



Seagate Exos E 4U106 Release Notes for Firmware Version R2023.33.1_RC

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Description

This package delivers firmware for Exos E 4U106 enclosures.

- USM Name: R2023.33.1_RC
- UUT Name: UUT4.47_generic_cp_USMR2023.33.1.RC

Update recommendation

This is a recommended firmware update for Exos E 4U106 Series products.

Operating systems

Supported operating systems include the following.

- Red Hat Enterprise Linux 7.9 onwards
- Debian 11 onwards

Installation instructions

To install this firmware by using UUT, see the *Seagate USM Update Tool User Guide*.

Version information

This section shows the firmware component versions contained in this package.

Controller

USM Package	USM_ONESTOR_V5.2_R2023.33.1
Bootloader	2.01
Firmware	5.2.0.200
CPLD (Intel)	26.00
CPLD (Lattice)	26.00
Primary Expander	
Flash Config	0xbbcc76a8
VPD Structure	0x01
VPD CRC (Intel)	0xcb2a9385
VPD CRC (Lattice)	0xdf57b8db

Secondary Expander	
Flash Config	0x4056751b
VPD Structure	0x01
VPD CRC	0x8dda1d95

Sideplane

USM Package	USM_ONESTOR_V5.2_R2023.33.1
Bootloader	2.01
Firmware	5.2.0.200
Flash Config	0x21daf90d
VPD Structure	0x01
VPD CRC	0x8f76a88c
Baseplane Common	
CPLD (Intel)	0x14.00
CPLD (Lattice)	0x15.00
Baseplane Slot 0	
VPD Structure	0x01
VPD CRC (Intel)	0x7b4252ef
VPD CRC(Lattice)	0x622e2cb2
Baseplane Slot 1	
VPD Structure	0x01
VPD CRC (Intel)	0xb27f24e7
VPD CRC Lattice)	0xab135aba

Midplane

USM Package	USM_ONESTOR_V5.2_R2023.33.1
VPD Structure	0x01
VPD CRC (Intel)	0x4af26b50
VPD CRC (Lattice)	0x48066b84

PSU

USM Package	USM_ONESTOR_V5.2_R2023.33.1
Main Firmware – Artesyn 2kW Platinum	2.00
Main Firmware – Bel Power (SPASGAT-02)	1.07
Main Firmware – Bel Power (SPASGAT-02T)	1.05
Main Firmware – AEI 2kW Titanium	1.04

Updating firmware using UUT

The USM upgrade utility (UUT) is a utility used for updating the firmware on Seagate JBOD enclosures from an attached SAS host. It identifies compatible Seagate JBOD enclosures, determines whether an update is required, and sequences the entire update process to bring the firmware in-line with the levels described in this document.

Standard upgrade

Usage	Command
Tool usage help	<code>./<package_name> --help</code>
Local update	<code>./<package_name></code>
List all stages	<code>./<package_name> --stages</code>
List current target versions	<code>./<package_name> --list</code>
Force stages for upgrade	<code>./<package_name> --force <comma-separated-stage-list></code>
Skip stages from update	<code>./<package_name> --skip <comma-separated-stage-list></code>

Custom configurations

There are multiple flash configurations for primary and secondary expanders in the firmware release package. You can select a configuration for upgrade by specifying the `--frus` option with the FRU keyword for that configuration. Use a keyword listed in the FRU Keyword column in the table below to use the corresponding configuration to update the Primary and Secondary Flash Config on the target. If you do not specify the `--frus` option, the tool will update the Primary and Secondary Flash Config on the target with a generic configuration.

To use the `--frus` option, the syntax is:

```
./<package-name> --frus="<FRU-keyword>"
```

For example, to update both the Primary and Secondary Flash Config at the same time, use the following command:

```
./UUT_XXXXXX --frus="primary_scsn_config","secondary_scsn_config"
```

The following table shows the FRU keywords and corresponding Primary and Secondary Flash configurations.

FRU Keyword	Details
primary_scsn_config, primary_scsn_config_lattice, secondary_scsn_config	This is a "Single Controller Shared Nothing" configuration. Once loaded, half the drives are visible per host.
logicalphymap, logicalphymap_lattice	This config applies logical phy remapping to the primary expander within the enclosure. When logical phy remapping is enabled, the expander phy IDs will be re-enumerated to present phys attached to drives first, followed by port phys and finally unused phys. This results in a consistent phy assignment between the A and the B path of the enclosure regardless of the physical phy assignment.

Note: If the `logicalphymap` FRU option is used, it will change logical phy ordering, to reflect that setting hard reboot of GEM is required manually. This hard reboot of GEM is required only once when config is moved from generic to `logicalphymap` or vice-versa.

UUT package information

The package contains following files.

Package Information	Note
UUT4.47_generic_cp_USMR2023.33.1_RC_REL_debian64	This UUT Supports Debian 11 onwards
UUT4.47_generic_cp_USMR2023.33.1_RC_REL_redhat64	This UUT Supports Red Hat 7.9 onwards
USM Upgrade Tool User Guide.pdf	Version 2.6

Issues fixed in USM_ONESTOR_V5.2_R2023.33.1

Issue ID	Description
FMW-59364	AEI second source 2KW Eco PSU support added
FMW-61234	Bel Power TI DSP 2KW Eco PSU support added
FMW-59366	Lattice CPLD Upgrade support added for all configs
HBT-900	Migrate UUT from Python 2.7 to Python 3.10
FMW-64705	Change main bay lid switch behavior
FMW-65896	NMB fans tolerance issue