# High Speed Net Connect (HNC)
# Version 6.6A
# October 2024

# Release Notice

**1 General information** **3**
1.1 Ordering 3
1.2 Delivery 3
1.3 Documentation 3
**2 Software extensions** **5**
**3 Technical information** **6**
3.1 Resource requirements 6
3.2 SW configuration 7
3.3 Product installation 7
3.4 Product use 7
3.5 Obsolete (and discontinued) functions 8
3.6 Incompatibilities 8
3.7 Restrictions 8
3.8 Procedure in the event of errors 9
**4 Hardware requirements** **10**
**5 Firmware versions** **11**

# 1 General information

This Release Notice is a summary of the major extensions, requirements, and operating information for HNC V6.6A in Fujitsu BS2000 SE740, SE730(B) und SE710.

**The contents correspond to the release level of October 2024.**

The current release corresponds to the following delivery releases:

| | |
|---|---|
| HNC V6.6A0106 | Release 2024-09 |

The Release Notice is shipped on the docu CD

The information in the Release Notices for the following delivery units should also be noted:

- M2000 V6.6A
- BS2000 OS DX V1.0B
- VM2000 V12.0B

This and other current Release Notices are available online:
https://bs2manuals.ts.fujitsu.com/.

If one or more previous upgrades are skipped when this product version is used, then the information from the Release Notices (and README files) for these previous versions must also be taken into account.

## 1.1 Ordering

The HNC V6.6A software is supplied preinstalled on the HNC (as part of SE server with SU /390 or ordered individually) and cannot be ordered separately.

## 1.2 Delivery

The HNC software is a component of an SE server with SU /390. It is pre-installed on the HNC on delivery or installed by Fujitsu service engineers on HNC that have already been delivered.

The software files for HNC V6.6A are delivered in line with the hardware delivery as DVD media. The MAC addresses required for the HNC are supplied on the license CD.

## 1.3 Documentation

The documentation for the SE servers comprises the following components:

- SE-specific manuals that describe the concepts and operation of servers in the SE line.
  - Fujitsu Server BS2000 SE Series Operation and Administration
  - Fujitsu Server BS2000 SE Series Quick Start Guide
  - Fujitsu Server BS2000 SE Series Security Manual

- White Paper
  - Fujitsu Server BS2000 SE Series Cluster solutions for SE servers

- Operating Manual SE server comprising of several modules
  - Fujitsu Server BS2000 SE Series basic operating manual
  - Fujitsu Server BS2000 SE Series operating manual server unit /390
  - Fujitsu Server BS2000 SE Series operating manual server unit x86
  - Fujitsu Server BS2000 SE Series operating manual additive components

These manuals are included on the documentary DVD of the supplied media set.

The documentation is also available on the internet at https://bs2manuals.ts.fujitsu.com/ There you will find both individual manuals and (under the "Softbooks" tab) the ISO image of a DVD with the entire inventory.

The current versions of this and other Release Notices are also available there.

The corresponding HW documentation is required in order to use the HW peripheral devices.

# 2 Software extensions

HNC V6.6A is the further development of the existing HNC version V6.5A SP2 and offers the following extensions and enhancements over the previous version:

- **Rebasing on SLES 15 SP5**
  The basic system of the Linux appliance HNC was rebased on SUSE Linux Enterprise Server 15 SP5

- **New server line SE730**
  The new server line SE740 is supported with new HW base for Server Unit (SU740), Management Unit (MU M6), HNC (HNC M6) and NetUnit (Juniper EX3400-48T).

  Highlights of the SU740:
  - 64 Gbit/s connectivity FC modules
  - Up to 126 channels
  - Up to 4-path connection of the HNCs

# 3 Technical information

## 3.1 Resource requirements

Two disks, which occupy slots 0 and 1, are required for the installation of the system. These are switched together to form a hardware mirror, on which five virtual disks are configured. The SW mirror function enables a system status to be frozen and then to be activated by Service after software errors.

**SE SERVER HNC M3:**

| VD | HNC | Use |
|---|---|---|
| VD0 | 80 GB | ROOT, VAR, SWAP |
| VD1 | 80 GB | ROOT (Installation), CRASH |
| VD2 | 80 GB | ROOT-Standby, VAR-Standby, ARCHIVE |
| VD3 | 140 GB | DATA |
| VD4 | 30 GB | Configuration Raw Device (CRD) |

An SE HNC M3 is equipped in its basic configuration with a 32 GB memory (2* 16GB DDR4 modules).

**SE SERVER HNC M4:**

| VD | HNC | Use |
|---|---|---|
| VD0 | 100 GB | ROOT, VAR, LOG |
| VD1 | 100 GB | ROOT, VAR, LOG (Standby) |
| VD2 | 300 GB | Configuration Raw Device (CRD), ARCHIVE, HOME, DATA |
| VD3 | 300 GB | CRASH, DIAG, SWAP |

An SE HNC M4 is equipped in its basic configuration with a 64 GB memory (4* 16GB DDR4 modules).

**SE SERVER HNC M5:**

| VD | HNC | Use |
|---|---|---|
| VD0 | 100 GB | ROOT, VAR, LOG |
| VD1 | 100 GB | ROOT, VAR, LOG (Standby) |
| VD2 | 300 GB | Configuration Raw Device (CRD), ARCHIVE, HOME, DATA |
| VD3 | 300 GB | CRASH, DIAG, SWAP |

An SE HNC M5 is equipped in its basic configuration with a 64 GB memory (4* 16GB DDR5 modules).

**SE SERVER HNC M6:**

| VD | HNC | Use |
|---|---|---|
| VD0 | 100 GB | ROOT, VAR, LOG |
| VD1 | 100 GB | ROOT, VAR, LOG (Standby) |
| VD2 | 300 GB | Configuration Raw Device (CRD), ARCHIVE, HOME, DATA |
| VD3 | 300 GB | CRASH, DIAG, SWAP |

An SE HNC M6 is equipped in its basic configuration with a 64 GB memory (2* 32GB DDR5 modules).

## 3.2 SW configuration

**BS2000 system versions in Native and VM2000 operation on /390**

- BS2000 native
  - BS2000 OS DX V1.0B
- VM2000 V12.0B
  - BS2000 OS DX V1.0B as a monitor system or a guest system
- Precondition for Live Migration (LM on SU /390 only possible in VM2000 mode):
  - BS2000 OS DX V1.0B
  - VM2000 V12.0B

The support for BS2000 OS DX V1.0B is supplied for SE740 as of service pack SP24.1 and for SE710 und SE730(B) as of SP23.2.

In BS2000, the REPs for A0618386 and A0618389 must also be installed on SU740. These REPs are integrated in service pack SP24.2 and do not need to be imported separately.

**Linux is not released for use on HNC**
The Linux appliance HNC is a scaled-down Linux system. Therefore, the use of Linux on HNC is not released for customer applications.

## 3.3 Product installation

With delivery of the Server Unit / 390 1-4 HNCs become part of the Net-Unit delivered pre-installed. Any required new correction levels for the HNC are supplied as part of the hardware service contract and are installed by the service technician responsible for you.

## 3.4 Product use

- **HNCs are operated via the SE Manager**,
  a web-based graphical user interface for managing the SE servers. Local access is possible via a web browser running in the M2000 on the rack console integrated in the SE rack.

  Remote operation and administration take place via PC workstations that can access the SE Manager via a web browser. The Release Notice for M2000 V6.6A contains information about supported browsers.

- **Administration commands in HNC at shell level**
  For the administration ID admin, access to the HNC shell can be activated from the Service. Shell access from the customer network can only take place via a connection to the management unit (preferably via PuTTY).
  The command “ssh –l admin hnc <nr> -se <ID> .senet” can then be used to switch to the HNC shell with the predefined ID “admin”

  **(**Example: The change to the first HNC in the SE server with ID 1 is done by using "ssh -l admin hnc1-se1.senet").

  The “cli_info” command outputs a list of the available commands.
  If necessary, the Service provides a detailed description of the available commands.

  The use of PuTTY is described in the manual "Fujitsu Server BS2000 SE Series Operation and Administration".

- **Setting the BS2000 host name**
  The BS2000 host name must contain at least four characters. In principle, the following special characters are supported: **#, @**
  The use of special characters should be avoided where possible.

- **Connecting the net unit to the customer LAN**
  Customers should not configure a spanning tree protocol on the LAN switch for uplink ports in public networks (MANPU, MONPU, DANPU<nn>).

- **Connecting the HNC to the SE server**
  Only FC (FibreChannel) direct connections with 16 Gbit/s are supported for the connection to the /390 server units. The default connection is via a single path.

## 3.5 Obsolete (and discontinued) functions

In case of software updates, a distinction is no longer made between security fixes and hot fixes. Fixes are provided as an update.

## 3.6 Incompatibilities

- None -

## 3.7 Restrictions

- The topology for the SE SERVER HNC M6 is currently not displayed correctly in SEM. The OCP2 boards are not displayed (page Hardware -> IP Network -> Topology)

- The manuals for V6.6A will be made available later. The new functions are described in the online help.

## 3.8 Procedure in the event of errors

In successfully diagnose and eliminate software problems, sufficient error documentation must be created and saved as early as possible.

If possible, error report documents should be supplied in the form of files so that they can be processed with diagnostic tools. Reproducible errors are to be described accurately so that the error can be generated.

**SEM:**
If an error situation occurs, the generation of diagnostic data can be initiated by the administrator or operator via the SE Manager on the Management Unit by way of the "Diagnostics" tab in menu Service -> Units (SEnnn) -> <Name> (HNC) -> Diagnostics.

The diagnostic data file is a compressed tar archive and contains important logging, trace, and configuration files of the unit. The administrator may download the diagnostic data archive to his PC and send it by e-mail, or the file can be transferred directly from the service via AISConnect via FileTransfer.

In the case of problems that are visible in the SE Manager, the following diagnostic documents should also be prepared depending on the situation:

- meaningful screenshots
- relevant browser console output (copies or screen dumps)

Refer to the release note for M2000 V6.6A for more information on creating diagnostic data.

**BS2000:**

- SLED (in case of BS2000 system crash or if the BS2000 system locks up)
- for input/output problems or device error messages HERSFILE and possibly IOTRACE

# 4 Hardware requirements

HNC V6.6A is an integral part of the net unit of a BS2000 SE Server.

The software version HNC V6.6A0106 is used on the following hardware models:

SE SERVER HNC M3
SE SERVER HNC M4
SE SERVER HNC M5
SE SERVER HNC M6

# 5 Firmware versions

The following minimum firmware levels should be used on HNC. They are installed during system installation in the factory. Any new firmware levels that may be required are provided as part of the hardware service contract and installed by the service technician responsible for you.

| **SE SERVER HNC M3 (RX2530-M5)** | **FW-Version** |
|---|---|
| | |
| BIOS (D3383-B1x) | V5.0.0.14 - R1.40.0 |
| iRMC S5 | 03.57P_SDR03.31 |
| | |
| SAS RAID Ctrl PRAID EP420i | 4.680.00-8561 |
| SAS RAID Ctrl PRAID EP540i | 5.230.00-3817 |
| | |
| Fibre Channel LPe31002 | 14.0.639.18 |
| LAN PLAN EP X710-DA4 4x10Gb SFP+ | 9.30 |
| LAN PLAN EP X710-T4 4x10GBASE-T | 9.30 |

| **SE SERVER HNC M4 (RX2530-M6)** | **FW-Version** |
|---|---|
| | |
| BIOS (D3890-A1x) | V1.0.0.0 - R1.26.0 |
| iRMC S5 | 03.57P_SDR03.47 |
| | |
| SAS RAID Ctrl PRAID EP680i | 5.260.02-3921 |
| | |
| Fibre Channel LPe31002 | 14.0.639.18 |
| LAN-Contr. PLAN EP X710-DA4 4x10Gb SFP+ | 9.30 |
| LAN-Contr. PLAN EP X710-T4 4x10GBASE-T | 9.30 |

| **SE SERVER HNC M5 (RX2530-M7)** | **FW-Version** |
|---|---|
| | |
| BIOS (D3982-A1x) | V1.0.0.0 - R2.4.0 |
| iRMC S6 | 02.36S_SDR03.78 |
| | |
| SAS RAID Ctrl PRAID EP640i | 5.260.02-3921 |
| | |
| Fibre Channel LPe31002 | 14.0.639.18 |
| LAN PLAN EP X710-DA4 4x10Gb SFP+ | 9.30 |
| LAN PLAN EP X710-T4 4x10GBASE-T | 9.30 |

| **SE SERVER HNC M6 (RX2530-M7)** | **FW-Version** |
|---|---|
| | |
| BIOS (D3982-A1x) | V1.0.0.0 - R2.4.0 |
| iRMC S6 | 02.36S_SDR03.78 |
| | |
| SAS RAID Ctrl PRAID EP680i | 5.260.02-3921 |
| | |
| Fibre Channel LPe31002 | 14.0.639.18 |
| LAN PLAN EP X710-DA4 4x10Gb SFP+ | 9.30 |
| LAN PLAN EP X710-T4 4x10GBASE-T | 9.30 |
| LAN PLAN EP E810-XXVDA2 / -XXVDA4 (25Gb SFP+) | 4.30 |