FUJITSU Software BS2000 Support for EMC® Product Families VMAX3™ and VMAX® All Flash

March 2018

Release Notice

1   General

This Release Notice is a summary of the major extensions, dependencies and operating information for connecting storage arrays of the EMC® [1] VMAX3™ and the
*2   EMC® VMAX® All Flash product families under the BS2000 operating system.

*3   The release level is of: March 2018.

*3   Changes to release level November 2016 are marked with *3
*2   Changes to release level July 2016 are marked with *2
*1   Changes to release level December 2015 are marked with *1

This and further ongoing release notices are contained in the SoftBooks-DVD and available online by http://manuals.ts.fujitsu.com.

If one or more previous versions are skipped when this product version is used, the information from the Release Notices (and README files) of the previous versions must also be noted.

*2   The EMC® VMAX3™ family of arrays 100K, 200K and 400K and the EMC® VMAX® All
*3   Flash arrays: 250F, 250FX, 450F, 450FX, 850F, 850FX, 950F, 950FX can be used as peripheral systems in a BS2000 environment.
The functions supported by BS2000 comprise, among conventional I/O functions, the following features (managed and monitored in BS2000 by SHC-OSD):
- Symmetrix-Remote-Copy-Facility (SRDF)
- TimeFinder/Mirror (BCV)
- TimeFinder/Clone
*2   - TimeFinder/SnapVX.   *(not newly supported but not mentioned in the earlier relnote)*

Additionally the following release notices have to be taken into account (depending on the installed hardware and software):

S-Server:
*3   SYSFGM.BS2OSD.110.E
                SYSFGM.BS2OSD.100.E
                SYSFGM.BS2OSD.090.E
SE Server:
*3   SYSFGM.OSDXC.110.E
                SYSFGM.OSDXC.100.E
                SYSFGM.OSDXC.095.E
SQ210:
                SYSFGM.OSDXC.100.E
                SYSFGM.OSDXC.090.E

In case SHC-OSD is used:
*3   SYSFGM.SHC-OSD.130.E
                SYSFGM.SHC-OSD.120.E

1.1   Ordering

The purchase can be ordered via your local distributors or the manufacturer company Dell EMC® corporation.

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[1] **'EMC'**,'**VMAX**' and '**VMAX3**' are registered trademarks of Dell EMC corporation, Hopkinton/MA (USA).

1.2   Delivery

Delivery and installation are carried out by the vendor Dell EMC® corporation.
The following EMC® Software Units are part of the shipment:
HYPERMAX OS 5977.

1.3   Documentation

*2   The documentation for the EMC® VMAX3™ Family and EMC® VMAX® All Flash arrays is
provided by Dell EMC® corporation.

For information about the use of SHC-OSD, please refer to manual and release notice of
the corresponding version.

*2   Information about the connection of EMC® VMAX3™ Family and EMC® VMAX® All Flash
*2   arrays to a BS2000 environment can be obtained by EMC® Support Matrix.

2   Software-Extensions

*2   ## 2.1   Extensions for VMAX3™ and VMAX® All Flash Storage Systems

Support of the Storage System VMAX3™.

*2   SHC-OSD as of V12.0A01 supports VMAX3™ as of
*1   OSD/BC V9.0 for S-Server
*1   OSD/XC V9.0 for SQ210
*1   OSD/XC V9.5 for SE Server (Server Unit SU300 as of X2000 V6.1).

*2   *Support of the VMAX® All Flash Storage System.*
*2
*2   SHC-OSD ab V12.0A01 supports the VMAX® All Flash Storage-Systems as of
*2   OSD/BC V9.0 for S-Server
*2   OSD/XC V9.0 for SQ210
*2   OSD/XC V9.5 for SE Server (Server Unit SU300 as of X2000 V6.1).

3   Technical Information

3.1   Software-Configuration

*2   The lowest version of the Storage Host component is SHC-OSD V12.0A01.

The respective current correction level of BS2000 must be used. At least required is:
*3   -   BS2000/OSD V9.0A or V10.0A: correction package 1/2016
*3   -   OSD/XC V9.0A, V9.5A or V10.0A: correction package 1/2016
*3   -   OSD/BC V11.0A, OSD/XC V11.0A: correction package   -

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3.2 BS2000 specific settings

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3.2.1 FC Port settings for Host/Host Group

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The Port Flag default settings for Host/Host Group on the FC Ports connected to FUJITSU BS2000 Servers should be used.

The following flag can be set depending on customer needs:

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- E Flag (Environ_Set):

  Enable: environmental changes are reported to BS2000 via the FC connection. BS2000 generates messages on the BS2000 console (NJDxxxx) to reflect these changes

  Disable: no environmental changes are reported to BS2000 via the FC connection. No NJDxxxx messages are displayed on the BS2000 console. However changes detected by SHC-OSD (NDE0xxx messages) are not affected by this setting.

3.3 Product Installation

3.3.1 Installation/Configuration of external Components

3.3.1.1 SYMAPI

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Using Dell EMC® Storage Systems with SHC-OSD requires an external management server with „Solutions Enabler" resp. „Unisphere for VMAX". This server needs FC connections to the the gatekeeper devices of the VMAX3™ resp. VMAX® All Flash systems.

LAN (TCP/IP) is used for communication between SHC-OSD (SYMAPI client) and the SYMAPI server. Only the IPv4 protocol is approved by Dell EMC® for BS2000 usage.

3.3.2 Installation/Configuration of BS2000 Components

The SYMAPI-Client is incorporated in SHC-OSD.

3.4 Discontinued functions (and those to be discontinued)

The Software product SCCA-BS2 is obsolete.
The delivery package SYMAPI, Gatekeeper-Devices configured/generated in BS2000 as well as the Subsystem SYMAPI-D are no longer required since SHC-OSD V12.0A.

3.5 Restrictions

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- The embedded "Solutions Enabler" mode on VMAX3™ and VMAX® All Flash Storage-Systems is not supported for SHC-OSD connection.
- SRDF Metro is not supported in BS2000 environments.

For further restrictions please refer to the Release notice of SHC-OSD.

3.6 Procedure in the event of errors

In case of Hardware- or Firmware-errors, please contact the Dell EMC® Service Desk. If a general error occurs in BS2000, please pay attention to the regarding instructions in the BS2000 release notice. In the case of SHC-OSD problems the necessary error documents for diagnose are described in the manual SHC-OSD.

4   Hardware-Requirements

This release comprises exclusively Fibre Channel connections via FC-Switch.

*3   Connectable BS2000 Servers: SE500, SE500B, SE700, SE700B, SE300, SE300B, S210, S175, SQ210.

The supported FC Switches are listed in the release notices of BS2000.

4.1   X2000 Requirements

*3   SQ210:   X2000 as of V5.3A0705
*3   SE Server - SU x86:   X2000 as of V6.1

4.2   Special Functions

*2   In order to use SRDF and/or TimeFinder with VMAX3™ or VMAX® All Flash the corresponding licenses must be installed.
For usage of SRDF- and/or TimeFinder (except TimeFinder/Clone), Dell EMC® support staff must prepare the proper settings in the storage systems.

The following combinations for SRDF connections are supported:

*2   VMAX® 20k – VMAX3™ / VMAX® All Flash
*2   VMAX® 40k – VMAX3™ / VMAX® All Flash
*2   VMAX3™ / VMAX® All Flash – VMAX3™ / VMAX® All Flash

5   Firmware-Levels

5.1   EMC® Storage Systems

The following HYPERMAX and SYMAPI versions are supported:

Model	HYPERMAX as of	SYMAPI as of
VMAX3™	OS 5977 *¹	V8.3
*2 VMAX® All Flash	OS 5977 *¹	V8.3

*¹ For SRDF connections with VMAX® 20k / 40k the suitable correction level must be coordinated with the Dell EMC® support.

5.2   Brocade FC-Switches

An FOS level as of v7.2.0a, released by FTS, has to be used.