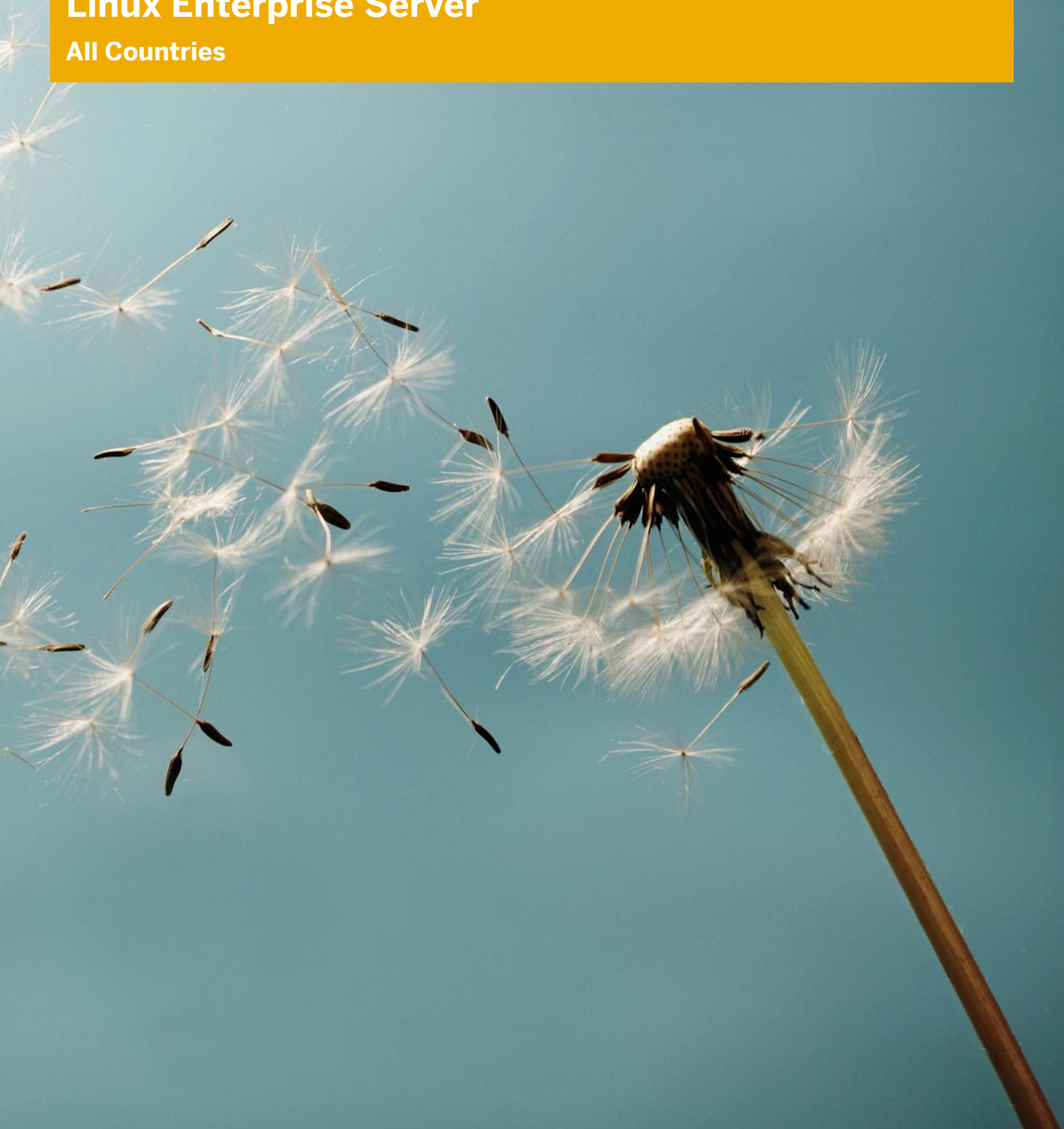


# How to Configure Hardware Platforms for SUSE Linux Enterprise Server

All Countries



# Typographic Conventions

Type Style	Description
<i>Example</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
<b>Example</b>	Emphasized words or expressions.
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<b>&lt;Example&gt;</b>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE	Keys on the keyboard, for example, <b>F2</b> or <b>ENTER</b> .

# Document History

Version	Date	Change
1.0	2014-04-14	First version
1.1	2014-05-05	Huawei servers certified for use with SAP Business One products powered by SAP HANA
1.2	2014-07-28	IBM configuration changes
1.3	2014-12-02	<ul style="list-style-type: none"><li>• Add configurations for Dell R920 and IBM x3850 X6</li><li>• Update Fujitsu configuration from RAID 1/RAID 0 to RAID 5</li></ul>
1.4	2015-03-06	<ul style="list-style-type: none"><li>• Add configurations for Dell R630, T630, R730, and T730</li><li>• Increase the Dell boot partition to 53 GB</li></ul>
1.4.1	2015-03-31	Increase the boot partition of all models to 53 GB
1.4.2	2015-05-04	Correct the instructions for Dell R630/T630/R730/T730: One disk must be reserved for hot spares.
1.5.1	2015-07-03	<ul style="list-style-type: none"><li>• Add configurations for Fujitsu Primergy RX 2540 M1, RX2560 M1, TX2560 M1</li><li>• Remove references to Fujitsu pre-installation</li></ul>
1.5.2	2015-08-24	<ul style="list-style-type: none"><li>• Add configurations for Dell R630, T60, R730, and T730</li><li>• Add configurations for HP ProLiant DL360/DL380/ML350 Gen9</li></ul>
1.5.3	2015-11-18	<ul style="list-style-type: none"><li>• Add configurations for System x AND Lenovo ThinkServer</li><li>• Merge IBM and Lenovo chapters</li></ul>

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# Table of Contents

<b>1</b>	<b>Introduction .....</b>	<b>5</b>
<b>2</b>	<b>Lenovo (Formerly IBM) Server.....</b>	<b>6</b>
2.1	Obtaining or Changing the Network Settings for Web Interface Access .....	6
2.1.1	Lenovo ThinkServer Server Management (TSM) .....	6
2.1.2	System x Integrated Management Module (IMM) .....	6
2.2	Optimizing Server Performance .....	7
2.3	Configuring Storage .....	7
2.3.1	System x3650, x3550 M4 and x3500 M4 .....	9
2.3.2	Other System x and Lenovo ThinkServer Models .....	11
<b>3</b>	<b>HP Server.....</b>	<b>13</b>
3.1	Defining BIOS Settings.....	13
3.2	Configuring Storage .....	13
<b>4</b>	<b>Dell Server .....</b>	<b>15</b>
4.1	Defining BIOS Settings.....	15
4.2	Configuring Storage .....	15
<b>5</b>	<b>Fujitsu Server.....</b>	<b>20</b>
5.1	Defining BIOS Settings.....	20
5.2	Configuring Storage .....	20

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# 1 Introduction

The SAP HANA database for SAP Business One products (SAP Business One, version for SAP HANA and SAP Business One analytics powered by SAP HANA) runs on SUSE Linux Enterprise Server (SLES). The following vendors are certified to provide server hardware for SLES:

- Lenovo (formerly IBM)
- HP
- Dell
- Fujitsu
- Huawei

When configuring your hardware platform, you can refer to the instructions in the section corresponding to your hardware vendor.

## Note

Instructions on Huawei servers are not provided. If you are using a Huawei server, refer to Huawei documentation for configuration guidance.

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## 2 Lenovo (Formerly IBM) Server

### 2.1 Obtaining or Changing the Network Settings for Web Interface Access

To access the Web interface and use the remote presence feature, you need the network settings for the Web interface. Depending on the server, different Web interface entry points are provided.

#### 2.1.1 Lenovo ThinkServer Server Management (TSM)

You use the TSM (ThinkServer Server Management) to manage Lenovo ThinkServer. You can obtain or configure the TSM IP address through the Setup utility, as follows:

1. Turn on the server, and when the prompt <F1> Setup is displayed, press **F1**.
2. From the main menu, on the *TSM Settings* tab, select *TSM Network Settings* and ensure that the value of *Configuration Address source* is set correctly.
3. Obtain or change the network settings (IP address, hostname, subnet mask, and gateway).
4. Choose *ESC* twice to return to the main menu.
5. From the main menu, choose *Save & Exit*.
6. Save the settings and confirm to restart the server.

#### 2.1.2 System x Integrated Management Module (IMM)

You use the IMM (Integrated Management Module) to manage System x. You can obtain or configure the IMM IP address through the Setup utility, as follows:

1. Turn on the server, and when the prompt <F1> Setup is displayed, press **F1**.
2. From the Setup utility main menu, choose *System Settings*.
3. In the next window, select *Integrated Management Module*.
4. In the next window, select *Network Configuration*.
5. Obtain or change the network settings (IP address, hostname, subnet mask, and gateway).
6. Save the network settings and confirm to restart IMM.
7. Choose *ESC* to return to the main menu.

## 2.1.2.1 Disabling IMM USB Interface

1. In the UEFI/BIOS, select *System Settings*.
2. Select *Integrated Management Module*.
3. Select *Commands on USB Interface* and set it to **Disabled**.
4. Choose *ESC* to return to the main menu.

### Note

To avoid interference from the USB network interface, you need to keep this feature disabled until you have finished installing SAP software.

## 2.2 Optimizing Server Performance

Follow the procedure below to optimize the server performance:

1. In the UEFI/BIOS, select *System Settings*.
2. Select *Operating Modes*.
3. Choose *Operating Mode: Maximum Performance*.
4. Choose *ESC* to return to the settings menu.
5. Select *Memory*.
6. Select *Patrol Scrub: Enable*.

Patrol Scrub is required for memory error detection by the SAP HANA database. In case of uncorrectable memory errors, the CPU sends a signal to the HANA application, which can then handle the error condition without crashing or losing data.

7. Choose *ESC* to return to the main menu.

## 2.3 Configuring Storage

### Caution

Proper RAID configuration with two virtual drives is vital for successful SAP software installations.

**System x3650 M4** is equipped with 120-GB or 240-GB SSD drives.

**System x3650 M5 based on Intel® Xeon® V3** family of processors, **Lenovo ThinkServer RD550** and **Lenovo ThinkServer RD650** are equipped with a minimum of 4 x 300-GB HDD drives. The storage can be increased to a maximum of 8 x 300-GB HDD drives or replaced entirely with 4 x 1.2-TB HDD drives, depending on the size and growth expectations of the SAP HANA installation.

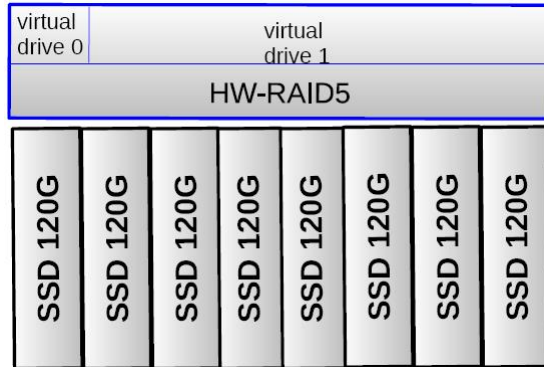
The **System x3850 X6 based on Intel® Xeon® V2 and V3** families of processors is equipped with a minimum of 4 x 1.2 TB HDD drives. The storage can be increased to a maximum of 8 x 1.2-TB HDD drives, depending on the size and growth expectations of the SAP HANA installation.

These internal SSDs or HDDs will store both the SAP HANA log and the data.

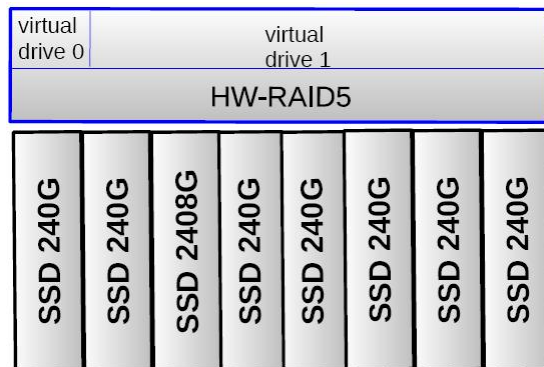
There is no external storage.

Once the system is installed, there is a hardware-based RAID with two virtual disks for the operating system and for SAP HANA.

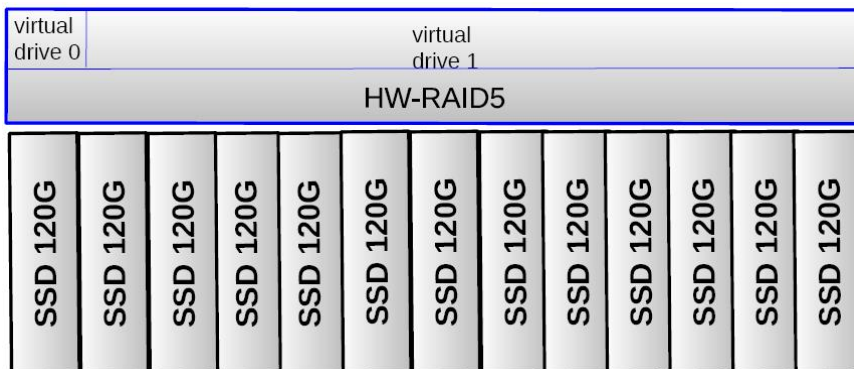
Configuration for x3500 M4 / x3550 M4, 128-GB memory, 8× 120 GB SSDs



Configuration for x3500 M4 / x3550 M4, 256-GB memory, 8 × 240 GB SSDs

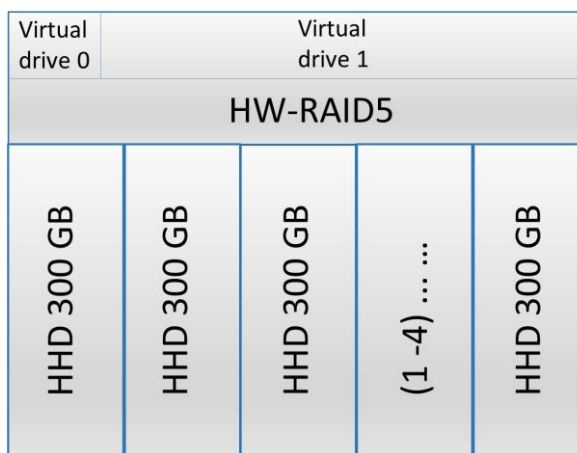


Configuration for x3500 M4 / x3550 M4, 256-GB memory, 13 × 120 GB SSDs

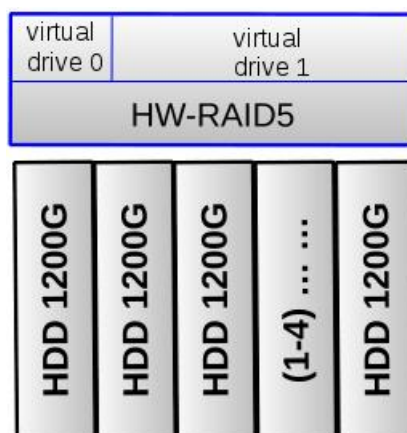




Configuration for System x3650 M5 and Lenovo ThinkServer RD550/RD650, 4-8 × 300 GB HDDs



Configuration for System x3850 X6, 4-8 × 1.2 TB HDDs



### 2.3.1 System x3650, x3550 M4 and x3500 M4

To configure the RAID settings of the M5110 RAID controller, proceed as follows:

1. In the UEFI/BIOS, select *System Settings*.
2. Select *Adapters and UEFI Drivers*.
3. Select *LSI EFI SAS Driver* in the list.
4. Select *WebBIOS*.
5. One RAID controller has already been selected. Keep the selection and choose *Start*.
6. Select *Configuration Wizard*.
7. Select *New Configuration*.
8. Select *Yes* to clear the existing configuration.
9. Select *Manual Configuration*.
10. Select *Redundancy when possible*.

- 
11. Select *Drive Security Method: No Encryption*.
  12. Select *Data Protection: Disabled*.
  13. For the IBM x3500 M4 / x3550 M4 model with 128-GB RAM, select all 8 drives (slots 0-7), and then select *Add to Array*.  
For the IBM x3500 M4 / x3550 M4 model with 256-GB RAM, select all 13 128-GB drives (slots 0-12) or all 8 240-GB drives (slots 0-7), and then select *Add to Array*.
  14. Select *Accept DG*.
  15. Select *Next*.
  16. Select *Add to Span*.
  17. Select *Next*.
  18. Specify the capacity (**53 GB**) for the first virtual drive. This drive will be used for the operating system and swap space.
  19. Select *Accept*.
  20. Select *Yes* for *Write Back with BBU* mode.
  21. Select *Back* to configure the next virtual drive.
  22. Select *Add to Span*.
  23. Select *Next*.
  24. Select *Update Size*.
  25. Allocate the remaining capacity to the second virtual drive. This drive will be used for storing the SAP application data.
  26. Select *Accept*.
  27. Select *Yes* for *Write Back with BBU* mode.
  28. Select *Next*.
  29. Select *Accept*.
  30. Select *Yes* to save the configuration.
  31. Select *Cancel* for *SSD Caching*.
  32. Select *Yes* to initialize the virtual drives.
  33. Make sure that the following properties are selected for the virtual drives:
    - o *RAID Level: 5*
    - o *Stripe Size: 128 KB*
    - o *Access: RW*
    - o *Read: Always Read Ahead*
    - o *Default Write: Write Back with BBU*
    - o *Disable BGI: No*
    - o *I/O: Direct*
    - o *Disk Cache: Unchanged*
    - o *Advanced Properties, SSD Cache: Disable*
  34. While the virtual drives are being initialized in the background, the installation can proceed.
  35. Exit WebBIOS.
  36. Exit UEFI/BIOS with “**Y**” to save, and continue with booting the server.

## 2.3.2 Other System x and Lenovo ThinkServer Models

To configure the RAID settings of the ServeRAID M5210 and AnyRAID 720i(x) RAID controllers, proceed as follows:

1. In the UEFI/BIOS, select depending on the model:
  - o System x 3650 M5: *System Settings*
  - o System x 3850 X6: *System Settings*
  - o ThinkServer: *Boot Manager*
2. Choose *Adapters and UEFI Drivers*.
  - o System x 3850 X6: Select *LSI EFI SAS Driver*
  - o ThinkServer: Select *LSI MegaRAID*
  - o System x 3850 X6: Select *Main Menu*
3. Select *Configuration Management*.
4. Select *Create Virtual Drive*.
5. M5 Series: Select *Advanced*.
6. Select *RAID Level: RAID5*.
7. Select *Drives From: Unconfigured Capacity*.
8. Choose *Drives*.
  - o System x 3650 M5: Scroll down and select all drives displayed.
  - o System x 3850 X6: Select *Check All*
  - o ThinkServer: Select *Check All*
9. Choose *Apply Changes*.
10. To confirm your selection, choose *OK*.
11. Specify the capacity (53 GB) for the first virtual drive. This drive will be used for the operating system and swap space.
12. Make sure that the following properties are selected for the virtual drives:
  - o *Virtual Drive Size: 53 GB*
  - o *Stripe Size: 256 KB*
  - o *Read Policy: Read Ahead*
  - o *Write Policy: Write Back*
  - o *I/O Policy: Cached*
  - o *Access Policy: Read/Write*
  - o *Drive Cache: Enable*
  - o *Disable Background: No*
13. Choose *Save Configuration* and then *Confirm [X]*.
14. Choose *Yes* and then *OK*.
15. To add another virtual drive, choose *Create Virtual Drive*.
16. M5 Series: Select *Advanced*.
17. Select *RAID Level: RAID5*.
18. Select *Drives From: Free Capacity*.
  - o System x 3650 M5: Select *Drive Group 0: RAID5 [X]*.

- 
- System x 3850 X6: Select *Drive Group 0: RAID5 [X]*.
  - ThinkServer: Select *Drive Group 0: RAID5 [Enabled]*.
19. Allocate the remaining capacity to the second virtual drive. This drive will be used for storing the SAP application data.
  20. Choose *Apply Changes* and then *OK*.
  21. Choose *Save Configuration*.
    - *System x 3650 M5: Select Confirm [X]*.
    - *System x 3850 X5: Select Confirm [X]*.
    - ThinkServer: *Select Confirm [Enabled]*, then *Yes*, then *OK*.
  22. While the virtual drives are being initialized in the background, the installation can proceed.
  23. Exit the configuration management.
  24. Exit UEFI/BIOS with “**Y**” to save, and continue with booting the server.

# 3 HP Server

## 3.1 Defining BIOS Settings

1. Disable ASR by choosing *Server Availability*→*ASR Status*→*Disabled*.
2. Set the power profile to maximum performance by choosing *Power Management Options* → *HP Power Profile* → *Maximum Performance*.

## 3.2 Configuring Storage



Caution

Proper RAID configuration with two virtual drives is vital for successful SAP software installations.

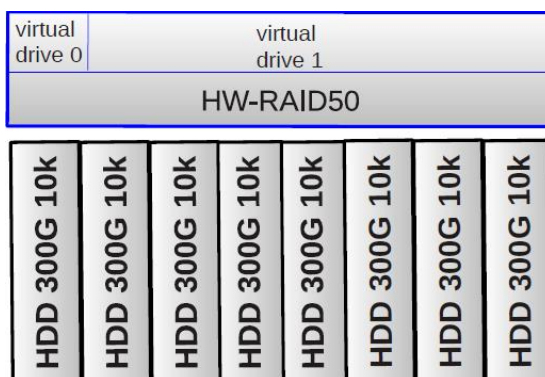
The ProLiant ML350p Gen8 model for SAP HANA is equipped with a Smart Array P420 RAID controller and 8 x 300 GB HDDs, which store both the SAP HANA log and the data.

The ProLiant DL360/DL380/ML350 Gen9 model for SAP HANA is equipped with a Smart Array P440ar RAID controller and 8 x 600 GB HDDs, which store both the SAP HANA log and the data.

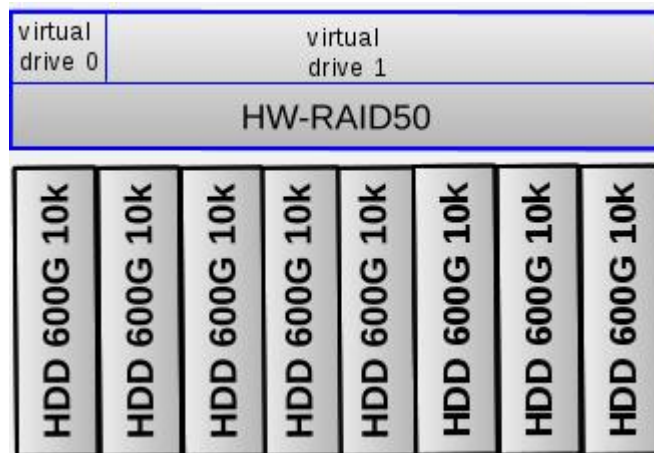
There is no external storage.

Once the system is installed, there is a hardware-based RAID50 with two virtual disks for the operating system and for SAP HANA.

Configuration for ProLiant ML350p Gen8, 300-GB memory, 8 HDDs



Configuration for ProLiant DL360/DL380/ML350 Gen9, 600-GB memory, 8 HDDs



To configure the Smart Array P420 (or P440ar) RAID controller, proceed as follows:

1. Boot the machine.
2. During the boot process, press **F5** to enter the Array Configuration Utility (ACU).
3. Select *Smart Array P420* in slot *x*.
4. Select *Create Array*.
5. Select all 8 drives.
6. Select *OK*.
7. Select *Create Logical Drive* (or *Create Array*).
8. Specify the properties as follows:
  - o *Fault Tolerance* (or *RAID Level*): **RAID50**
  - o *NPG*: **2**
  - o *Stripe Size*: **256 KB**
  - o *Sectors/Tracks*: **32**
  - o *Size*: **Other** (or **Custom Size**) → **53 GB**
  - o *Caching*: **Enabled**
9. Select *Save* (or *Create Logical Drive*). This drive will be used for the operating system and swap space.
10. Create a second drive by repeating steps 6 to 8 and choosing **Max Size** for *Size*.  
This drive will be used for the SAP application data.
11. Select *Exit ACU* (or *Finish*).
12. Reboot the machine.

---

## 4 Dell Server

### 4.1 Defining BIOS Settings

#### Dell PowerEdge R620 and T620

1. Boot the machine.
2. During the boot process, press **F2** to enter the system setup.
3. In the main menu, choose *System BIOS* and then choose *Integrated Devices*.
4. Choose *Disable* for the internal SD card port.

 Note

This option is available only if IDSDM (Internal Dual SD Module) is installed on the system board.

5. Choose *Back* and then *Finish*.
6. To save your changes, choose *Yes*.
7. Choose *Finish*.
8. To confirm to leave the system setup, choose *Yes*.

#### Dell PowerEdge R910 and R920

Keep the default BIOS settings.

### 4.2 Configuring Storage

The DELL PowerEdge R620 and T620 models for SAP HANA are each equipped with an H710P RAID controller and 8 300-GB disks. The DELL PowerEdge R910 model for SAP HANA is equipped with an H710P RAID controller and 14 300-GB disks. The operating system and the SAP HANA data require separate RAID configurations from the SAP HANA log on each model. On each model, RAID configurations for the operating system and the SAP HANA data must be different from the RAID configurations for the SAP HANA log.

The DELL PowerEdge R920 model for SAP HANA is equipped with an H730P RAID controller and 10 900-GB disks.

The DELL PowerEdge R630, T630, R730, T730 models for SAP HANA are equipped with an H730P RAID controller and 8 600-GB disks.

There is no external storage.

 Caution

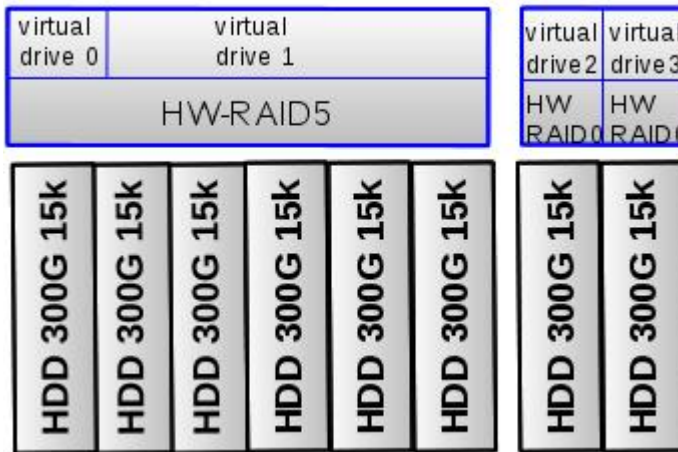
Proper RAID configuration with two virtual drives is vital for successful SAP software installations.

## PowerEdge R620 and T620

Dell PowerEdge R620 and T620 require the following configuration:

- Hardware-based RAID5 with 6 disks for the operating system and for the SAP HANA data
- Hardware-based RAID0 for each individual disk of the 2 virtual drives for the SAP HANA log

Configuration for R620/T620, 8HDDs

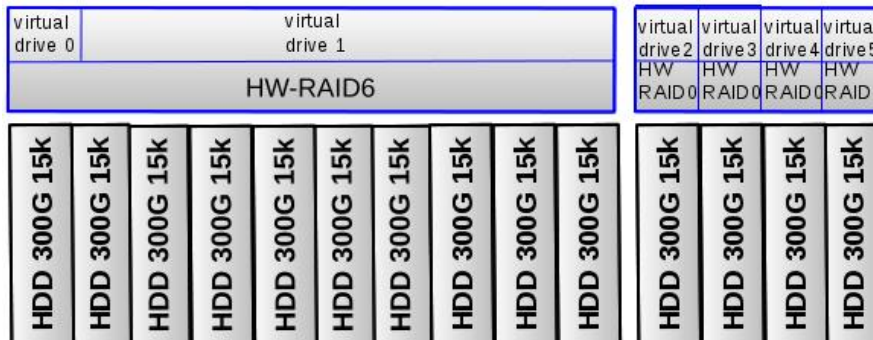


## PowerEdge R910

Dell PowerEdge R910 requires the following configuration:

- Hardware-based RAID6 with 10 disks for the operating system and the SAP HANA data
- Hardware-based RAID0 for each individual disk of the 4 virtual drives for the SAP HANA log

Configuration for PowerEdge R910, 512-GB memory, 14 HDDs

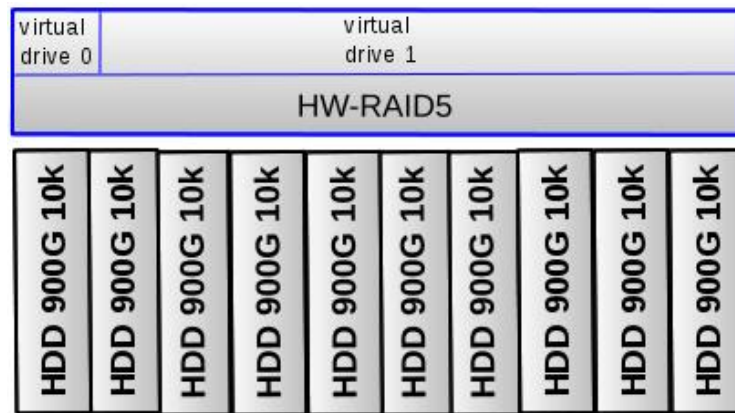


## PowerEdge R920

Dell PowerEdge R920 requires the following configuration: hardware-based RAID5 with 10 disks for the operating system, the SAP HANA data, and the SAP HANA log.



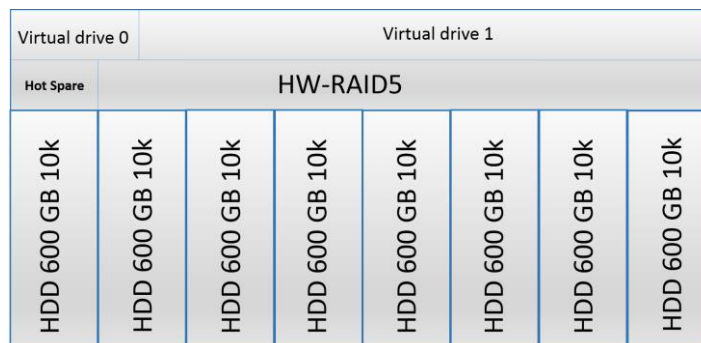
Configuration for PowerEdge R920, 1 TB memory, 10 HDDs



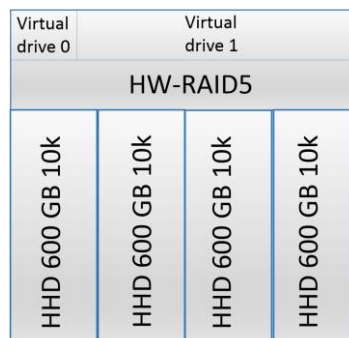
### PowerEdge R630, T630, R730, T730

Depending on the main memory, these models can have the following configuration:

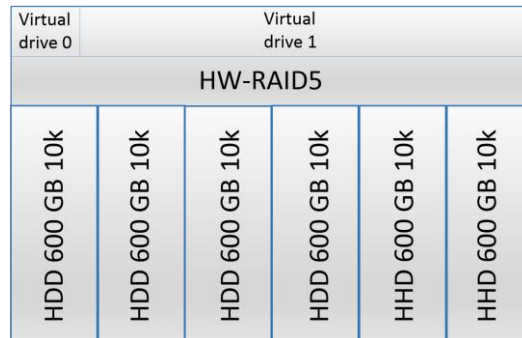
- 7 disks (for the operating system, the SAP HAAN data, and the SAP HANA log) as RAID5 and 1 disk as a hot spare



- 4 disks as RAID5 (no hot spare)



- 6 disks as RAID5 (no hot spare)



To configure the RAID settings of the H710P or H730P RAID controller, proceed as follows:

1. Boot the machine.
2. When prompted, press **CTRL+R** to enter the RAID adapter configuration utility.
3. If there are configured RAID arrays and virtual drives that do not conform to the certified storage layout as described below, you must delete them as follows:
  1. Select *PERC H710P Adapter*.
  2. Press **F2**.
  3. Select *Clear Config*.
  4. Select *YES*.
4. Select *PERC H710P Adapter*.
5. Press **F2**.
6. Select *Create New VD*.
7. Select *RAID Level* and press **Enter**.
8. R620/T620/R920/R630/T630/R730/T730: Select *RAID-5*.  
R910: Select *RAID-6*.
9. Press **Enter**.
10. R620/T620: Mark the first 6 disks as part of the RAID 5 array by selecting a disk and pressing **Space**; repeat the action for all 6 disks.  
R910: Mark the first 10 disks as part of the RAID 6 array.  
R920: Mark the first 9 disks as part of the RAID 5 array.  
R630/T630/R730/T730: Mark the first 7 disks as part of the RAID 5 array.
11. Select *VD Size: 53 GB*.
12. R620/T620/R910: Select *Advanced Settings* → *Initialize* and press **Space** to mark the drive for initialization.  
R920/R630/T630/R730/T730: Select *Configure Hot Spare*.
13. Select *OK* to confirm initialization.
14. Select *OK* to create a 53-GB virtual drive. This drive will be used for the Linux root file system and swap space.
15. R920/R630/T630/R730/T730: In the *Dedicated Hot Spare for Disk Group 0* window, press **Space** to mark the disk and select *OK*.
16. Select *OK* to confirm completion.
17. Select *Disk Group 0* and press **F2** to create another virtual drive on this disk group.
18. Select *Add New VD*.

The remaining disk size is displayed; do not change the value.

19. R620/T620/R910: Select *Advanced Settings* → *Initialize* and press `[Space]` to mark the drive for initialization.  
R920/R630/T630/R730/T730: Select *Configure Hot Spare*.
20. R920/R630/T630/R730/T730: In the *Dedicated Hot Spare for Disk Group 0* window, press `[Space]` to mark the disk and select *OK*.
21. R620/T620/R910: Select *OK* to confirm initialization.  
R920/R630/T630/R730/T730: The RAID configuration is now finished and you can exit the configuration utility. The final RAID configuration for R920 is 1 disk group with 2 virtual drives.

**Note that the remaining steps are only for R620, T620, and R910.**

22. Select *OK* to create the larger virtual drive. This drive will be used for the SAP HANA log. Select *OK* to confirm completion.
23. Create 2 or 4 RAID-0 drives by repeating the following steps twice (R620 and T620) or four times (R910).
  1. Select *PERC H710P Adapter*.
  2. Press `[F2]`.
  3. Select *Create New VD*.
  4. Select *RAID Level*, press `[Enter]`, select *RAID-0*, and then press `[Enter]`.
  5. Select and mark one of the remaining disks as part of the RAID 0 array.  
Do not change the VD size.
  6. Select *Advanced Settings* → *Initialize* and press `[Space]` to mark the drive for initialization.
  7. Select *OK* to confirm initialization.

The final RAID configuration should be as follows:

- R620/T620: 3 disk groups with 4 virtual drives
  - R910: 5 disk groups with 6 virtual drives
24. Press `[ESC]` and select *OK* to exit the RAID configuration utility.
  25. Press `[CTRL]+[ALT]+[DEL]` to reboot the machine.

# 5 Fujitsu Server

## 5.1 Defining BIOS Settings

The following requirements have been met:

- The BIOS boot sequence is set and RAID LUN is at first place "(Bus 01 Dev 00) PCI RAID Adapter".
- The hardware clock is set to the correct time in the UTC-time zone.
- The IPMI IP address for remote management is set. The chosen address is unique in this network segment.

## 5.2 Configuring Storage

The Fujitsu Server TX300 S6 is equipped with a RAID controller with BBU and 6 x 146 GB 15k disks (internal). There is no external storage.

The Fujitsu Servers TX300 S7/S8 and RX350 S7/S8 are equipped with a RAID controller with BBU and 8x 300 GB 10k disks (internal). There is no external storage.

The Fujitsu Servers RX2540 M1, RX2560 M1 and TX2560 M1 are equipped with a PRAID EP400i controller with BBU and, depending on the memory size, 4x 600 or 6x600 GB 10k disks (internal). There is no external storage.

Once the system is installed, there is a hardware-based RAID 5 with two virtual disks for the operating system and for SAP HANA.

### Fujitsu Primergy TX300 S6, TX300 S7/S8, RX350 S7/S8

These servers require the following configuration: hardware-based RAID5 with 6 or 8 disks for the operating system, the SAP HANA data, and the SAP HANA log.

Configuration for TX300 S6, 6 HDDs

Virtual drive 0	Virtual drive 1				
HW-RAID5					
HDD 146 GB 15k	HDD 146 GB 15k	HDD 146 GB 15k	HDD 146 GB 15k	HDD 146 GB 15k	HDD 146 GB 15k

Configuration for TX300 S7/8, RX350 S7/8, 8HDDs

Virtual drive 0				Virtual drive 1			
HW-RAID5							
HDD 300 GB 10k	HDD 300 GB 10k	HDD 300 GB 10k	HDD 300 GB 10k	HDD 300 GB 10k	HDD 300 GB 10k	HDD 300 GB 10k	HDD 300 GB 10k

To configure the RAID settings of the RAID controller, proceed as follows:

1. In the UEFI/BIOS, select *System Settings*.
2. Select *Adapters and UEFI Drivers*.
3. From the list, select *LSI EFI SAS Driver*.
4. Select *WebBIOS*.
5. One RAID controller has already been selected. Keep the selection and choose *Start*.
6. Select *Configuration Wizard*.
7. Select *New Configuration*.
8. Select *Yes* to clear the existing configuration.
9. Select *Manual Configuration*.
10. Select *Redundancy when possible*.
11. Select *Drive Security Method: No Encryption*.
12. Select *Data Protection: Disabled*.
13. Select all 8 drives (slots 0-7), and then select *Add to Array*.
14. Select *Accept DG*.
15. Select *Next*.
16. Select *Add to Span*.
17. Select *Next*.
18. Specify the capacity (**53GB**) for the first virtual drive. This drive will be used for the operating system and swap space.
19. Select *Accept*.
20. Select *Yes* for *Write Back with BBU* mode.
21. To configure the next virtual drive, select *Back*.
22. Select *Add to Span*.
23. Select *Next*.
24. Select *Update Size*.
25. Allocate the remaining capacity to the second virtual drive. This drive will be used for storing the SAP application data.
26. Select *Accept*.

27. Select *Yes* for *Write Back with BBU* mode.
28. Select *Next*.
29. Select *Accept*.
30. Select *Yes* to save the configuration.
31. Select *Cancel* for *SSD Caching*.
32. Select *Yes* to initialize the virtual drives.
33. Make sure that the following properties are selected for the virtual drives:
  - *RAID Level: 5*
  - *Stripe Size: 256 KB*
  - *Access: RW*
  - *Read: Normal*
  - *Default Write: Write Back with BBU*
  - *Disable BGI: No*
  - *I/O: Cached*
  - *Disk Cache: Disable*
  - *Advanced Properties, SSD Cache: Disable*

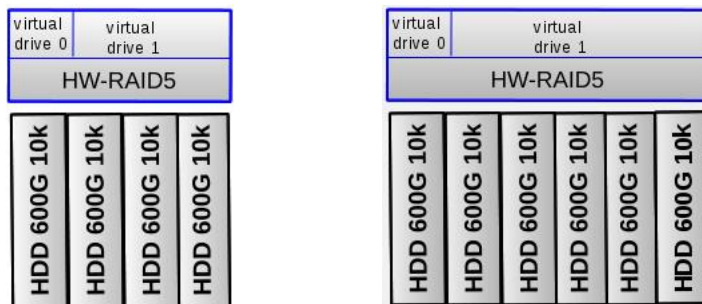
While the virtual drives are being initialized in the background, the installation can proceed.

34. Exit WebBIOS.
35. Exit UEFI/BIOS with “**y**” to save the settings, and continue with booting the server.

### Fujitsu Primergy RX2540 M1, RX2560 M1, TX2560 M1

These servers require the following configuration: hardware-based RAID5 with 4 or 6 disks for the operating system, the SAP HANA data, and the SAP HANA log.

Configuration for RX2540 M1, RX2560 M1, TX2560 M1 with 4 or 6 disks



To configure the RAID settings of the RAID controller, proceed as follows:

1. Boot the machine.
2. When prompted, press **CTRL+R** to enter the RAID adapter configuration utility.
3. If there are configured RAID arrays and virtual drives that do not conform to the certified storage layout as described below, you must delete them as follows:
  1. Select *PRAID EP240i*.
  2. Press **F2**.
  3. Select *Clear Config*.
  4. Select *YES*.

- 
4. Select *PRAID EP240i*.
  5. Press **F2**.
  6. Select *Create New VD*.
  7. Select *RAID Level* and press **Enter**.  
Select *RAID-5*.
  8. Press **Enter**.
  9. Mark each disk as part of the RAID 5 array by selecting the disk and pressing **Space**; repeat the action for all disks.
  10. Select *Size: 53 GB*.
  11. Select *OK* to confirm initialization.
  12. A 53-GB virtual drive is now created. This drive will be used for the Linux root file system and swap space.
  13. Select *Disk Group 0* and press **F2** to create another virtual drive on this disk group.
  14. Select *Add New VD*.  
The remaining disk size is displayed; do not change the value.
  15. Select *OK*.
  16. Select *OK* to confirm initialization.
  17. The RAID configuration is now finished; press *ESC* to exit the configuration utility and then reboot the machine.



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