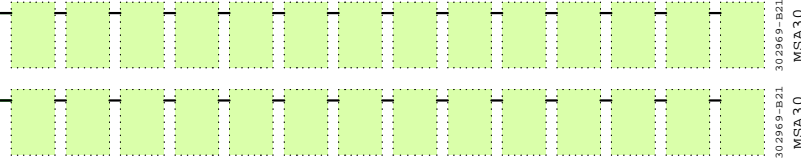
One or two VHDCI-VHDCI cables included in MSA30.

Smart Array 6404/256

MSA30 Dual Bus SCSI Storage



MSA30 Single Bus SCSI Storage



SCSI Disks

286776-15k 36GB	1.0"	286776-B22	36G 15k U320
286778-15k 72GB	1.0"	286778-B22	72G 15k U320
347708-15k 146GB	1.0"	347708-B22	146G 15k U320
350964-10k 300GB	1.0"	350964-B22	300G 10k U320

BOM for the DL380 G4 host

Part Number	Qty	Description
286716-B22	5	146.8GB 10000r U320 disk 1"
343056-B21	1	2GB PC2 PC3200 DDR2 SDRAM kit (2x1GB)
361011-421	1	DL380 G4 2P 3600MHz-1MB 2GB EM64T 2U
Q1529A	1	HP DAT 72 Tape Drive Hot-Plug

MSA30 storage products

Part Number	Qty	Description
273914-B21	1	Smart Array 6404/256 Ultra320 4-chan
273915-B21	1	Smart Array 6402/128 Ultra320 2-chan
286776-B22	1	36GB 15000r U320 disk 1"
286778-B22	1	72.8GB 15000r U320 disk 1"
302969-B21	2	MSA30 Single Buss Ultra320 14x1"
302970-B21	1	MSA30 Dual Buss Ultra320 7+7 1"
347708-B21	1	146.8GB 15000r U320 disk 1"
350964-B22	1	300GB 10000r U320 disk 1"

For Golden Eggs:
<http://www.LinuxHPC.org>
<http://goldeneggs.spyderbyte.com/>

When this diagram has supported your planning process, please let me know. Your comments are appreciated. Matti.Patari@Kolumbus.Fi GE-Painter.

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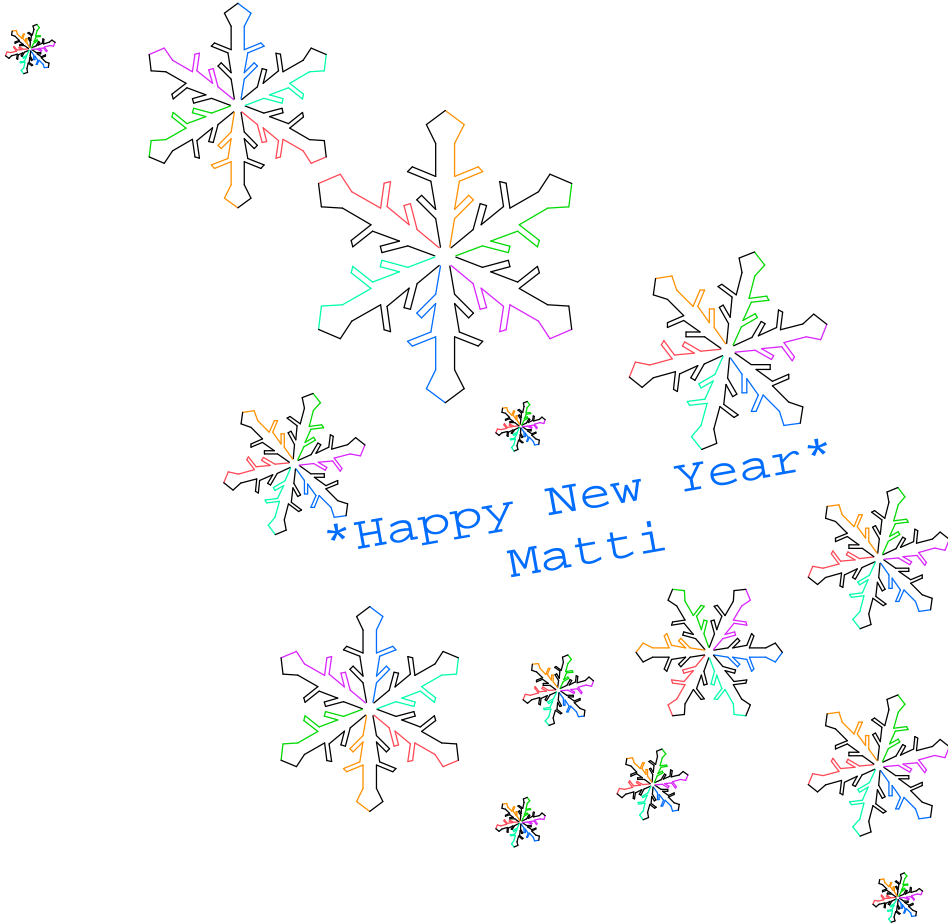
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HP StorageWorks MSA30, SCSI
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MSA30 SCSI

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For more detailed configuring, please consult the latest HP QuickSpecs.
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<small>First rev 30-Dec-05</small>		

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