

FUJITSU Software BS2000 M2000

Version 6.0A
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Release Notice

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1 General information

This Release Notice is a summary of the major extensions, dependencies and operating information about the delivery components of the FUJITSU software BS2000 M2000 V6.0A.

M2000 is running on the Management Unit (MU) which is integrated in the rack of the FUJITSU Servers BS2000 SE700, SE500 and SE300. It is used for administration, monitoring and operating of all components of the SE Server.

The contents correspond to the release level of June 2015.

The current release corresponds to the following first delivery releases:

M2000 V6.0A0803	Release 06.2015
StorMan V6.0.0-11	Release 06.2015

The following Release Notices must also be taken into consideration for M2000 V6.0A:

- StorMan 6.0
- HNC V6.0A (if /390 Server Units are used)
- X2000 6.0A (if x86 Server Units are used)
- ROBAR V7.0 (optional)
- openSM2 V10.0 (optional)
- openUTM V6.3 (optional)

This and other current Release Notices are on the SoftBooks DVD and are also available online: <http://manuals.ts.fujitsu.com/mainframes.html>.

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 software M2000 V6.0A is supplied preinstalled on the Management Unit as a component of the SE Server hardware and cannot be ordered separately.

1.2 Delivery

M2000 V6.0A is part of the basic operating software for BS2000 SE Servers and is supplied pre-installed on the Management Unit (MU).

The M2000 V6.0A files are delivered in line with the hardware delivery as DVD media.

1.3 Documentation

The following manuals are part of the SE server documentation:

- Operating Manual SE700 / SE500 / SE300 (comprising of several modules)
 - FUJITSU Server BS2000 SE700 / SE500 / SE300 Basic Operating Manual
 - FUJITSU Server BS2000 SE700 / SE500 / SE300 Server Unit x86
 - FUJITSU Server BS2000 SE700 / SE500 Server Unit /390
 - FUJITSU Server BS2000 SE700 / SE500 / SE300 Additive Components
- FUJITSU Server BS2000 SE700 / SE500 / SE300 Operation and Administration
- FUJITSU Server BS2000 SE700 / SE500 / SE300 Security Manual

The manual "FUJITSU Server BS2000 SE700 / SE500 / SE300 Quick Start Guide" will be released in the 3rd quarter of 2015.

The documentation is also available on the internet under:

<http://manuals.ts.fujitsu.com>.

Manuals displayed with an order number can be ordered as printed versions.

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

<http://manuals.ts.fujitsu.com>.

The BS2000 documentation is available on DVD, in German and English, under the title BS2000 SoftBooks.

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

2 Software extensions

M2000 V6.0A is a further development of the SQ-Manager which is used on the MARS and Server Unit of the SQ-Servers, extended by the integration of the SKP-Manager used on S-servers.

M2000 V6.0A is used solely on the Management Unit of a SE Server and offers the following fundamental innovations and enhancements:

- Support of the BS2000 SE Server
- SE Manager als the central web based GUI
The SE Manager presents a web based operation- and administration user interface for BS2000 SE Servers. It offers a central management for Server Units (/390 und x86), Application Units (x86) and Net Units (including HNC) as well as storage systems.
- Integration of the following add-ons
 - StorMan
 - openSM2 (optional)
 - ROBAR (optional)
 - openUTM (optional)
- Integration of the SKP functionality in order to support /390 Server Units.
- Redundant SKP functionality via a redundant Management Unit (optional).
- The connection to BS200 console, BS2000 dialog and SVP-console can be established via the SE Manager as well as via shell using PuTTY. The commands bs2Console, bs2Dialog and svpConsole are available for this purpose.
- Support of Application Units x86 including remote service processing and displaying of status information of all units and virtual machines. The following operating systems and hypervisors are supported to run on Application Units x86:
 - SUSE Linux Enterprise Server 11
 - Red Hat Enterprise Linux 6, 7
 - Microsoft Windows Server 2008 R2, 2012 and 2012 R2
 - VMware vSphere® ESXi 5.x
 - Microsoft Windows Hyper-V Server 2012 R2Additional operating systems and virtualization products can be qualified for Application Units x86 on request (special release).
- A new conception of the internal IP network architecture (Net Unit).
The Net Unit (NU) provides the connection between the units of the SE Server and the connection to the customer network. The MU consists of LAN-switches and realizes the networks which are necessary for SE Server to operate. The network interconnection with the customer LAN is done via uplinks in the switches.
The basic configuration of the Net Unit is built up during system installation in the factory.
SE Servers with /390 Server Units (SE Server SE500 and SE700) are shipped with a HNC (High-Speed Network Connect) as Net Unit component.
- Scheduled power on/off for Management Unit, Server Unit x86, HNC and Application Unit.

3 Technical information

3.1 Resource requirements

M2000 is installed on the internal mirrored disks of the MU, which have a preset partitioning.

For SE Servers with a redundant Management Unit a disk/LUN with a capacity of at least 8 GB must be available as external CRD (Configuration Raw Device).

3.2 Software configuration

- BS2000:
 - OSD/XC V10.0
 - OSD/XC V9.5
 - OSD/XC V8.5 (VM2000 guest system only)
- VM2000 V11.0, V10.0 (in VM2000 V10.0 the new SE Server specific functionality is not available)
- HNC V6.0 (if /390 Server Units are used)
- X2000 V6.0 (if x86 Server Units are used)
- Add-on software:
 - StorMan V6.0
 - ROBAR V7.0
 - openSM2 V10.0
 - openUTM V6.3

Linux is not released for use on M2000

The Linux appliance M2000 is a scaled-down Linux system exclusively designed to run on the Management Unit of a SE Server. This is why the use of Linux on M2000 is not released for customer applications.

3.3 Product installation

The SE Server is delivered with M2000 preinstalled. Any required new correction levels for M2000 that may be required are supplied as part of the hardware service contract and are installed by the service technician responsible for you.

3.4 Product use

SE Manager

Operation takes place via a web-based graphic user interface called SE Manager. Local access is possible via a web browser that is started in M2000 on the rack console integrated in the SE rack.

Remote operation and administration takes place via PC workplaces that can access the SE Manager via a web browser.

To ensure that all SE Manager functions can be used, an up-to-date internet browser is required.

- Supported browsers:
 - Microsoft Internet Explorer as of version 10 (with or without compatibility mode)
 - Mozilla Firefox as of version 17.0 ESR
- Tolerated browsers:
 - Internet Explorer 8 & 9The following restrictions do apply:
 - Uploads and downloads are not supported.
 - XenVM-consoles are not supported.
 - Some tables and other objects are not displayed in an optimal way.
 - No graphical view of the rack.
- Browser settings:
 - JavaScript is permitted.
 - Cookies are permitted.
 - If you intend to open a large number of BS2000 console windows or dialog windows simultaneously, the maximum number of server connections must be configured accordingly.

REWAS as subsystem in BS2000 for BS2000 functionality in the SE Manager

The subsystem REWAS realizes the BS2000 specific functions for Server Units /390 in the SE Manager. For this purpose the subsystem REWAS must be running on each BS2000 system. If due to an error situation this is not the case, the SE Manager's functionality concerning BS2000 is restricted as follows:

- On a VM2000 monitor system without REWAS being running no administration of BS2000-VMs is possible. Only limited status information is displayed.
- On a BS2000-VM or in BS2000 native operation mode without REWAS being running, the hostname is not displayed.

BS2000 operating using the Linux shell

The commands `bs2Console`, `bs2Dialog` und `svpConsole` are available in the shell of the Management Unit. If called with suitable parameters these commands open the corresponding terminal instances at the specified Server Unit.

We recommend to use the ssh-client PuTTY for accessing the Management Unit. You may use PuTTY as of version 0.63.

If you use a different tool the functionality of `bs2Console`, `bs2Dialog` and `svpConsole` cannot be guaranteed.

CLI for operators

For operator accounts the connection to BS2000 console, BS2000 dialog and SVP console is possible. For this purpose the commands bs2Console, bs2Dialog and svpConsole are intended to be executed as "remote command" in PuTTY.

Special note in case of operating a redundant MU

With the optional second MU a redundant SKP functionality is available. The redundancy mainly includes the following functions:

- SVP operating
- SVP state requests (system state, power status, operation mode, ...)
- Operating of the BS2000 systems and administration of the BS2000 devices.

An automatic data replication between the MUs is not provided for all function areas of the SE Manager. The characteristics which have to be taken into account are described in the manual

FUJITSU Server BS2000 SE700 / SE500 / SE300 Operation and Administration, chapter „ Architecture and concepts“, section „Redundant Management Units“.

3.5 Obsolete (and discontinued) functions

Teleservice:

- Modem Teleservice is not supported anymore. Remote service will be offered via AIS only.

3.6 Incompatibilities

Incompatibilities compared to SKP on S-server

SKP-Manager is replaced by SE Manager

- Due to the integration of the SKP-Manager used on S-servers in the central web-based GUI SE Manager the primary and secondary navigation structure has been changed.
- The browser versions supported by SE Manager are not the same as the ones supported by the SKP-Manager (see chapter 3.4).
- The Java runtime environment (JRE) is not required anymore at client site.

KVP

- The configuration of the KVP logging (maximum number and size of the logfiles) cannot be changed.

Terminal emulations

- There are terminal emulations for BS2000 console, BS2000 dialog and SVP console embedded in the SE Manager each with a virtual keyboard which can be activated via an icon.

SKP redundancy (optional)

- When opening a SVP console at the passive MU, the console connection will be redirected to the active MU (which runs as an active SVP instance). Therefore an active SVP console can be opened at the passive MU.
- Switching over the active unit (manually via the SE Manager or automatically due to a failure) does not imply a reconnect of a console which has been opened via redirection. The SVP console has then to be closed and reopened via the SE Manager in order to get an active SVP console again.

user concept

- The account „admin“ is available as default account for the administrator role (instead of „sysadmin“).
- There is no default account for the operator role. The account “sysopr” is not defined.
- No separate accounts are required to connect to a BS2000 console, BS2000 dialog or SVP console. Therefore the accounts cons0, cons1, em9750 und svpst0 are not supported anymore.

Shell access

- Shell access is offered for the role administrator only. The shell can be accessed from external solely at the Management Unit.
- No shell access is allowed for the role operator. The commands bs2Console, bs2Dialog and svpConsole can be executed as “remote command” in PuTTY however. In doing so the individual rights will be verified (see section “BS2000 operating using the Linux shell” in chapter 3.4).

CLI for the role administrator

- The commands auditLog, init, onoff, svp and skp_state are obsolete because appropriate functions are available at the GUI.
- The command teleadm is obsolete because the telemodem connection is not offered for the server line SE Server.
- For the connection to a BS2000 console, BS2000 dialog or SVP console the following commands are available: bs2Console, bs2Dialog, svpConsole.

Incompatibilities compared to SQ-Manager on SQ-Server’s MARS/X2000**SQ-Manager is replaced by SE Manager**

- Due to the consolidation of the SQ-Manager used on MARS and on the Server Unit of the Sq-Server into the central web-based GUI SE Manager the primary and secondary navigation structure has been changed
- The browser versions supported by SE Manager are not the same as the ones supported by the MARS (see chapter 3.4).
- The Java runtime environment (JRE) is not required anymore at client site.

KVP

- The configuration of the KVP logging (maximum number and size of the logfiles) cannot be changed.

Terminal-Emulationen

- There are terminal emulations for BS2000 console, BS2000 dialog and SVP console embedded in the SE Manager each with a virtual keyboard which can be activated via an icon. Function key buttons are not offered in the BS2000 terminal window anymore.
- The connection is established under the active session without additional password request.

user concept

- The account „admin“ is available as default account for the administrator role (instead of „sysadmin“).
- There is no default account for the operator role and the role XenVM administrator. The accounts “sysopr” and “sysxadm” are not defined.
- The BS2000 console and dialog accounts (cons0, ...,em9750) are not supported anymore.

CLI for the role administrator

- The command eventLog is obsolete because appropriate functions are available at the GUI.
- The command teleadm is obsolete because the teledem connection is not offered for the server line SE Server

BS2000 devices

- Server Unit x86:
 - Pubsets are not displayed separately anymore. This information has been merged to the display of BS2000 disks.
- Devices at Management Unit and HNC:
 - A BS2000 MN must be specified when defining a device
 - The BS2000-MN cannot be changed.

XenVMs

- There are only local installation sources supported. The SE Manager supports the uploading of installation sources (ISO images) instead.

3.7 Restrictions

- LDAP accounts are not supported at present.
- The function Audit Logging is currently incomplete and will be released at a later date.
- The function for the remote activation of the Server Unit /390 like it was offered as an option for SKP is not supported at present for the Management Unit.

3.8 Procedure in the event of errors

General instructions for creating documents

For successful diagnostics and elimination of software problems, sufficient error documentation must be created or saved as soon as possible.

If possible, error report documentation should be supplied in the form of files so that it can be analyzed with diagnostic tools. For reproducible errors the user should include detailed information on how to generate the error condition.

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.

Hardware -> Server (SE<model>) -> <Name> (MU) -> Service -> Diagnostics

Your service technician is responsible for uploading the diagnostic archive.

If errors occur in the SE Manager, hard copies should be made of the screen.

4 Hardware requirements

M2000 V6.0A is intended to be installed on Management Units of the BS2000 SE Servers solely.

5 Firmware levels

The following minimum firmware levels should be used on the Management Unit. 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 MU	FW-Version
BIOS	R1.9.0
iRMC	7.82F
SAS RAID Ctrl SAS 6G 5/6 512MB (D2616)	2.130.353-2727
Fibre Channel LPe12002	v2.01A12