

AlphaServer ES45 68/1000 Systems, 64bits 1000MHz

Model	Tru64 UNIX	OpenVMS	Linux Ready
#1 M2 10xPCI	-BA 1GB -CA 2GB -DA 4GB	-BA 1GB -CA 2GB -DA 4GB	-BA 1GB -CA 2GB -DA 4GB

#2 Select Enclosure, Disk Cage, Disk Drive, USCSI Controller, Ethernet and Graphics.

Mini-Tower Enclosure

BA61M-CT	Mini-Tower box
3X-KZPCA-AA	USCSI adapter
BA610-6D	Disk Drive Cage
3R-A0585-AA	Disk 18.2GB 10k
3R-A0919-AA	Disk 36.4GB 10k
3X-DE602-AA	2x Ether 10/100
BN25G-10	Cable, twisted
SN-PBXGF-AB	3DLabs 2D graph
BN19C-2E	Power cord, 3x

Pedestal - M4314R

BA61P-CB	Pedestal cabinet
3X-KZPCA-AA	USCSI adapter
BN38C-02	SCSI cable, 2m
DS-SL13R-AB	Single-buss shelf
3R-A1543-AA	Disk 18.2GB 15k
3X-DE602-AA	2x Ether 10/100
BN25G-10	Cable, twisted
SN-PBXGF-AB	3DLab 2D graph
BN19C-2E	Power cord 3x

Cabinet - M4314R

H9A15-ME/MF	Cabinet US/Europe, 40U
H9C15-ZE	Cabinet rear extender
H9C15-ZF	Cabinet front door
H9C10-MC	Ballast kit, 40lbs
BA61R-CR	Rack mount kit
YS-ASCAA-AA	Factory integration
3X-KZPCA-AA	Ultra2 SCSI adapte, 1-2
BN38C-05	SCSI cable, 5m, 1-2
DS-SL13R-AB	Shelf M4314, single b.
DS-SE2UP-A1	2nd power supply, Int
DS-SL13R-BB	Shelf M4354, dual bus
3R-A1543-AA	Disk 18.2GB 15k
3X-DE602-AA	2x Ether 10/100
BN25G-10	Cable, twisted
SN-PBXGF-AB	3DLabs 2D graph

#3 SVGA color monitor #4 Select keyboard and power cord

15"	3R-VRQV5-24/11
17"	3R-VRQP7-24/23
North/South	
BN39C-02	2m ext. cable

SN-LKQ47	-AE GB	-AG G	-AM S	BN19C-2E Europe
UNIX, Lin	-AB B	-AH NL	-AN N	BN19A-2E GB
	-AD DK	-AI I	-AP F	BN19E-2E CH
LK461	-AF FI	-AK CH	-AS E	BN19K-2E DK
OVMS				BN19Z-2E I

Internal options

Memory expansion

MS620-BA	1GB
MS620-CA	2GB
MS620-DA	4GB

Additional CPUs, Max 4

UNIX	KN610-DB 1000MHz
OVMS	KN610-DC
Linux	KN610-DA

Power supply, 1 optional.

H7906-A9	CPU power
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Internal storage

Tape storage

TLZ10-LB	12/24GB DAT Tape drive
3X-BN46M-01	Multi head SCSI cable
Disk storage	
3R-A1543-AA	18GB Universal disk 15k
3R-A3079-AA	36GB Universal disk 15k
3R-A3050-AA	72GB Universal disk 10k

KZPBA-CA	UltraSCSI SE adapter
BN38C-02	2m SCSI cable, 68HD-VHDCI
KZPCM-DA	Dual UltraSCSI+ Ethernet
BN37A-02	2m SCSI cable, VHDCI-VHDCI
KZPAC-CB	RAID 3-port, 8MB cache
KZPSC-UB	Cache battery
KZPAC-SB	Dual cable bulkhead
BN37A-02	2m SCSI cable VHDCI-VHDCI

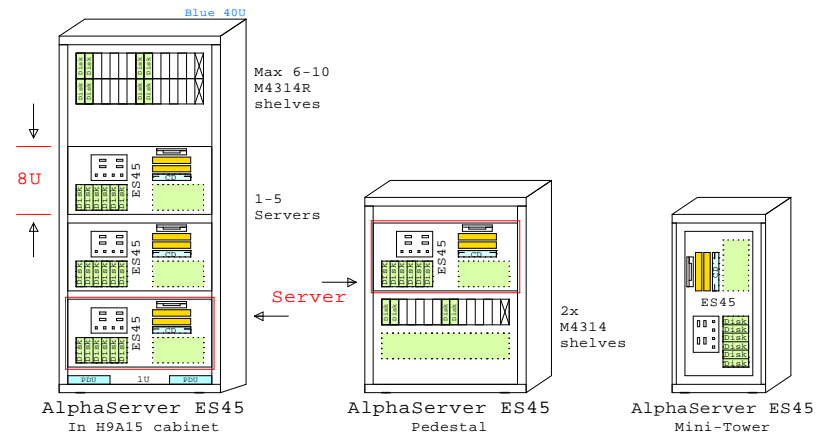
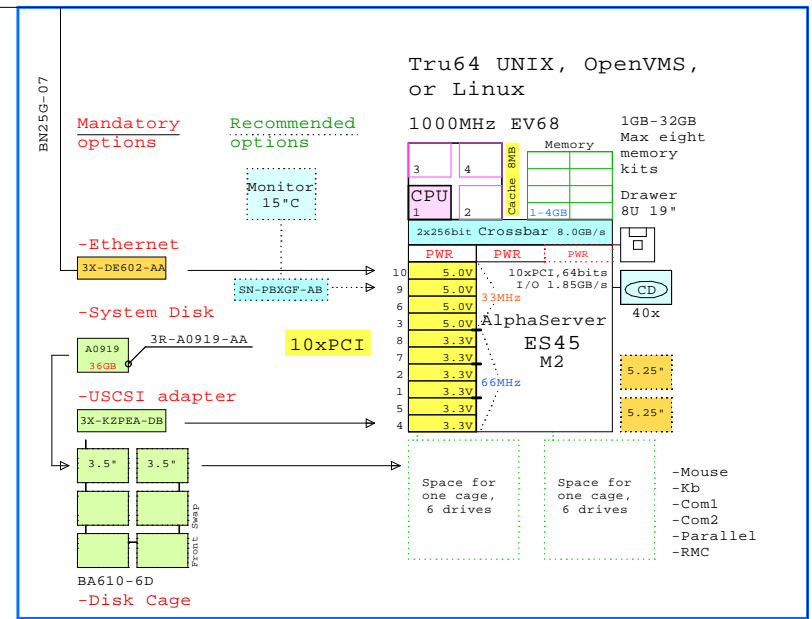
Controllers

3X-DE602-AA	2xEthernet 10/100
DEGPA-SA	Gigabit Ethernet
3X-DEFPA-AC	FDDI adapter, SAS MMF
CCMAB-AA	Memory Channel
CIPCA-BA	CI controller
DS-KGPSA-CA	Fibre Channel adapt
168794-B21	--"

External options

Tape storage, DLT

3X-KZPCA-AA	USCSI adapter LVD
328215-001	68HD-68HD cable 5m
146197-B21	40/80 DLT tape TT
BN19C-2E	Power cord, Europe



SPECint2000	679	Min.ver.	V5.1A
SPECfp2000	960	Tru64 UNIX	V7.3
		OpenVMS	V7.3
		Linux	V2.4

Software Processor Code: E

COMPAQ	05-Mar-2002	GEAES451
	Matti.Patari@compaq.com	

AlphaServer ES45 1000MHz Syst.
GOLDEN EGGS Visuals, Helsinki

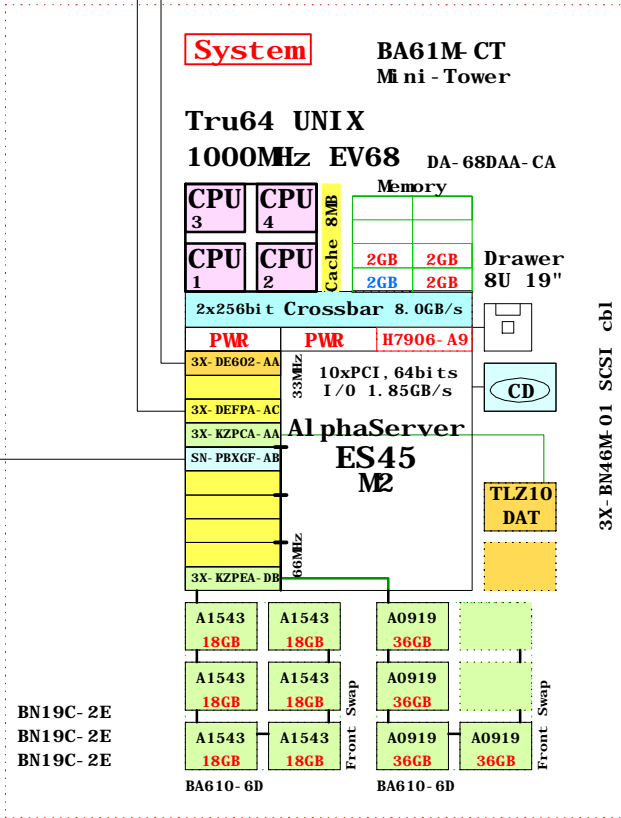
ES45 Model 2 Mini Tower System

Ethernet

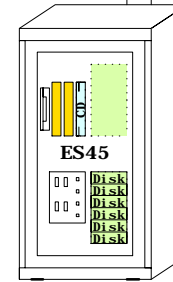
FDDI

BN19C- 2E
SN- LKQ47- AF
BN39C- 02, Vi deo

Monit
15" C



BN19C- 2E
BN19C- 2E
BN19C- 2E



AlphaServer ES45
Mini - Tower

Bill of material of this Tower system

	Part Number	Qty	Description
1	BA61M CT	1	ES45 Mini - Tower Enclosure
1.1	3X- BN46M- 01	1	SCSI cable for Tape
1.2	BN19C- 2E	3	PowerCable 240V, C- Europe
1.3	DA- 68DAA- CA	1	ES45 68/1000 Model 2 2GB UNIX 10PCI DWR
1.3.1	3X- DE602- AA	1	10/100 2xChannel Ethernet, Twisted
1.3.2	3X- DEFPA- AC	1	PCI to FDDI SAS MMF with SC, Universal
1.3.3	3X- KZPCA- AA	1	Single channel LVD adapter
1.3.4	3X- KZPEA- DB	1	PCI 2- chan SCSI Ultra3 LVD
1.3.5	BA610- 6D	1	ES40 Disk Drive Cage, 6- Bay
1.3.5.1	3R- A1543- AA	6	18.2GB Uscsi3 15k Universal disk 1"
1.3.6	BA610- 6D	1	ES40 Disk Drive Cage, 6- Bay
1.3.6.1	3R- A0919- AA	4	36.4GB Uscsi3 10k Universal disk 1"
1.3.7	H7906- A9	1	ES40 Power Syply, 2nd or 3rd
1.3.8	KN610- DB	3	ES45 68/1000MHz UNIX SMP 8mb cache
1.3.9	MS620- CA	3	ES45 2GB Memory Option
1.3.10	SN- PBXGF- AB	1	3DLabs Oxygen VXI 32MB PCI 2D graphics
1.3.11	TLZ10- LB	1	12/24GB 4mm DAT 5.25" HH
2	3R- A2832- AA	1	COMPAQ Monitor S510 15" NH, EU
2.1	BN39C- 02	1	1.8 Video Extension Cable ****
3	SN- LKQ47- AF	1	102 KEY KYBD, NON- WN, Finnish
4	BN19C- 2E	1	PowerCable 240V, C- Europe

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Since: Sep- 2001

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08- Oct- 2001

GTAUES451

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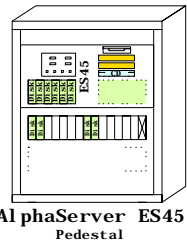
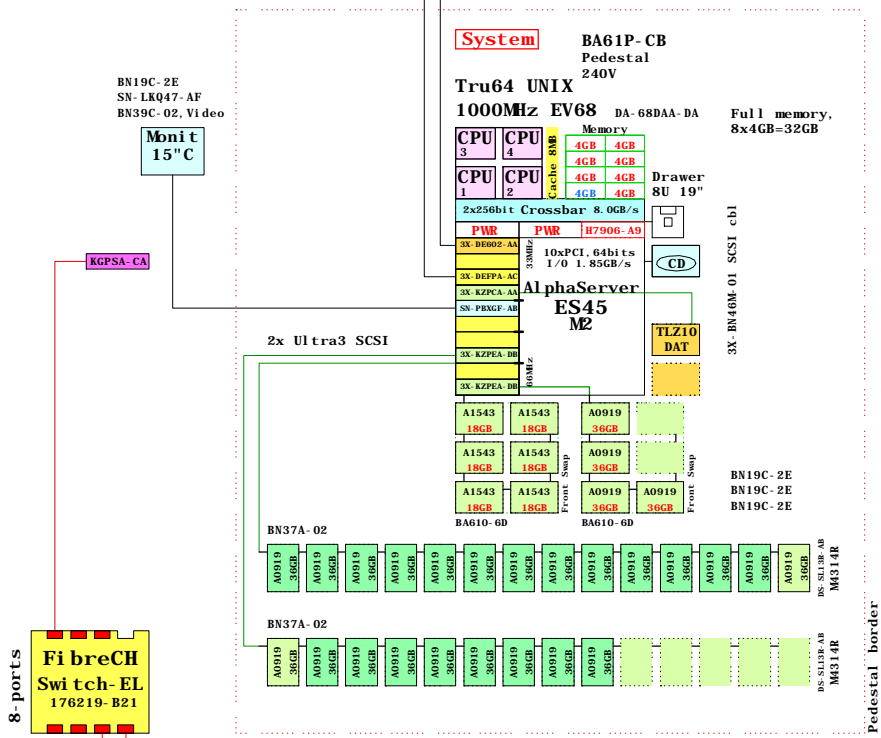
ES45 UNIX

AlphaServer ES45 Mini Tower
GOLDEN EGGS Visuals, Helsinki

This template is included in the present GOLDEN EGGS Software kit.

Ethernet
FDDI

ES45 Model 2 Pedestal System



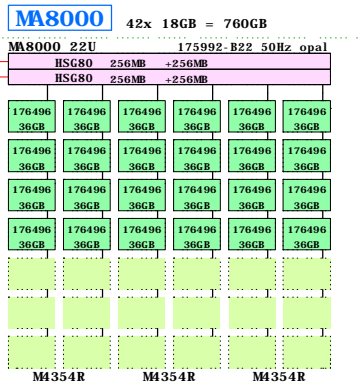
Bill of material for the base Pedestal

Part Number	Qty	Description
1	1	BA61P-CB ES45 Pedestal Enclosure 240V Europe
1.1	1	3X-BN46M-01 SCSI cable for Tape
1.2	3	BN19C-2E PowerCable 240V, C-Europe
1.3	2	BN37A-02 Ultra Cbl VHDCI - VHDCI
1.4	1	DA-68DAA-DA ES45 68/1000 Model 2 4GB UNIX 10PCI DWR
1.4.1	1	3X-DE602-AA 10/100 2xChannel Ethernet, Twisted
1.4.2	1	3X-DEFPA-AC PCI to FDDI SAS MMF with SC, Universal
1.4.3	1	3X-KZPCA-AA Single channel LVD adapter
1.4.4	2	3X-KZPEA-DB PCI 2-chan SCSI Ultra3 LVD
1.4.5	1	BA610-6D ES40 Disk Drive Cage, 6-Bay
1.4.5.1	6	3R-A1543-AA 18.2GB Uscsi3 15k Universal disk 1"
1.4.6	1	BA610-6D ES40 Disk Drive Cage, 6-Bay
1.4.6.1	4	3R-A0919-AA 36.4GB Uscsi3 10k Universal disk 1"
1.4.7	1	H7906-A9 ES40 Power Syplly, 2nd or 3rd
1.4.8	3	KN610-DB ES45 68/1000MHz UNIX SMP 8mb cache
1.4.9	7	MS620-DA ES45 4GB Memory Option
1.4.10	1	SN-PBXGF-AB 3DLabs Oxygen VXI 32MB PCI 2D graphics
1.4.11	1	TLZ10-LB 12/24GB 4mm DAT 5.25" HH
1.5	1	DS-SL13R-AB Modula M4314R single buss, 14x 1.0" Int
1.5.1	9	3R-A0919-AA 36.4GB Uscsi3 10k Universal disk 1"
1.6	1	DS-SL13R-AB Modula M4314R single buss, 14x 1.0" Int
1.6.1	14	3R-A0919-AA 36.4GB Uscsi3 10k Universal disk 1"
2	1	3R-A2832-AA COMPAQ Monitor S510 15" NH, EU
2.1	1	BN39C-02 1.8 Video Extension Cable ****
3	1	SN-LKQ47-AF 102 KEY KYBD, NON-WIN, Finnish
4	1	BN19C-2E PowerCable 240V, C-Europe

BOM for the external RA8000 RAID

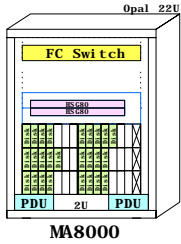
Part Number	Qty	Description
1	1	175992-B22 MA8000 6x7 22U 50Hz opal
1.1	2	128697-B21 ACS V8.5F controller FCAL/FCSW
1.2	2	HSGxx Single external cache battery
1.3	24	176496-B22 36GB 10000r Ultra3 SCSI disk 1"
1.4	1	176622-B21 HSG80 FC Contr with 256MB cache
1.4.1	1	380674-B21 Cache Upg RA8k ESA12k 256MB
1.5	1	176622-B21 HSG80 FC Contr with 256MB cache
1.5.1	1	380674-B21 Cache Upg RA8k ESA12k 256MB
1.6	1	380553-001 OS Platf. Softw. Kit for FC Alpha UNIX
2	1	176219-B21 SAN Switch EL 8-Ports
3	1	234457-B23 Fibre Channel 15m Optical Cable
4	1	167365-B21 Rack mount kit for SAN switch
5	2	234457-B21 Fibre Channel 02m Optical Cable
6	1	168794-B21 Host Buss Cntr KGPSA-CA, OVMS, UNIX

234457-B23 0-Cbl 15m
234457-B21 0-Cbl 2m
234457-B21 0-Cbl 2m
167365-B21 Rack kit



135823-B21 Cache BB 128697-B21 ACS 8.5F
135823-B21 Cache BB 128697-B21 ACS 8.5F

Host kit: Tru64 UNIX
380553-001 Alp/UNIX



MA8000

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ES45 UNIX

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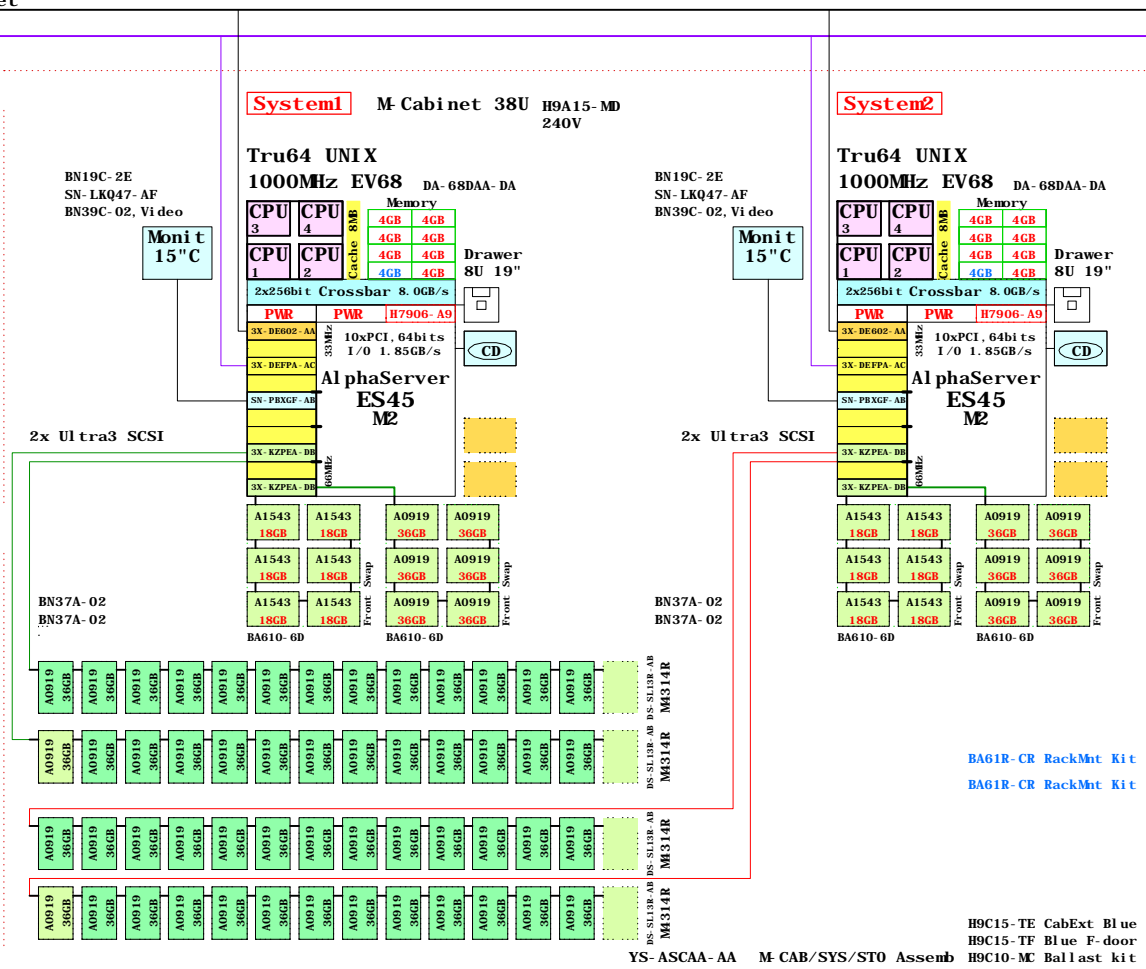
AlphaServer ES45 UNIX Pedestal
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ES45 Model 2 Systems in Cabinet M15

Ethernet

FDI

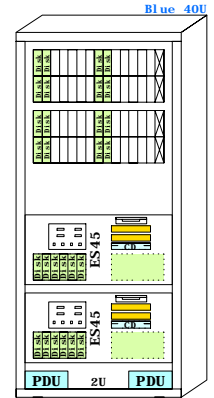


Bill of material for Cabinet and System 1

Part Number	Qty	Description
1	1	H9A15-MD 1 M-Series Cab, H9A15, Blue, 240V 38U
1.1	1	3R-A2832-AA 1 COMPAQ Monitor S510 15" NH, EU
1.2	1	BN19C-2E 1 PowerCable 240V, C-Europe
1.3	2	BN37A-02 2 Ultra Cbl VHDICI - VHDICI
1.4	1	BN39C-02 1 1.8 Video Extension Cable ****
1.5	1	DA-68DAA-DA 1 ES45 68/1000 Model 2 4GB UNIX 10PCI DWR
1.5.1	1	3X-DE602-AA 1 10/100 2xChannel Ethernet, Twisted
1.5.2	1	3X-DEEPA-AC 1 PCI to FDDI SAS MMF with SC, Universal
1.5.3	2	3X-KZPEA-DB 2 PCI 2-chan SCSI Ultra3 LVD
1.5.4	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.5.4.1	6	3R-A1543-AA 6 18.2GB Uscsi3 15k Universal disk 1"
1.5.5	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.5.5.1	6	3R-A0919-AA 6 36.4GB Uscsi3 10k Universal disk 1"
1.5.6	1	H7906-A9 1 ES40 Power Sply, 2nd or 3rd
1.5.7	3	KN610-DB 3 ES45 68/1000MHz UNIX SMP 8mb cache
1.5.8	7	MS620-DA 7 ES45 4GB Memory Option
1.5.9	1	SN-PBXGF-AB 1 3DLabs Oxygen VXI 32MB PCI 2D graphics
1.6	1	DS-SL13R-AB 1 Modul a M314R single buss, 14x 1.0" Int
1.6.1	13	3R-A0919-AA 13 36.4GB Uscsi3 10k Universal disk 1"
1.7	1	DS-SL13R-AB 1 Modul a M314R single buss, 14x 1.0" Int
1.7.1	13	3R-A0919-AA 13 36.4GB Uscsi3 10k Universal disk 1"
1.8	1	DS-SL13R-AB 1 Modul a M314R single buss, 14x 1.0" Int
1.8.1	13	3R-A0919-AA 13 36.4GB Uscsi3 10k Universal disk 1"
1.9	1	DS-SL13R-AB 1 Modul a M314R single buss, 14x 1.0" Int
1.9.1	13	3R-A0919-AA 13 36.4GB Uscsi3 10k Universal disk 1"
1.10	1	H9C10-MC 1 Ballast kit for cabinets
1.11	1	H9C15-TE 1 Rear cab extender for H9A15 Blue
1.12	1	H9C15-TF 1 FrontDoorKit Blue for H9A15
1.13	1	SN-LK047-AF 1 102 KEY KYBD, NON-WIN, Finnish
1.14	1	YS-ASCAA-AA 1 M-CAB/SYS/STO Assembly

Bill of material for System 2

Part Number	Qty	Description
1	1	DA-68DAA-DA 1 ES45 68/1000 Model 2 4GB UNIX 10PCI DWR
1.1	10	3X-DE602-AA 1 10/100 2xChannel Ethernet, Twisted
1.2	1	3X-DEEPA-AC 1 PCI to FDDI SAS MMF with SC, Universal
1.3	2	3X-KZPEA-DB 2 PCI 2-chan SCSI Ultra3 LVD
1.4	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.4.1	6	3R-A1543-AA 6 18.2GB Uscsi3 15k Universal disk 1"
1.5	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.5.1	6	3R-A0919-AA 6 36.4GB Uscsi3 10k Universal disk 1"
1.6	1	H7906-A9 1 ES40 Power Sply, 2nd or 3rd
1.7	3	KN610-DB 3 ES45 68/1000MHz UNIX SMP 8mb cache
1.8	7	MS620-DA 7 ES45 4GB Memory Option
1.9	1	SN-PBXGF-AB 1 3DLabs Oxygen VXI 32MB PCI 2D graphics
2	1	DS-SL13R-AB 1 Modul a M314R single buss, 14x 1.0" Int
2.1	13	3R-A0919-AA 13 36.4GB Uscsi3 10k Universal disk 1"
3	1	DS-SL13R-AB 1 Modul a M314R single buss, 14x 1.0" Int
3.1	13	3R-A0919-AA 13 36.4GB Uscsi3 10k Universal disk 1"
4	1	3R-A2832-AA 1 COMPAQ Monitor S510 15" NH, EU
5	1	BA61R-CR 1 ES45 Rackmount Kit, 3x pwr cords
6	1	BN39C-02 1 1.8 Video Extension Cable ****
7	1	SN-LK047-AF 1 102 KEY KYBD, NON-WIN, Finnish
8	1	BN19C-2E 1 PowerCable 240V, C-Europe
9	2	BN37A-02 2 Ultra Cbl VHDICI - VHDICI



AlphaServer ES45 In H9A15 cabinet

ES45 UNIX

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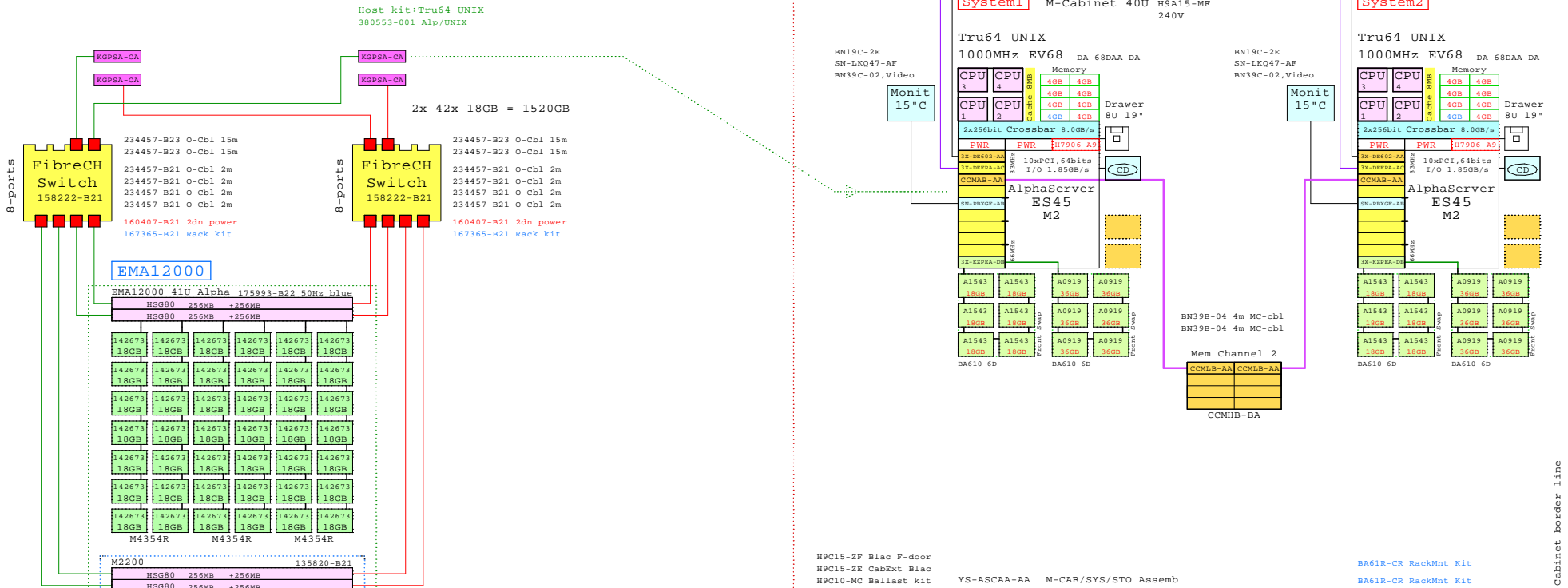
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	Matti.Patari@compaq.com	

AlphaServer ES45 UNIX Cabinet
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ES45 Model 2 TruCluster with external storage

Ethernet
FDDI

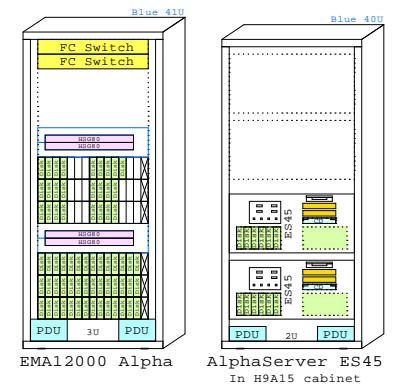


BOM of External Storage

Part Number	Qty	Description
1	1	17593-B27 1 EMA1200 6x4 41U 50Hz blue
1.1	2	128697-B21 2 ACS V8.5F controller FCAL/PCSW
1.2	1	135820-B21 1 Modula M2200 shelf, NO controller
1.2.1	2	128697-B21 2 ACS V8.5F controller FCAL/PCSW
1.2.2	2	135823-B21 2 HSGXX Single external cache battery
1.2.3	6	168256-B21 6 SCSI cable VHD1-VHDC1, 1m
1.2.4	1	176622-B21 1 HSG80 FC Contr with 256MB cache
1.2.4.1	1	380674-B21 1 Cache Upg RABK ESA12K 256MB
1.2.5	1	176622-B21 1 HSG80 FC Contr with 256MB cache
1.2.5.1	1	380674-B21 1 Cache Upg RABK ESA12K 256MB
1.2.6	1	190211-B31 1 Modula M4354R dual buss, 7+7, 1.0"
1.2.6.1	8	18.2GB 10000r Ultra3 SCSI disk 1"
1.2.7	1	190211-B31 1 Modula M4354R dual buss, 7+7, 1.0"
1.2.7.1	8	18.2GB 10000r Ultra3 SCSI disk 1"
1.2.8	1	190211-B31 1 Modula M4354R dual buss, 7+7, 1.0"
1.2.8.1	9	18.2GB 10000r Ultra3 SCSI disk 1"
1.3	1	135823-B21 2 HSGXX Single external cache battery
1.4	1	142673-B22 42 18.2GB 10000r Ultra3 SCSI disk 1"
1.5	1	176622-B21 1 HSG80 FC Contr with 256MB cache
1.5.1	1	380674-B21 1 Cache Upg RABK ESA12K 256MB
1.6	1	176622-B21 1 HSG80 FC Contr with 256MB cache
1.6.1	1	380674-B21 1 Cache Upg RABK ESA12K 256MB
2	1	158222-B21 1 SAN Switch 8 Ports
2.1	6	FC Optical Short Wave GRIC 500
2.1.1	1	158222-B21 1 SAN Switch 8 Ports
2.1.1.1	6	FC Optical Short Wave GRIC 500
3	1	160407-B21 2 SAN switch redundant power supply
4	4	234457-B23 4 Fibre Channel 15m Optical Cable
5	1	167365-B21 2 Rack mount kit for SAN switch
6	1	234457-B21 8 Fibre Channel 02m Optical Cable
7	1	380553-001 1 OS Platf Softw Kit for FC Alpha UNIX
8	4	Host Bus Cntr KPQSA-CA, OVMS, UNIX

BOM of Dual ES45 Cabinet

Part Number	Qty	Description
1	1	H9A15-MP 1 M-Series Cab, H9A15, Black, 240V 40U
1.1	3	3R-A2832-AA 2 COMPAQ Monitor 8510 15" NH, EU
1.2	2	BA61R-CK 2 ES45 Rackmount Kit, 3x pwr cords
1.3	2	BN19C-2E 2 PowerCable 240V, C-Europe
1.4	2	BN39B-04 2 04m copper cbl for CCMB Mem.Chan
1.5	2	BN19C-02 2 1.8 Video Extension Cable ****
1.6	1	CCMHB-BA 1 Hub for Mem.Chan-2 w NO linecards
1.6.1	2	Line Card for CCMHB Mem.Chan-2 Hub
1.7	1	DA-68DAA-DA 1 ES45 68/1000 Model 2 4GB UNIX 10PCI DWR
1.7.1	1	3X-DE602-AA 1 10/100 2xChannel Ethernet, Twisted
1.7.2	1	3X-DEPPA-AC 1 PCI to FDDI SAS MMF with SC Universal
1.7.3	1	3X-KZPBA-DB 1 PCI 2chan SCSI Ultra3 LVD
1.7.4	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.7.4.1	6	18.2GB Uscsi3 15k Universal disk 1"
1.7.5	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.7.5.1	6	18.2GB Uscsi3 10k Universal disk 1"
1.7.6	1	CCMAB-AA 1 PCI Mem. Channel-2 Cluster cntrl
1.7.7	1	H7906-AA 1 ES40 Power Sply, 2nd or 3rd
1.7.8	1	ES45 68/1000MHz UNIX SMP 8mb cache
1.7.9	7	MS620-DA 7 ES45 4GB Memory Option
1.7.10	1	SN-PBXGP-AB 1 3DLabs Oxygen VXi 32MB PCI 2D graphics
1.8	1	DA-68DAA-DA 1 ES45 68/1000 Model 2 4GB UNIX 10PCI DWR
1.8.1	1	3X-DE602-AA 1 10/100 2xChannel Ethernet, Twisted
1.8.2	1	3X-DEPPA-AC 1 PCI to FDDI SAS MMF with SC Universal
1.8.3	1	3X-KZPBA-DB 1 PCI 2chan SCSI Ultra3 LVD
1.8.4	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.8.4.1	6	18.2GB Uscsi3 15k Universal disk 1"
1.8.5	1	ES40 Disk Drive Cage, 6-Bay
1.8.5.1	6	18.2GB Uscsi3 10k Universal disk 1"
1.8.6	1	CCMAB-AA 1 PCI Mem. Channel-2 Cluster cntrl
1.8.7	1	ES40 Power Sply, 2nd or 3rd
1.8.8	1	ES45 68/1000MHz UNIX SMP 8mb cache
1.8.9	7	MS620-DA 7 ES45 4GB Memory Option
1.8.10	1	3DLabs Oxygen VXi 32MB PCI 2D graphics
1.9	1	H9C10-MC 1 Ballast Kit for cabinets
1.10	1	H9C15-ZE 1 Rear cab extender for H9A15 Black
1.11	1	FrontDoor Kit Black for H9A15
1.12	2	SN-LKQ47-AF 2 102 KEY KYBD, NON-WIN, Finnish
1.13	1	Y5-ASCAA-AA 1 M-CAB/SYS/STO Assembly



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Since Oct-2001

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ES45 UNIX
AlphaServer ES45 UNIX Cluster
GOLDEN EGGS Visuals, Helsinki

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ES45 Model 2 Mini Tower System

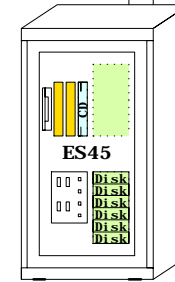
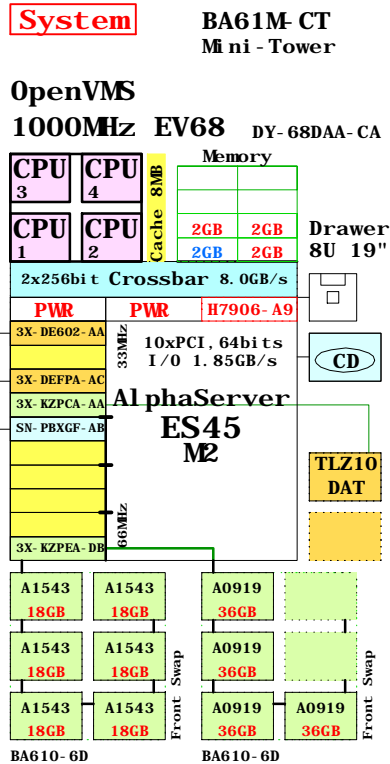
Ethernet

FDDI

BN19C- 2E
LK461- AF
BN39C- 02, Vi deo

Moni t
15" C

BN19C- 2E
BN19C- 2E
BN19C- 2E



AlphaServer ES45
Mini - Tower

Bill of material of this Tower system

	Part Number	Qty	Description
1	BA61M CT	1	ES45 Mini-Tower Enclosure
1.1	3X-BN46M-01	1	SCSI cable for Tape
1.2	BN19C-2E	3	PowerCable 240V, C-Europe
1.3	DY-68DAA-CA	1	ES45 68/1000 Model 2 2GB OVMS 10PCI DWR
1.3.1	3X-DE602-AA	1	10/100 2xChannel Ethernet, Twisted
1.3.2	3X-DEFPA-AC	1	PCI to FDDI SAS MMF with SC, Universal
1.3.3	3X-KZPCA-AA	1	Single channel LVD adapter
1.3.4	3X-KZPEA-DB	1	PCI 2-chan SCSI Ultra3 LVD
1.3.5	BA610-6D	1	ES40 Disk Drive Cage, 6-Bay
1.3.5.1	3R-A1543-AA	6	18.2GB Uscsi3 15k Universal disk 1"
1.3.6	BA610-6D	1	ES40 Disk Drive Cage, 6-Bay
1.3.6.1	3R-A0919-AA	4	36.4GB Uscsi3 10k Universal disk 1"
1.3.7	H7906-A9	1	ES40 Power Sply, 2nd or 3rd
1.3.8	KN610-DC	3	ES45 68/1000MHz OVMS SMP 8mb cache
1.3.9	MS620-CA	3	ES45 2GB Memory Option
1.3.10	SN-PBXGF-AB	1	3DLabs Oxygen VXI 32MB PCI 2D graphics
1.3.11	TLZ10-LB	1	12/24GB 4mm DAT 5.25" HH
2	3R-A2832-AA	1	COMPAQ Monitor S510 15" NH, EU
2.1	BN39C-02	1	1.8 Video Extension Cable ****
3	BN19C-2E	1	PowerCable 240V, C-Europe
4	LK461-AF	1	VMS STYLE KEYBOARD, Fin/Swed

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Since: Sep-2001

COMPAQ

08- Oct- 2001

GTAVES451

Matti.Patari@compaq.com

ES45 OVMS

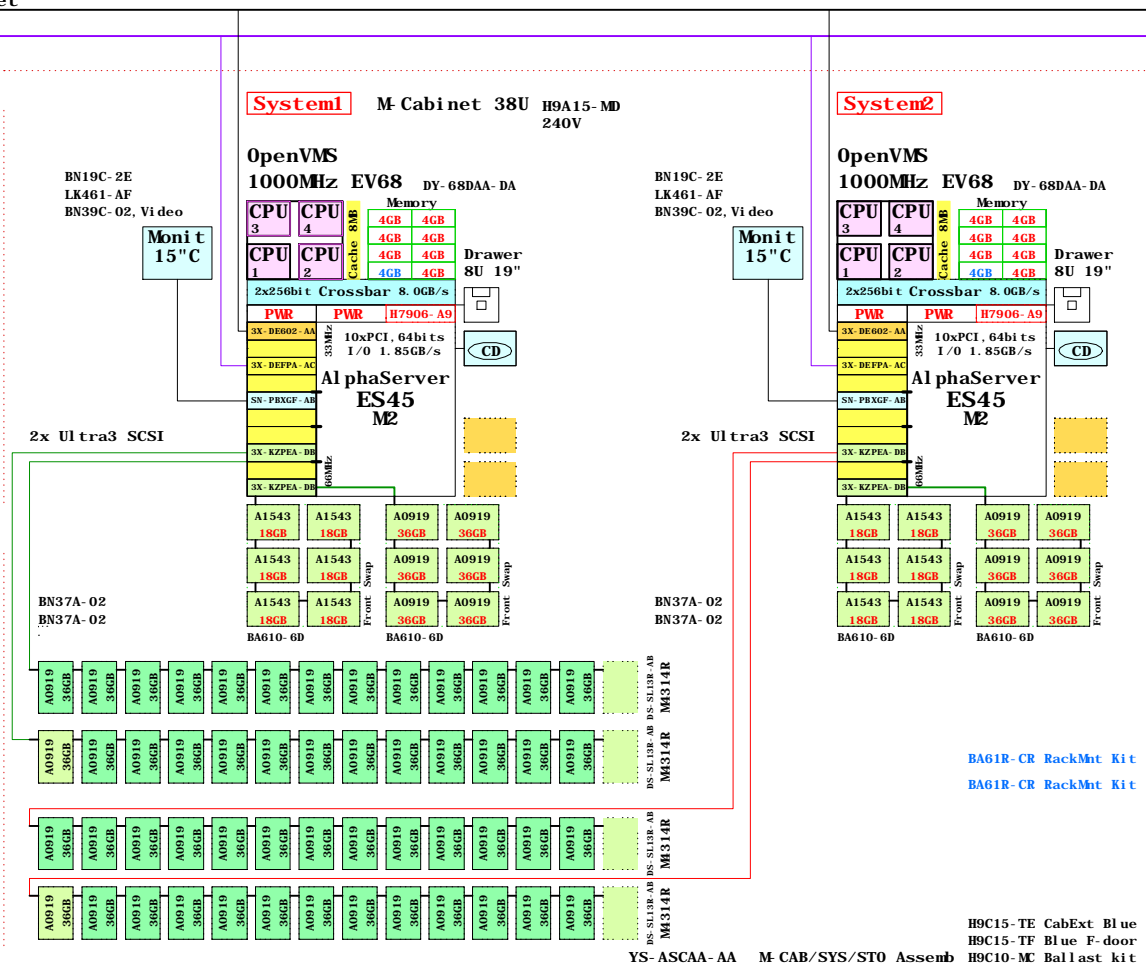
AlphaServer ES45 Mini Tower
GOLDEN EGGS Visuals, Helsinki

This template is included in the present GOLDEN EGGS Software kit.

ES45 Model 2 Systems in Cabinet M15

Ethernet

FDDI

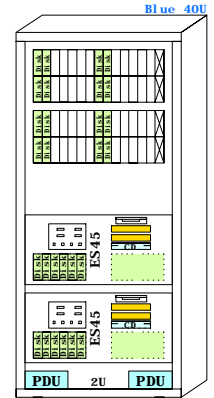


Bill of material for Cabinet and System 1

Part Number	Qty	Description
1	1	H9A15-MD 1 M-Series Cab, H9A15, Blue, 240V 38U
1.1	1	3R-A2832-AA 1 COMPAQ Monitor S510 15" NH, EU
1.2	1	BA61R-CR 1 ES45 Rackmount Kit, 3x pwr cords
1.3	1	BN19C-2E 1 PowerCable 240V, C-Europe
1.4	2	BN37A-02 2 Ultra Cbl VHDCl - VHDCl
1.5	1	BN39C-02 1 1.8 Video Extension Cable ****
1.6	1	DS-SL13R-AB 1 Modula M314R single buss, 14x 1.0" Int
1.6.1	13	3R-A0919-AA 13 36.4GB Uscsi3 10k Universal disk 1"
1.7	1	DS-SL13R-AB 1 Modula M314R single buss, 14x 1.0" Int
1.7.1	13	3R-A0919-AA 13 36.4GB Uscsi3 10k Universal disk 1"
1.8	1	DY-68DAA-DA 1 ES45 68/1000 Model 2 4GB OVMS 10PCI DWR
1.8.1	1	3X-DE602-AA 1 10/100 2xChannel Ethernet, Twisted
1.8.2	1	3X-DEFFPA-AC 1 PCI to FDDI SAS MMF with SC, Universal
1.8.3	2	3X-KZPEA-DB 2 PCI 2-chan SCSI Ultra3 LVD
1.8.4	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.8.4.1	6	3R-A1543-AA 6 18.2GB Uscsi3 15k Universal disk 1"
1.8.5	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.8.5.1	6	3R-A0919-AA 6 36.4GB Uscsi3 10k Universal disk 1"
1.8.6	1	H7906-A9 1 ES40 Power Sply, 2nd or 3rd
1.8.7	3	KN610-DC 3 ES45 68/1000MHz OVMS SMP 8mb cache
1.8.8	7	MS620-DA 7 ES45 4GB Memory Option
1.8.9	1	SN-PBXGF-AB 1 3DLabs Oxygen VXI 32MB PCI 2D graphics
1.9	1	H9C10-MC 1 Ballast Kit for cabinets
1.10	1	H9C15-TE 1 Rear cab extender for H9A15 Blue
1.11	1	H9C15-TF 1 FrontDoorKit Blue for H9A15
1.12	1	LK461-AF 1 VMS STYLE KEYBOARD, Fin/Swed
1.13	1	YS-ASCAA-AA 1 M-CAB/SYS/STO Assembly

Bill of material for System 2

Part Number	Qty	Description
1	1	DY-68DAA-DA 1 ES45 68/1000 Model 2 4GB OVMS 10PCI DWR
1.1	1	3X-DE602-AA 1 10/100 2xChannel Ethernet, Twisted
1.2	1	3X-DEFFPA-AC 1 PCI to FDDI SAS MMF with SC, Universal
1.3	2	3X-KZPEA-DB 2 PCI 2-chan SCSI Ultra3 LVD
1.4	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.4.1	6	3R-A1543-AA 6 18.2GB Uscsi3 15k Universal disk 1"
1.5	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.5.1	6	3R-A0919-AA 6 36.4GB Uscsi3 10k Universal disk 1"
1.6	1	H7906-A9 1 ES40 Power Sply, 2nd or 3rd
1.7	3	KN610-DC 3 ES45 68/1000MHz OVMS SMP 8mb cache
1.8	7	MS620-DA 7 ES45 4GB Memory Option
1.9	1	SN-PBXGF-AB 1 3DLabs Oxygen VXI 32MB PCI 2D graphics
2	1	DS-SL13R-AB 1 Modula M314R single buss, 14x 1.0" Int
2.1	13	3R-A0919-AA 13 36.4GB Uscsi3 10k Universal disk 1"
3	1	DS-SL13R-AB 1 Modula M314R single buss, 14x 1.0" Int
3.1	13	3R-A0919-AA 13 36.4GB Uscsi3 10k Universal disk 1"
4	1	3R-A2832-AA 1 COMPAQ Monitor S510 15" NH, EU
5	1	BA61R-CR 1 ES45 Rackmount Kit, 3x pwr cords
6	1	BN39C-02 1 1.8 Video Extension Cable ****
7	1	BN19C-2E 1 PowerCable 240V, C-Europe
8	2	BN37A-02 2 Ultra Cbl VHDCl - VHDCl
9	1	LK461-AF 1 VMS STYLE KEYBOARD, Fin/Swed



AlphaServer ES45 In H9A15 cabinet

ES45 OVMS

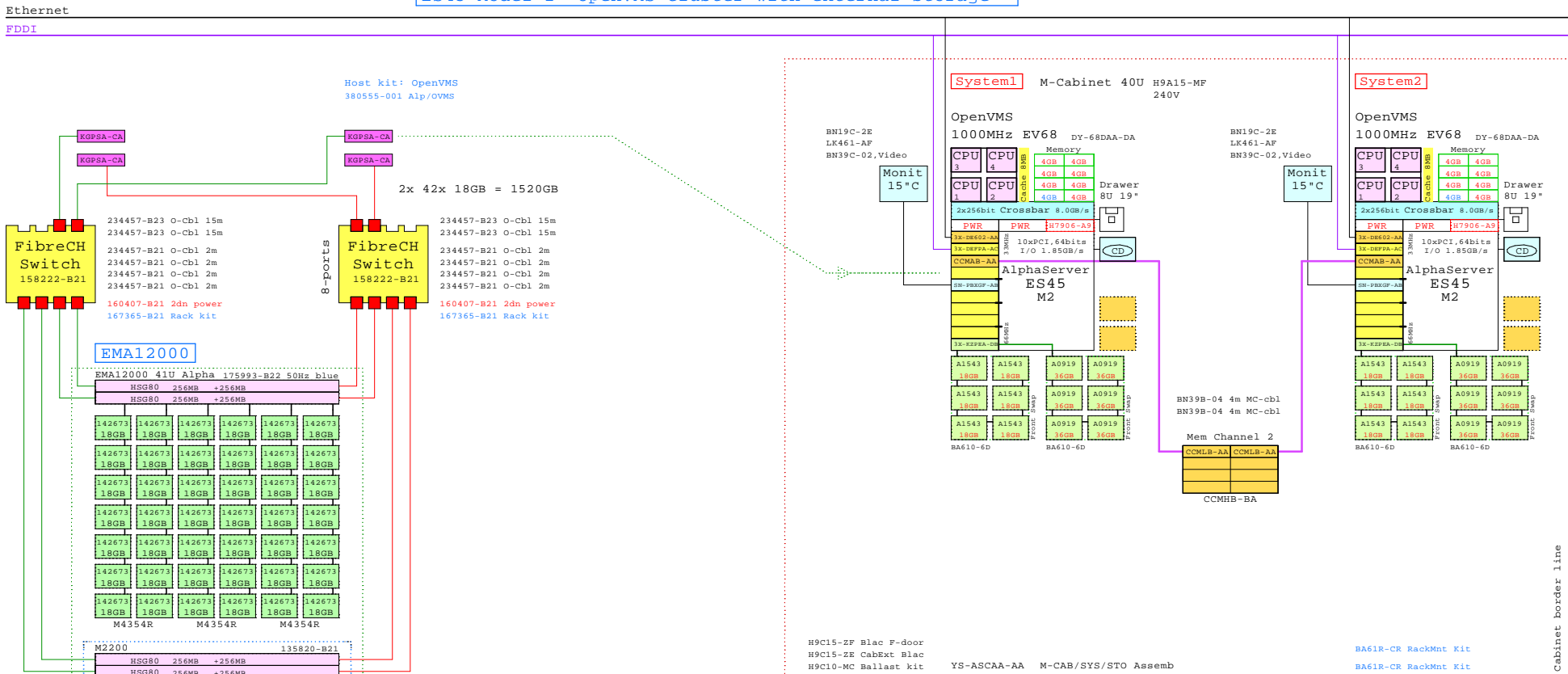
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AlphaServer ES45 OVMS Cabinet
GOLDEN EGGS Visuals, Helsinki

ES45 Model 2 OpenVMS Cluster with external storage

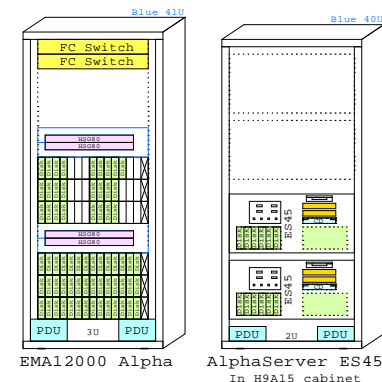


BOM of External Storage

Part Number	Qty	Description
1	1	17593-B27 1 EMA1200 Ext 41U 50Hz blue
1.1	2	128697-B21 2 ACS V8.5F controller FCAL/PCSW
1.2	1	135820-B21 1 Modula M2200 shelf, NO controller
1.2.1	2	128697-B21 2 ACS V8.5F controller FCAL/PCSW
1.2.2	2	135823-B21 2 HSGXX Single external cache battery
1.2.3	6	168256-B21 6 SCSI cable VHDCl-VHDCl, 1m
1.2.4	1	176622-B21 1 HSG80 FC Contr with 256MB cache
1.2.4.1	1	380674-B21 1 Cache Upg RABK ESA12K 256MB
1.2.5	1	176622-B21 1 HSG80 FC Contr with 256MB cache
1.2.5.1	1	380674-B21 1 Cache Upg RABK ESA12K 256MB
1.2.6	1	190211-B31 1 Modula M4354R dual buss, 7+7, 1.0"
1.2.6.1	8	18.2GB 10000r Ultra3 SCSI disk 1"
1.2.7	1	190211-B31 1 Modula M4354R dual buss, 7+7, 1.0"
1.2.7.1	8	18.2GB 10000r Ultra3 SCSI disk 1"
1.2.8	1	190211-B31 1 Modula M4354R dual buss, 7+7, 1.0"
1.2.8.1	9	18.2GB 10000r Ultra3 SCSI disk 1"
1.3	1	135823-B21 2 HSGXX Single external cache battery
1.4	1	142673-B22 42 18.2GB 10000r Ultra3 SCSI disk 1"
1.5	1	176622-B21 1 HSG80 FC Contr with 256MB cache
1.5.1	1	380674-B21 1 Cache Upg RABK ESA12K 256MB
1.6	1	176622-B21 1 HSG80 FC Contr with 256MB cache
1.6.1	1	380674-B21 1 Cache Upg RABK ESA12K 256MB
2	1	158222-B21 1 SAN Switch 8 Ports
2.1	6	380561-B21 6 FC Optical Short Wave GRIC 500
158222-B21	1	1 SAN Switch 8 Ports
3.1	6	380561-B21 6 FC Optical Short Wave GRIC 500
4	2	160407-B21 2 SAN switch redundant power supply
4.1	4	234457-B23 4 Fibre Channel 15m Optical Cable
6	2	167365-B21 2 Rack mount kit for SAN switch
7	8	234457-B21 8 Fibre Channel 02m Optical Cable
8	1	380555-001 1 OS Platf Softw Kit for FC Alpha OVMS
9	4	168794-B21 4 Host Bus Cntr KPQSA-CA,OVMS,UNIX

BOM of Dual ES45 Cabinet

Part Number	Qty	Description
1	1	H9A15-MP 1 M-Series Cab,H9A15,Black,240V 40U
1.1	3	3R-A2832-AA 2 COMPAQ Monitor 8510 15" NH, EU
1.2	2	BA618-CK 2 ES45 Rackmount Kit, 3x pwr cords
1.3	2	BN19C-2E 2 PowerCable 240V, 0-Europe
1.4	2	BN19B-04 2 04m copper cbl for CCMB Mem.Chan
1.5	2	BN19C-02 2 1.8 Video Extension Cable ****
1.6	1	CCMHB-BA 1 HUB for Mem.Chan-2 w NO linecards
1.6.1	2	Line Card for CCMHB Mem.Chan-2 Hub
1.7	1	DY-68DAA-DA 1 ES45 68/1000 Model 2 4GB OVMS 10PCI DWR
1.7.1	1	10/100 2xChannel Ethernet, Twisted
1.7.2	1	3X-DEPPA-AC 1 PCI to FDDI SAS MMF with SC,Universal
1.7.3	1	3X-KZPBA-DB 1 PCI 2chan SCSI Ultra3 LVD
1.7.4	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.7.4.1	6	18.2GB Uscsi3 15k Universal disk 1"
1.7.5	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.7.5.1	6	18.2GB Uscsi3 10k Universal disk 1"
1.7.6	1	CCMAB-AA 1 PCI Mem. Channel-2 Cluster entrl
1.7.7	1	H7906-AA 1 ES40 Power Sply, 2nd or 3rd
1.7.8	1	ES45 68/1000MHz OVMS SMP 8mb cache
1.7.9	7	MS620-DA 7 ES45 4GB Memory Option
1.7.10	1	SN-PBXGP-AB 1 3DLabs Oxygen VXi 32MB PCI 2D graphics
1.8	1	DY-68DAA-DA 1 ES45 68/1000 Model 2 4GB OVMS 10PCI DWR
1.8.1	3	3R-DE602-AA 1 10/100 2xChannel Ethernet, Twisted
1.8.2	1	3X-DEPPA-AC 1 PCI to FDDI SAS MMF with SC,Universal
1.8.3	1	3X-KZPBA-DB 1 PCI 2chan SCSI Ultra3 LVD
1.8.4	1	BA610-6D 1 ES40 Disk Drive Cage, 6-Bay
1.8.4.1	6	18.2GB Uscsi3 15k Universal disk 1"
1.8.5	1	ES40 Disk Drive Cage, 6-Bay
1.8.5.1	6	18.2GB Uscsi3 10k Universal disk 1"
1.8.6	1	CCMAB-AA 1 PCI Mem. Channel-2 Cluster entrl
1.8.7	1	ES40 Power Sply, 2nd or 3rd
1.8.8	1	ES45 68/1000MHz OVMS SMP 8mb cache
1.8.9	7	MS620-DA 7 ES45 4GB Memory Option
1.8.10	1	3DLabs Oxygen VXi 32MB PCI 2D graphics
1.9	1	H9C10-MC 1 Ballast Kit for cabinets
1.10	1	H9C15-ZE 1 Rear cab extender for H9A15 Black
1.11	1	FrontDoorKit Black for H9A15
1.12	2	VMS STYLE KEYBOARD, Pin/Swed
1.13	1	YS-ASCAA-AA 1 M-CAB/SYS/STO Assembly



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AlphaServer ES45 OVMS Cluster
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