



PREPARING SERVER5 FOR OS

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Before You Start

Preparing your new ioSafe Server5

Before you start loading your new ioSafe Server5 with an OS you should have read through the Quick Start guide (910-11782-00 Quick Start Guide, Server 5). Your iosafe will need to be loaded with new Hard Drives and either connected to a Monitor and Keyboard or accessible through a remote terminal.

Download Drivers and Utilities

You will need to ensure you have the correct drivers for your installation. We recommend using a USB Flash Drive to transfer the files to your iosafe. To ensure you have the latest driver sets follow the steps below.

Areca RAID Card Drivers and Utilities

- 1 Go to http://www.areca.com.tw/support/s_windows/windows.htm
- 2 Find and download the Areca ARC-1226 Windows 64 bit Storport driver

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➤ SATA RAID Adapters/SAS RAID Adapters/Mezzanine Board/External PCIe RAID

The drivers and utilities are used for RAID controllers ARC11xx/ARC12xx/ARC16xx/ARC18xx. If your inquiry does not appear on the below list, please contact [Areca Technical Support](#)

[Support & Downloads](#) > **Windows** > [Linux](#) > [unRAID](#) > [xenServer](#) > [FreeBSD](#) > [OpenBSD](#) > [MacOS](#) > [Solaris](#) > [VMware](#)

Windows - Driver			
OS	Version	Build Date	Description
Windows 10	6.20.00.32	2016/06/22	This version included Storport driver, WHQL Certified.
Windows 8/Server 2012/7/2008R2/2008/Vista/Server 2003/XP (64-bit)	6.20.00.31	2014/11/28	This version included Storport driver, WHQL Certified.
Windows 8/7/2008/Vista/Server 2003 (32-bit)	6.20.00.31	2014/11/28	This version included Storport driver, WHQL Certified.
Windows XP (32-bit)	6.20.00.31	2014/11/28	This version only supported SCSI Port driver.

- 3 Find and download the ArchTTP Utility

Windows - ArchTTP			
OS	Version	Build Date	Description
Windows	V2.4.5	2015/5/19	This ArchTTP utility is used for 32-bit or 64-bit operating system to launch the firmware embedded web browser McRAID storage manager.

SuperMicro Drivers and Utilities

- 1 Go to <https://www.supermicro.com/products/motherboard/xeon/d/X10SDV-4C-TLN2F.cfm>

2 Select Download the Latest Drives and Utilities on the right hand pane



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Virtualization® Cloud® Software Defined Storage Big Data Virtual Desktop and Gaming

X10SDV-4C-TLN2F

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Broadwell-DE, Xeon D 4-Core


Key Features

1. Intel® Xeon® processor D-1521, Single socket FCBGA 1667, 4-Core, 8 Threads, 45W
2. System on Chip
3. Up to 128GB ECC RDIMM DDR4 2133MHz or 64GB ECC/non-ECC UDIMM in 4 sockets
4. 1 PCI-E 3.0 x16, M.2 PCI-E 3.0 x4 (SATA support), M Key 2242/2280
5. 2 10GbE LAN ports
6. 6 SATA3 (6Gbps) ports via SoC
7. 2 USB 3.0 ports (rear)
4 USB 2.0 ports (via headers)
8. 1 SuperDOM, 1 COM, TPM header, GPIO and SMBus headers
9. 12V DC input and ATX Power Source


Links & Resources

- ▶ [Tested Memory List](#)
- ▶ [Tested HDD List](#)
- ▶ [Tested AOC List](#)
- ▶ [Motherboard Manual](#)
- ▶ [Quick Reference Guide](#)
- ▶ [Update Your BIOS](#)
- ▶ [BMC/IPMI Firmware](#)
- ▶ [Download the Latest Drivers and Utilities](#)
- ▶ [Download Driver CD](#)
- ▶ [OS Compatibility](#)

3 Select the following drop downs

 **Product Resources** [\[Back \]](#)

For X10SDV-4C-TLN2F

 **→ Drivers & Utilities**
In order to locate a driver/utility, please select your Operating System and Device Type below: (for OS supported, please refer to [OS Compatibility](#))
Complete Drivers CD ISO can be downloaded [here](#).

Select OS Manufacturer :

Select OS :

Select Device Type :

4 Down load the Intel LAN and Intel INF drivers

Description:	Intel INF for Chipset D-1500 series
Version:	10.1.2.19
Post Date:	06/28/2016
Link:	Download Mirror 1 Mirror 2 Mirror 3
Description:	Intel LAN Driver (All)
Version:	21
Link:	Download Mirror 1 Mirror 2 Mirror 3

Create a RAID Volume

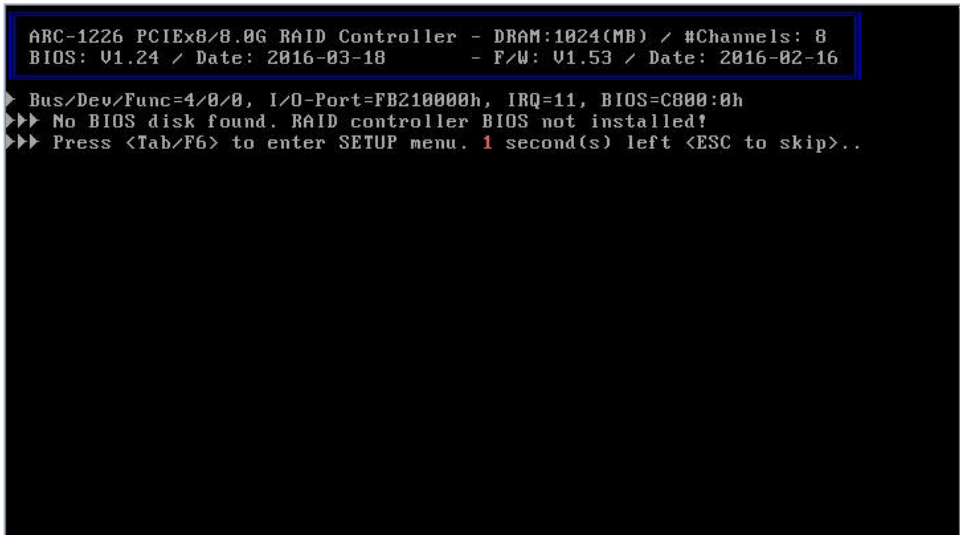
Now that you have downloaded the latest Drivers you will need to define the RAID volume. The RAID can be configured in different ways, but ioSafe suggests using a RAID5 and defining the capacity to the maximum available capacity.

Create a RAID Volume

Warning: If you install a hard disk that contains data, the system will format the hard disk and erase all data. If you need the data in the future, please back it up before installation.

NOTE: There are many ways to configure your ioSafe Server. The steps below are recommended by ioSafe.

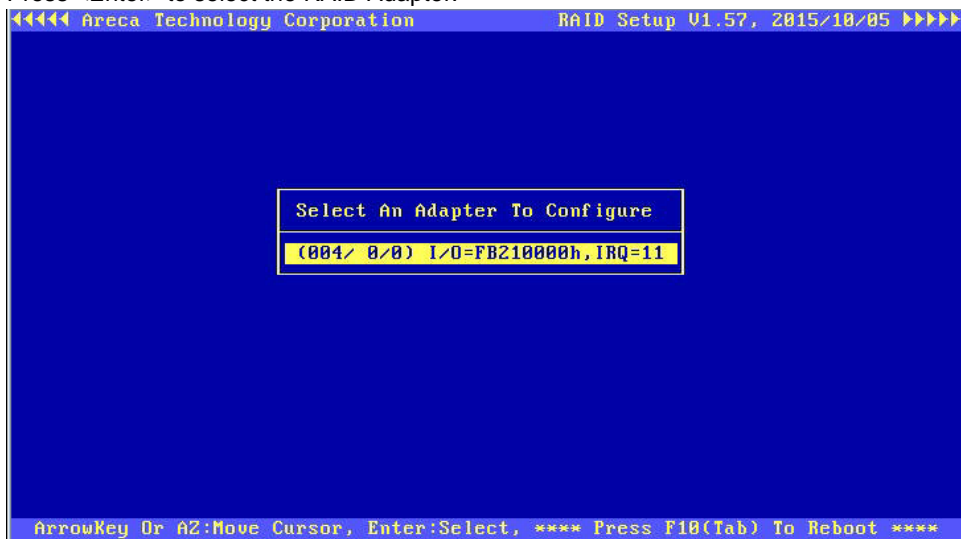
- 1 Power up the Server by pressing the power button and wait for the system to power-up.
- 2 When prompted, Press <Tab> to enter the RAID controller SETUP menu.



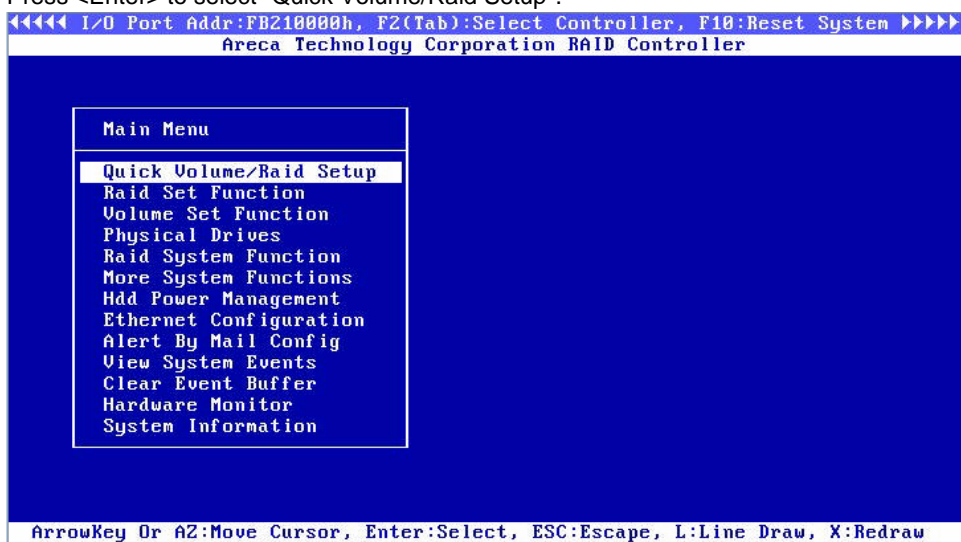
```
ARC-1226 PCIe8/8.0G RAID Controller - DRAM:1024(MB) / #Channels: 8
BIOS: V1.24 / Date: 2016-03-18      - F/W: V1.53 / Date: 2016-02-16

> Bus/Dev/Func=4/0/0, I/O-Port=FB210000h, IRQ=11, BIOS=C800:0h
>> No BIOS disk found. RAID controller BIOS not installed!
>> Press <Tab/F6> to enter SETUP menu. 1 second(s) left <ESC to skip>..
```

- 3 Press <Enter> to select the RAID Adapter.



- 4 Press <Enter> to select "Quick Volume/Raid Setup".



- 5 Type in the Raid Card password followed by <Enter>. The default is 0000

```

<<<<< I/O Port Addr:FB210000h, F2(Tab):Select Controller, F10:Reset System >>>>>
Areca Technology Corporation RAID Controller

Main Menu
Quick Volume/Raid Setup
Raid Set Function
Volume Set Function
Physical Drives
Raid System Function
More System Functions
Hdd Power Management
Ethernet Configuration
Alert By Mail Config
View System Events
Clear Event Buffer
Hardware Monitor
System Information

Verify Password
[ ]

ArrowKey Or AZ:Move Cursor, Enter:Select, ESC:Escape, L:Line Draw, X:Redraw

```

- 6 Press <Enter> to select Raid 5

```

<<<<< I/O Port Addr:FB210000h, F2(Tab):Select Controller, F10:Reset System >>>>>
Areca Technology Corporation RAID Controller

Main Menu
Quick Volume/Raid Setup
Raid Set Function
Volume Set Function
Physical Drives
Raid System Function
More System Functions
Hdd Power Management
Ethernet Configuration
Alert By Mail Config
View System Events
Clear Event Buffer
Hardware Monitor
System Information

Total 5 Drives
Raid 0
Raid 1+0
Raid 1+0+Spare
Raid 3
Raid 5
Raid 6
Raid 3 + Spare
Raid 5 + Spare
Raid 6 + Spare

ArrowKey Or AZ:Move Cursor, Enter:Select, ESC:Escape, L:Line Draw, X:Redraw

```

- 7 Select each of the following options when prompted.

Greater Two TB Volume Support No Use 64bit LBA Use 4K Block	Available Capacity :16000.0 GB Edit The Capacity :16000.0 GB
Select Stripe Size 4K 8K 16K 32K 64K 128K 256K 512K 1024K	Create Vol/Raid Set Yes No

Initialization Mode	Raid Set Mode
Foreground Initialization	128 Volumes
Background Initialization	16 Volumes
No Init(To Rescue Volume)	

Write Protection
Disabled
Enabled

- 8 The Raid Volume will begin Initializing in the background. The server can be configured and restarted while the RAID is initializing in the background.

```

<<<< I/O Port Addr:FB210000h, F2(Tab):Select Controller, F10:Reset System >>>>
Areca Technology Corporation RAID Controller

```

Main Menu Quick Volume/Raid Setup Raid Set Function Volume Set Function Physical Drives Raid System Function More System Functions Hdd Power Management Ethernet Configuration Alert By Mail Config View System Events Clear Event Buffer Hardware Monitor System Information
--

```

ARC-1226-VOL#0000 : Initialize : 0.1% Completed, Elapse Time = 00:03:12

```

- 9 Power the system Off

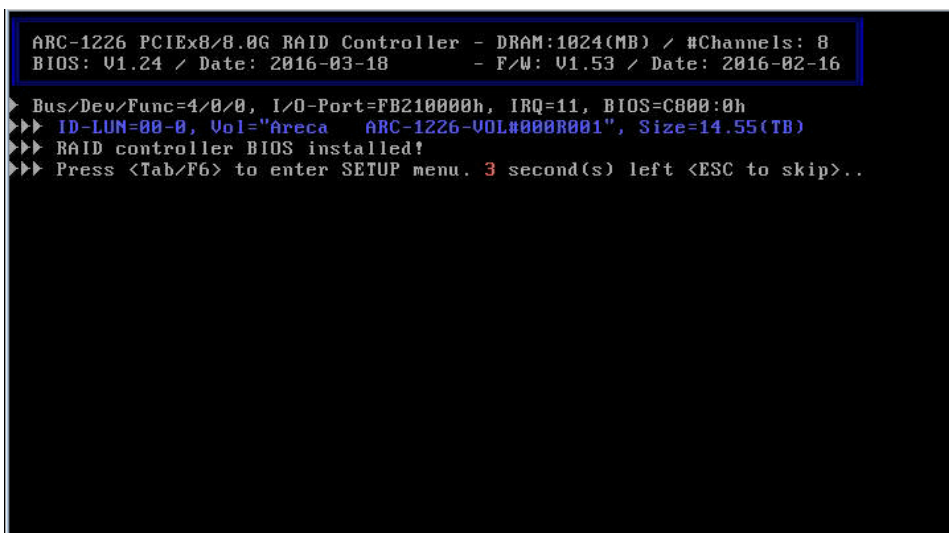
Installing Windows Server 2012 R2

After the RAID volume has been defined you can load the OS. There is no CD/DVD reader on the ioSafe so you will need to have an external CD/DVD or some other means to load the OS such as an ISO image loaded on a USB memory stick.

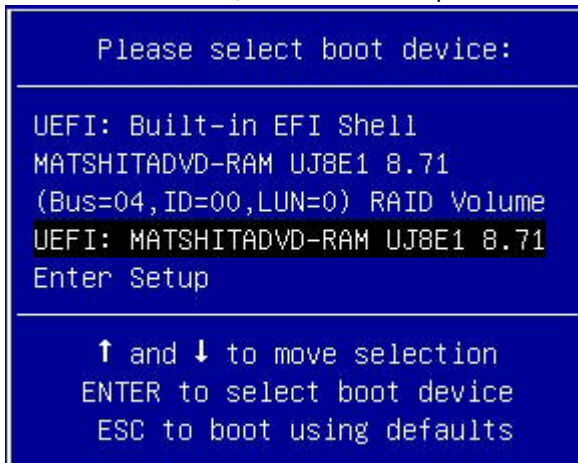
- 1 Connect/Insert the Windows Server 2012R2 media.
- 2 Power the System On, and press F11 at the SuperMicro start up screen to invoke the Boot Menu.



- 3 Prior to the Boot Menu the RAID start up menu will appear. Verify the RAID volume has been created. If the RAID volume is present the boot menu will automatically appear next.
Note: If there RAID volume is NOT present, press TAB to enter the RAID SETUP. You will need to revisit the previous steps to Create a RAID volume. Ensure all steps have been followed correctly and verify all settings.



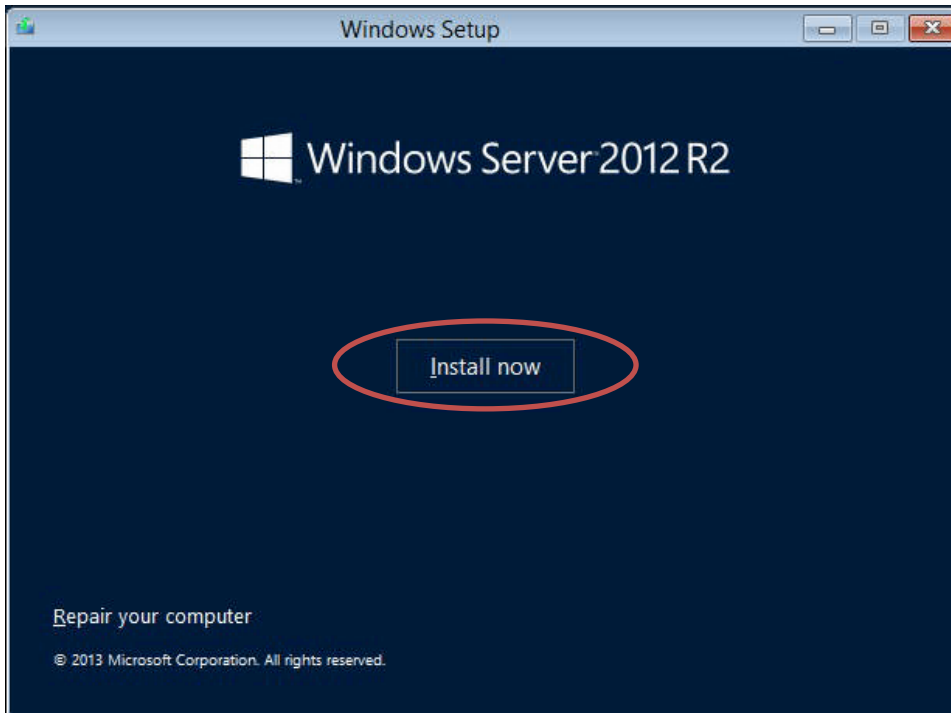
- 4 Within the Boot Menu, Select the UEFI option that corresponds to the correct install media and press <Enter>



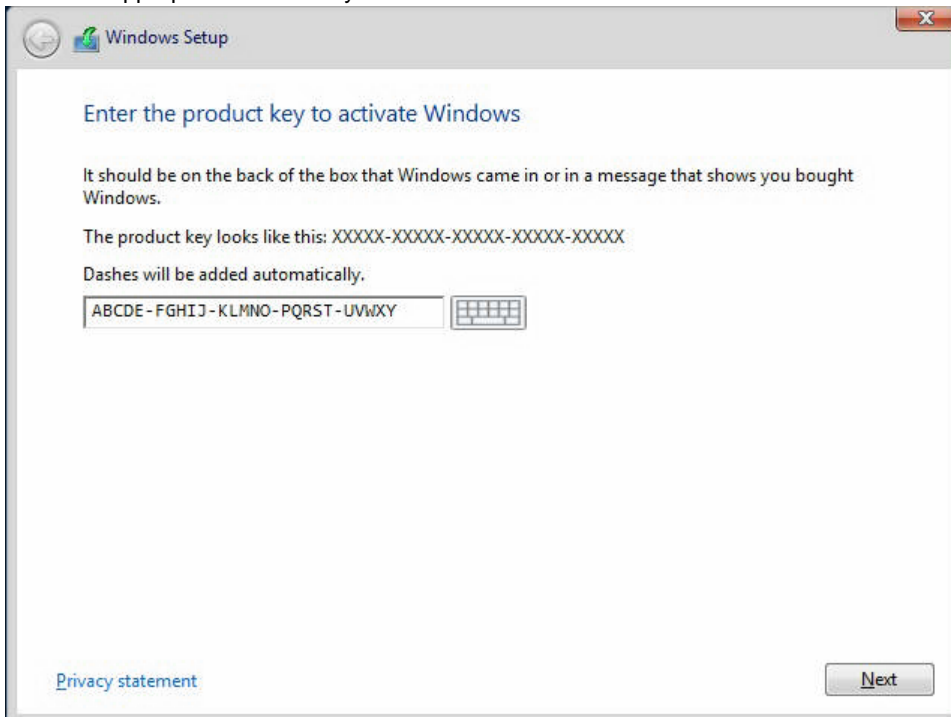
- 5 Set the desired regional settings and click "Next"



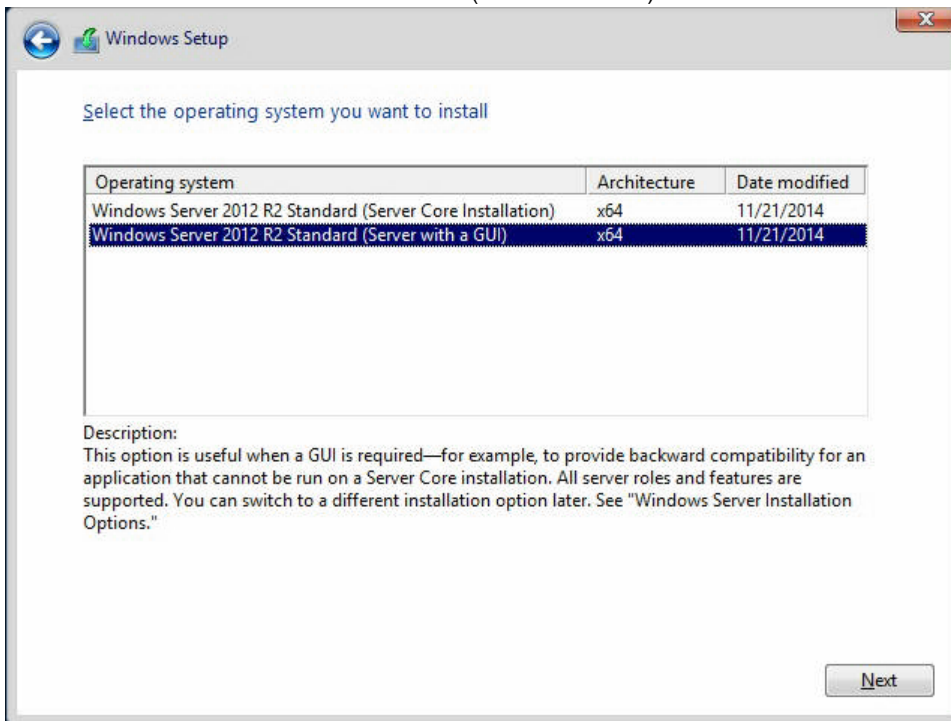
6 Click "Install Now"



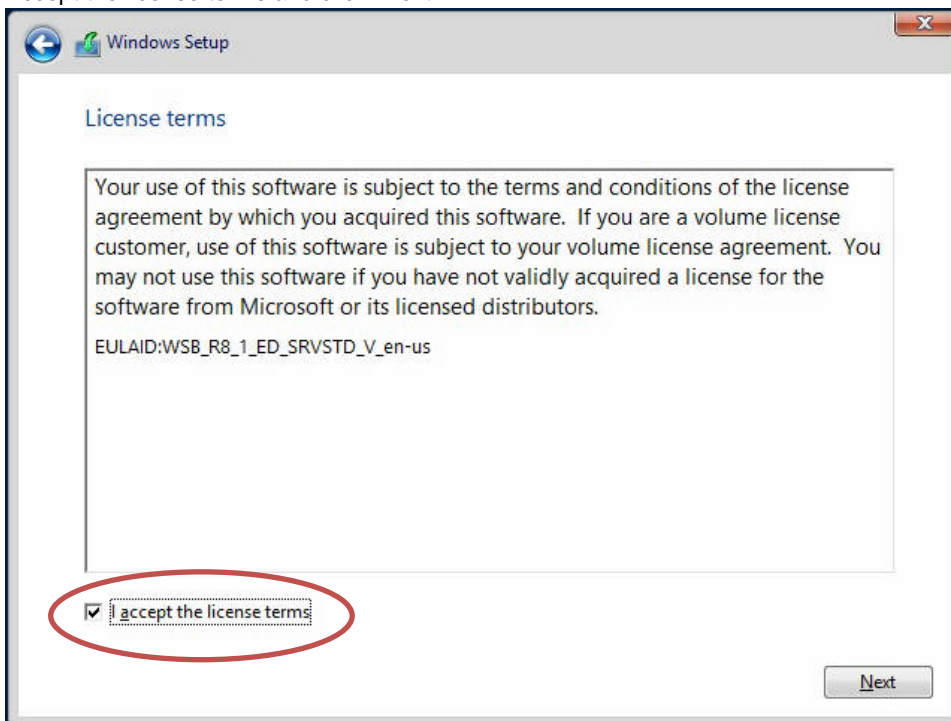
7 Enter the appropriate license key from the install media



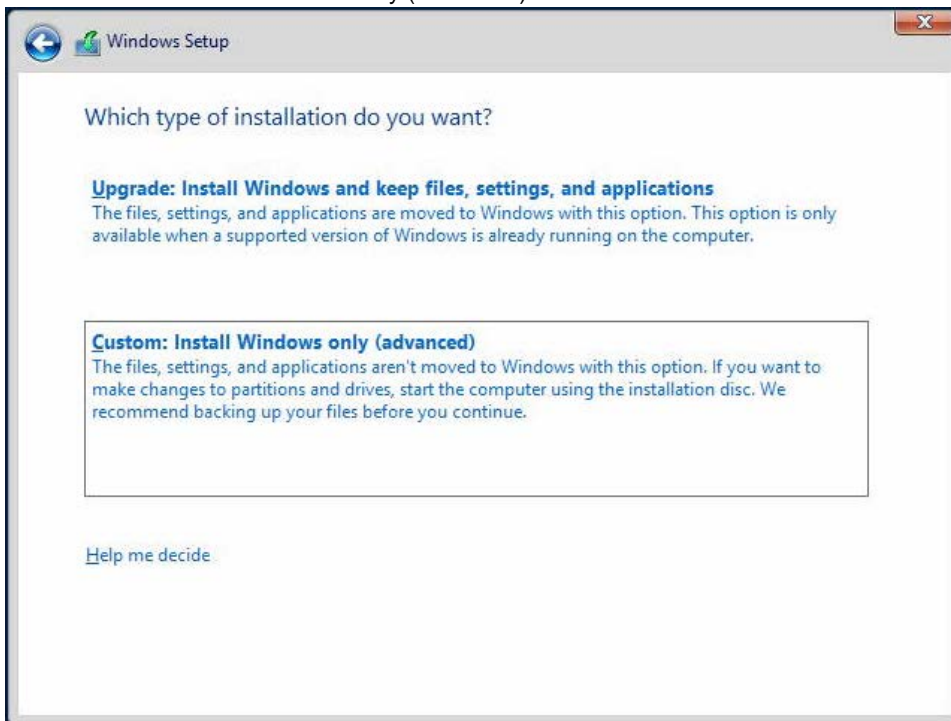
- 8 Select "Windows Server 2012 R2 Standard (Server with GUI) x64" and click "Next"



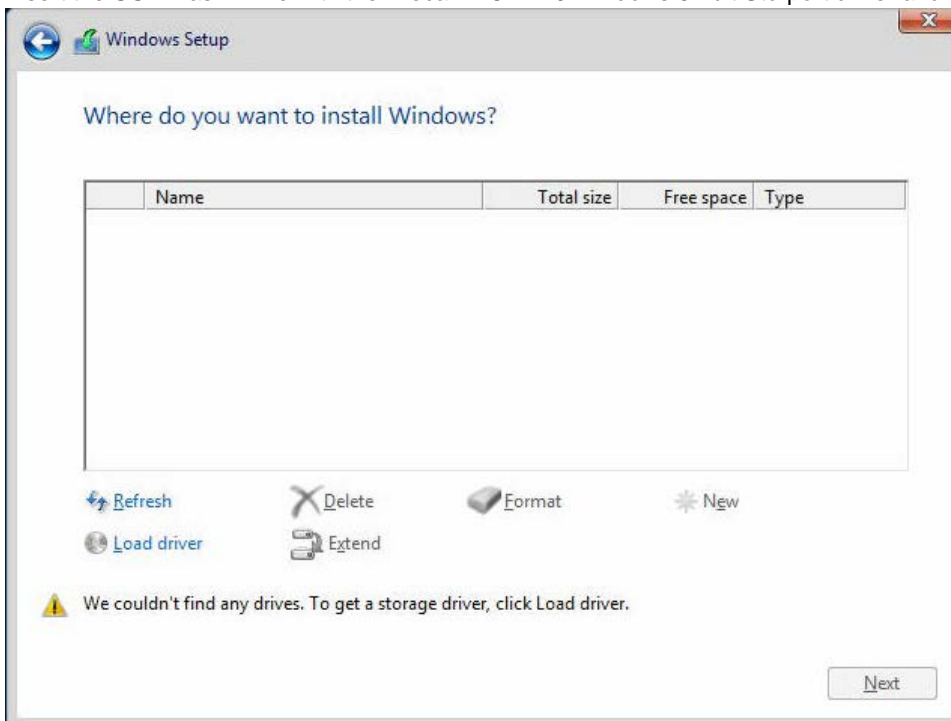
- 9 Accept the license terms and click "Next"



10 Select "Custom: Install Windows only (advanced)"



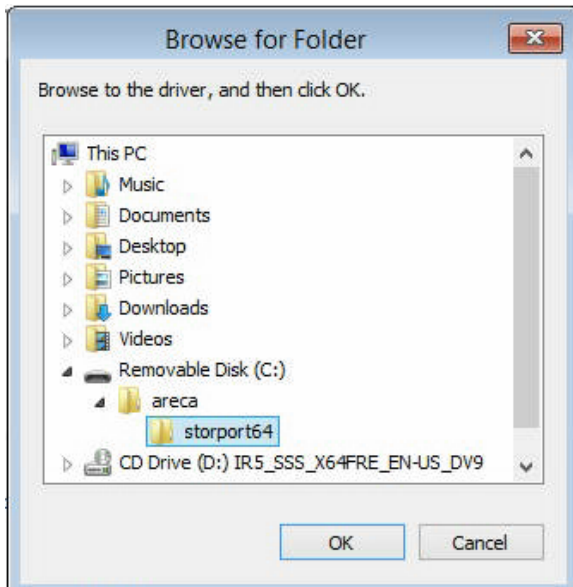
11 Insert the USB Flash Drive with the Areca ARC-1226 Windows 64 bit Storport driver and click "Load driver"



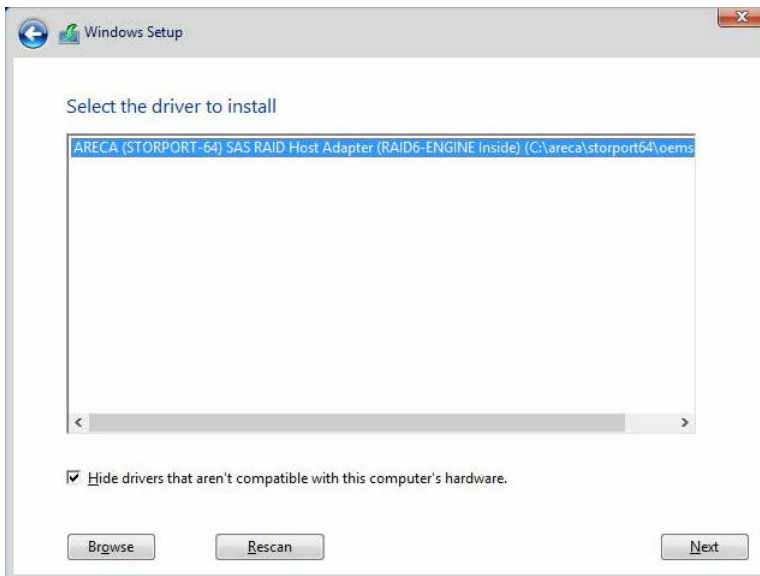
12 Click "Browse"



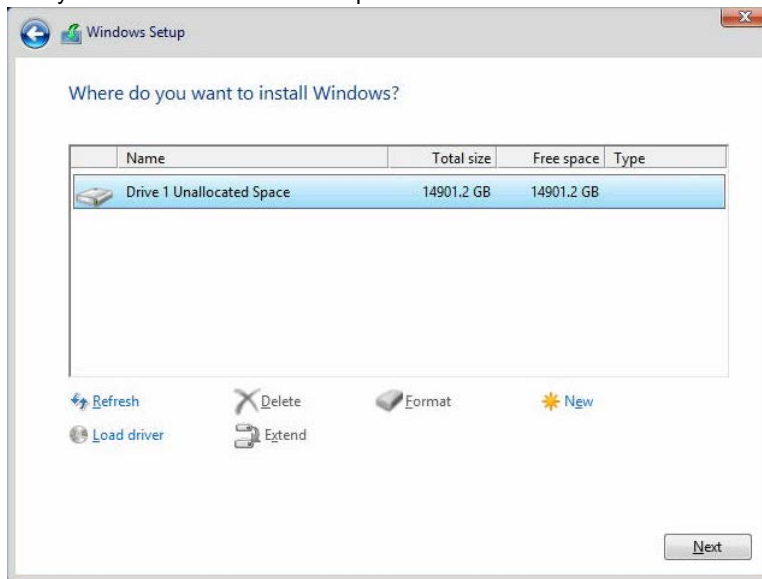
13 Media and folder where the Areca ARC-1226 Windows 64 bit Storport driver is located and click "OK"



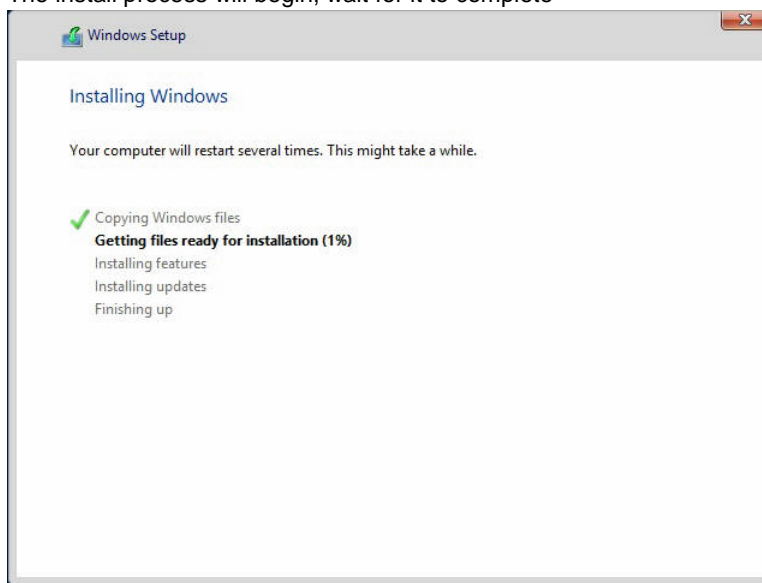
14 Click "Next"



15 Verify the "Drive 1 Unallocated Space" is selected and Click "Next"

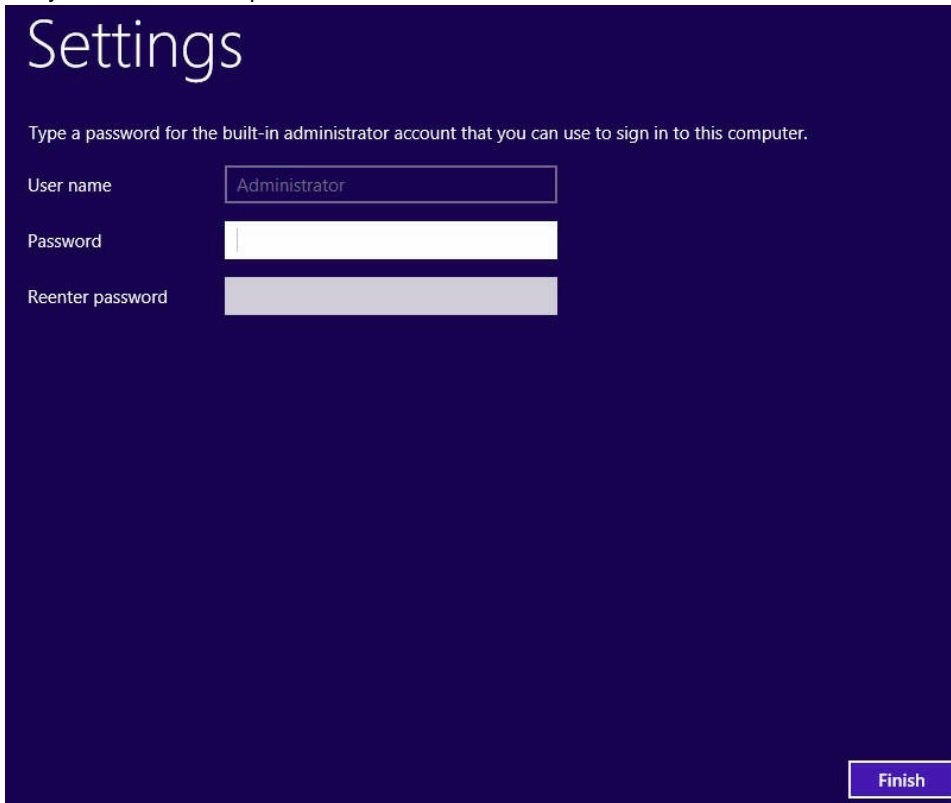


16 The install process will begin, wait for it to complete



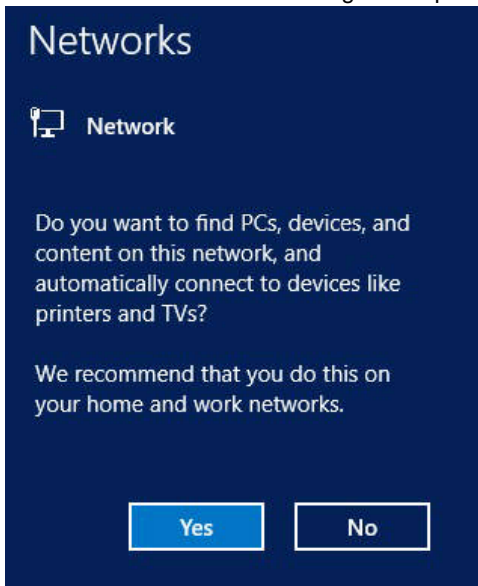
17 The system will Restart automatically when this phase of the install has finished. Remove the install media and the USB Flash drive that contains the Areca ARC-1226 Windows 64 bit Storport driver.

- 18 Set your Administrator password and click "Finish"



The image shows a Windows Settings window titled "Settings" with a dark blue background. Below the title, there is a text prompt: "Type a password for the built-in administrator account that you can use to sign in to this computer." Below this prompt are three input fields: "User name" with the text "Administrator" entered, "Password" (empty), and "Reenter password" (empty). A "Finish" button is located in the bottom right corner.

- 19 Sign in to the 2012 R2 server using the Administrator credentials.
- 20 Insert the USB Flash Drive that contains the Chipset, LAN and ArcHTTP install packages.
- 21 Using File Explorer, extract, navigate to and install the Chipset "infinst_autol" package.
- 22 Using File Explorer, extract, navigate to and install the LAN "Autorun" package.
- 23 Click "Yes" to the Network configuration prompt



The image shows a Windows Network configuration prompt window titled "Networks". It features a network icon and the text: "Do you want to find PCs, devices, and content on this network, and automatically connect to devices like printers and TVs?" Below this, it says: "We recommend that you do this on your home and work networks." At the bottom, there are two buttons: "Yes" and "No".

- 24 Click "Finish", then "Exit" to complete the installation.

- 25** Using File Explorer, extract, navigate to and install the winhttp "install" package.
- 26** Remove the USB Flash Drive with the Chipset, LAN and ArchHTTP install packages and Restart the Server.
- 27** Sign in to the 2012 R2 server using the Administrator credentials.
- 28** Set the network parameters for this server as needed to function properly in its installed network environment.
- 29** Change the server name as required to meet the needs of its installed network environment. A restart will be required to complete this change.
- 30** Using the Server Manager, it is recommended that the following roles and features be added:
 - a** Server Roles
 - i. File and Storage Services -> File and iSCSI Services
 - ii. Hyper-V
 - b** Features
 - iii. .NET Framework 3.5 Features
 - iv. Windows Server Backup
- 31** If the server does not automatically restart, restart it and sign in using the Administrator credentials.
- 32** Open the "Action Center" under "System and Security" in the "Control Panel" and turn on the "Windows SmartScreen" filter.
- 33** Configure Windows Automatic Updates and install all the latest Windows Updates.
- 34** If desired, an ioSafe desktop background image can be downloaded at <http://iosafe.com/support>

Product Support

Congratulations! You are now ready to manage and enjoy all the features of your ioSafe. For more information regarding specific features, please refer to our online resources available at www.iosafe.com

Data Recovery Procedure

If the ioSafe faces possible data loss for any reason, you should immediately call the ioSafe Disaster Response Team at 1-888-984-6723 (US & Canada) or 1-530-820-3090 (International) extension 430. You can also send an email to disastersupport@iosafe.com. The professionals at ioSafe can determine the best actions to take to protect your valuable information. In some cases a self-recovery can be performed and provide you with immediate access to your information. In other cases, ioSafe may request that the product be returned to the ioSafe factory for data recovery. In any case, contacting ioSafe is the first step.

The general steps for disaster recovery are:

1. Email disastersupport@iosafe.com with your serial number, product type and date of purchase.
2. If you cannot email, call ioSafe Disaster Support Team at 1-888-984-6723 (US & Canada) or 1-530-820-3090 (International) extension 430
3. Report disaster event, and obtain return shipping address/instructions
4. Follow ioSafe team instructions on proper packaging.
5. ioSafe will recover all data which is recoverable according to the terms of the Data Recovery Service Terms and Conditions.
6. ioSafe will then place any recovered data on a replacement ioSafe device
7. ioSafe will ship the replacement ioSafe device back to the original user
8. Once the primary server / computer is repaired or replaced, the original user should restore the primary drive data with the ioSafe backup data

Contact Us

Customer Support

USA Toll Free Phone: 888.98.IOSAFE (984.6723) x400

International Phone: 530.820.3090 x400

Email: customersupport@iosafe.com

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