HOME

Technical Documentation

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1 HOME - Host Platforms

1.1 HOME Server (from Aug 2022)

Server Specification (Article 550-0035-000)

As a basis for a server-based HOME Cluster install a Dell PowerEdge R350 Server has been specified:

- DELL R350
- Intel XEON E-2374G 3.7G, 8M Cache (min. 4Cores/8Threats)
- min. 32G DDR4@3200 UDIMM
- 480GB SSD SATA
- Dual PSU
- 1U

The following detailed specification applies and is binding:

Amount (#)	Component
1	PowerEdge R350 Server
1	PowerEdge R350 MLK Motherboard
1	Intel Xeon E-2374G 3.7GHz, 8M cache, 4C/8T, turbo (80W), 3200 MT/s
1	iDRAC, Legacy Password
1	iDRAC, Group Manager, Disabled
1	3.5" Chassis with up to 4 Hot Plug Hard Drives
1	Standard Bezel
1	PCIe Riser Config 0, 1x8, 1x16 slots
1	Dell EMC Luggage Tag R350
1	Performance Optimized
1	3200MT/s UDIMMs
2	16GB 3200MT/s DDR4 ECC UDIMM
1	iDrac9, Express

Amount (#)	Component
1	480GB SSD SATA Read Intensive 6Gbps 512 2.5in Hot-plug AG Drive, 3.5in HYB CARR, 1 DWPD
1	PERC H355 Adaptor
1	Heatsink for 80W or less CPU
1	No Internal Optical Drive for x4 and x8 HDD Chassis
2	C13 to C14, PDU Style, 10A, 6.5 Feet (2m), Power Cord
1	Dual Hot Plug Power Suppy (1+1) 600W
1	Trusted Platform Module 2.0 V3
1	Broadcom 5719 Quad Port 1GbE BASE-T Adapter, PCIe Low Profile
1	PCIe Full Height 1 Broadcom 57412 Dual Port 10GbE SFP+ Adapter, PCIe Low Profile
1	On-Board LOM
1	ReadyRails Sliding Rails Without Cable Management Arm
1	No RAID
1	36 Month (12inital+24extension) ProSupport Next Business Day Onsite Service

Older Specifications can be found here:

- HOME - Previous Host Platforms

⚠️   A cluster is formed of 3 (three) servers of the above model.

1.2 Network Interface Specifications

The server as specified above is defined to cover all the bases in terms of network connectivity and customer preference for out-of-band or in-band control, and therefore is shipped with the following network interfaces:

- quad port 1GbE RJ45
- dual port 10GbE SFP+ for connection to media networks

Which SFP modules are supported?

The HOME Dell R340 server spec specifies the Broadcom 57412 Dual Port 10GbE SFP+ NIC. This card supports both SFP+ optical modules and copper direct attach cable, and can run at 10G or 1G. Unlike other adaptors (which are coded only to work with specifically branded SFPs), the Broadcom NIC is specified to work fine with any flavour of SFP or DAC.

Check for available and compatible SFP modules on the DELL website.

Does the HOME server support 1G network connections via copper?

The HOME Dell R340 spec includes a Broadcom 5719 quad port 1GbE BASE-T (RJ45) adaptor. This can be used for connections to management and audio media networks.

1.3 Service Specifications

General Service Issues

HOME servers, *when provided through Lawo*, will come with 12 months plus additional 24 month DELL EMC Pro Support Service packages. The service packages are valid worldwide through regional DELL service teams, which can be identified centrally through the DELL website. Based on the geographic region, slight differences in the service process may apply. For regional detail, please check the support status of your HOME Dell Server at https://www.dell.com/support/ using the EMC service tag number of your machine. In case of issues, please get in contact with DELL PRO SUPPORT directly. A telephone number for your region is available through the DELL Support page. For EMEA, call ✆ +49 (0)69 / 9792 - 2064. Please consider an ownership transfer to straighten regional communication with DELL in case of issues.

Ownership Transfer

When you are getting in touch with the DELL Pro Support, DELL may request you to register as the new owner of the DELL servers. *Please consider an ownership transfer* to straighten communication with DELL. Especially, when servers change their original location (Lawo 's origin is Germany) a ownership transfer is recommended. This ensures that you get direct access to your regional DELL Service and that the support level for the server matches with regional capabilities. After an ownership transfer, you be able to perform service enhancements affecting your machine(s), such as purchasing iDrac licenses. Ownership transfers can be initiated between you and DELL directly. A detailed guide can be found here: https://www.dell.com/support/kbdoc/en-uk/000125103/ownership-transfer-and-dell-product-registration-guides. Please use Lawo's headquarter address in Germany as detail of the current owner.

Hardware Upgrades

In case you need to upgrade the hardware of your host machine, e.g. with additional memory, or larger harddisk, we urgently recommend to initiate a ownership transfer before.

1.4 HOME - Previous Host Platforms

HOME Server (Apr 2021-Aug 2022)

Server Specification (Article 550-0033-000)

As a basis for a server-based HOME install a Dell PowerEdge R340 Server has been specified:

- DELL R340
- Intel XEON E-2244G 3.8G, 8M Cache (min. 4Cores/8Threats, min 3.8G)
- min. 32G DDR4@2666 UDIM
- 480GB SSD SATA
- Dual PSU
- 1U

The following detailed specification applies and is binding:

Amount (#)	Component
1	PowerEdge R340 Server
1	PowerEdge R340 MLK Motherboard
1	Intel Xeon E-2244G 3.8GHz, 8M cache, 4C/8T, turbo (71W)
1	iDRAC,Legacy Password
1	iDRAC Group Manager, Disabled
1	3.5" Chassis with up to 4 Hot Plug Hard Drives
1	Standard Bezel
1	PCIe Riser, 1x FH x8 PCIe Gen3 slot, 1x LP x4 PCIe Gen3 slot, R240/R340
1	Dell EMC Luggage Tag
1	Performance Optimized
1	2666MT/s UDIMMs
2	16GB 2666MT/s DDR4 ECC UDIMM
1	iDrac9, Express
1	480GB SSD SATA Read Intensive 6Gbps 512 2.5in Hot-plug AG Drive,3.5in HYB CARR, 1 DWPD, 876 TBW
1	PERC H330 RAID Controller 1 Heatsink for 80W or less CPU
1	No Internal Optical Drive for x4 and x8 HDD Chassis
2	C13 to C14, PDU Style, 10 AMP, 6.5 Feet (2m), Power Cord

Amount (#)	Component
1	Dual Hot Plug Power Supplies 350W
1	Trusted Platform Module 1.2
1	PowerEdge R340 CE,CCC,BIS Marking
1	Broadcom 5719 Quad Port 1GbE BASE-T Adapter
1	PCIe Full Height 1 Broadcom 57412 Dual Port 10GbE SFP+ Adapter
1	PCIe Low Profile 1 On-Board LOM
1	ReadyRails Sliding Rails Without Cable Management Arm
1	No RAID

⚠ A cluster is formed of 3 (three) servers of the above model.

2 HOME - IT Specifications

The following abstracts summarize IT related specifications around HOME. You may refer to them when it comes to preparing your network for operating HOME.

2.1 Services and Default Ports

The port numbers below normally will not require any changes, however, there are situations where the port numbers below are already in use for example if you are running your own dhcp server.

> ⓘ **Note:** The ports for etcd can only be set once - during the initial installation. If the ports for etcd require changing then a manual procedure must be followed.

List of Default Ports

HOME V2.0 OR HIGHER

```
# Internal Ports - etcd
# NOTE: CHANGES TO ETCD PORTS BELOW ONLY AFFECT THE FIRST/INITAL INSTALLATION
#       POST INSTALLATION CHANGES TO PORTS REQUIRE MANUAL INTERVENTION
node_one_etcd_client_port: 1379
node_two_etcd_client_port: 2379
node_three_etcd_client_port: 3379
node_one_etcd_peer_port: 1380
node_two_etcd_peer_port: 2380
node_three_etcd_peer_port: 3380
# External Ports - Debug CLIs
configservice_debug_port: 9040
dhcp_debug_port: 9042
disco_debug_port: 9043
guardian_debug_port: 9092
hdcore_ravenna_proxy_debug_port: 9050
lcu_ember_client_debug_port: 9052
mike_debug_port: 9051
nova_router_proxy_debug_port: 9049
powercoreproxy_debug_port: 9048
prelude_debug_port: 9094
radius_debug_port: 9041
sentinel_debug_port: 9098
splice_debug_port: 9090
switchservice_debug_port: 9044
thirdpartyproxy_debug_port: 9047
nmos_import_debug_port: 9045
nmos_export_debug_port: 9054
umpire_debug_port: 9046
aegis_debug_port:  9053
qsc_debug_port: 9055
# External Ports - Home Provided Services
node_one_nats_port: 4222
node_two_nats_port: 4222
node_three_nats_port: 4222
home_ui_port: 5000
bifrost_port: 5100
```

dns_server_port: 53
dhcp_server_port: 67
radius_auth_port: 1812
radius_acct_port: 1813
portainer_api_port: 8000
portainer_ui_port: 9200
prometheus_port: 9100
stash_port: 8085
nmos_export_startrange: 45000

2.2 Concurring Applications