

Voisus Cold Start Guide



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Use this cold start procedure to:

- Install the latest Voisus software version
- Rebuild a damaged hard drive
- Create a spare hard drive

Warning: Performing a system cold start will cause complete erasure of the system hard drive.

1 Cold Start Overview

The following is an overview of the cold start procedure:

- **Back Up the Voisus Server:** Since a cold start causes complete system erasure, it is critical to back up the data stored on your Voisus Server.
- **BIOS Configuration:** Configure the BIOS to ensure that the cold start will run properly.
- **Cold Start:** Erase the hard drive and install the RHEL and ASTi software.
- **Restore the Voisus Server:** Restore the files saved during backup.

2 Getting Started

The following items are needed for cold start:

1. Hardware

- Voisus Server
- Monitor
- Keyboard

2. Software

- ASTi DVD
- RHEL DVD
- OR
- ASTi USB Cold Start Flash Drive

3. Network Data

From the Voisus web interface¹ start page, navigate to Configuration > Network Setup to find the following information. Record these for use during the cold start procedure:

- Eth0 IPv4 Address

¹[getstarted.html#voisuswebinterface](#)

- Subnet Mask

3 Step 1: Backup

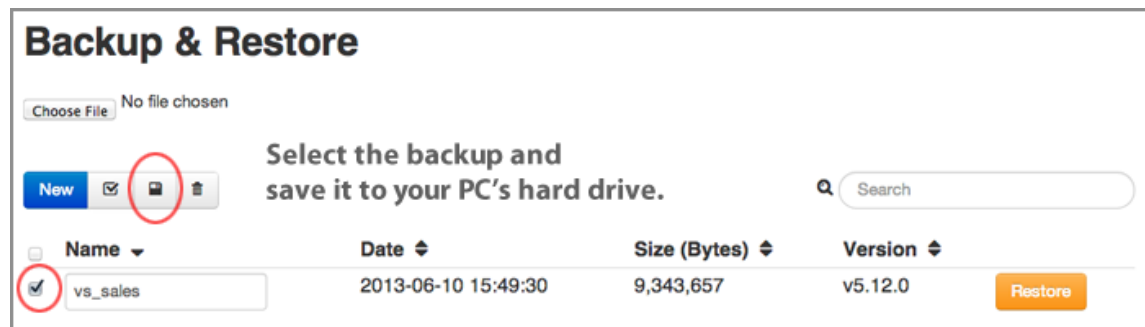
The cold start procedure will completely erase the Voisus server hard drive, including Scenarios, system users and DIS Settings. Use the Backup & Restore page in the Voisus web interface to back up your data.

3.1 Log In to the Web Interface

1. Using a web browser on the same network as the Voisus server, enter the Voisus server's IP address in the URL bar.
2. Log in to the Voisus web interface with your username and password. The default is:
Username: admin
Password: astirules

3.2 Create a Backup

1. On the start page, navigate to Configuration > System Backup.
2. Click "New" to create a new backup on your Voisus server.
3. To download the backup to your PC's hard drive, click the checkbox next to your backup and click the disk button.



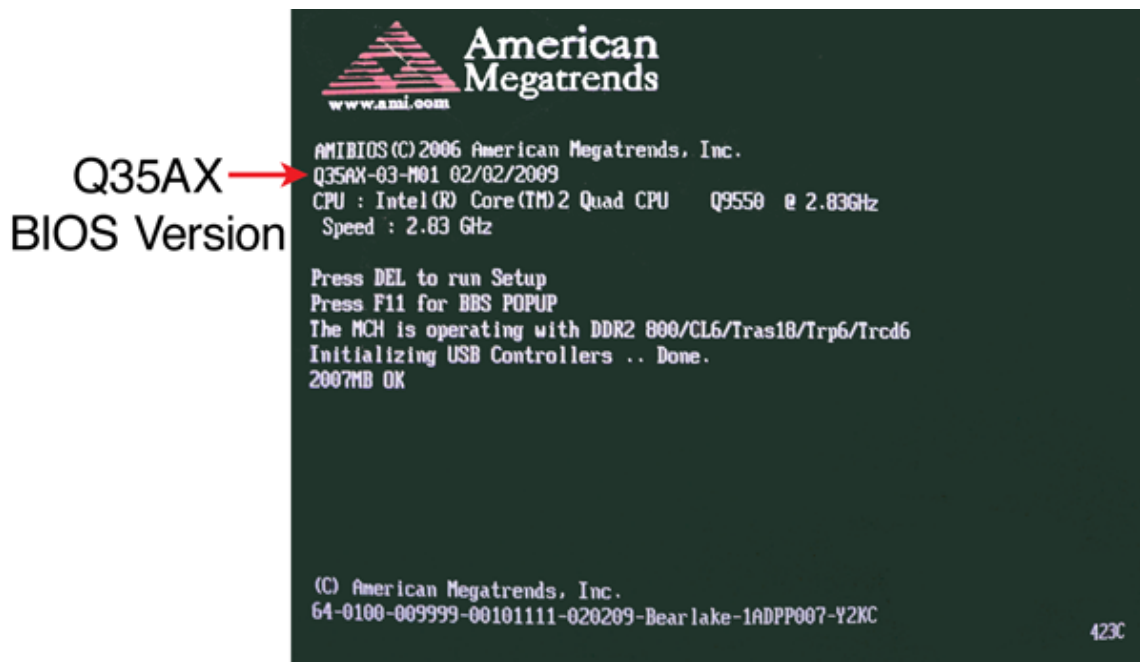
4 Step 2: BIOS Configuration

Configure the BIOS as outlined below to ensure that Step 3: Cold Start (chapter 5) will run properly.

If you will be using a USB keyboard for the cold start procedure, enable it in BIOS.

BIOS Version	Voisus Server
Q35AZ American Megatrends	2U or Tower
Q67AX	2U or Tower
BLH6710H	Small Form Factor
JGIBX10J	Small Form Factor
D33217GKE Intel	MicroServer

1. Shut down the Voisus server.
2. Connect the monitor and keyboard to the server.
3. Boot the server and pause the screen to view the BIOS version number:



4. Proceed with the configuration for your BIOS version.

4.1 BIOS version Q35AX American Megatrends

1. Power on the server and immediately press the Delete key as the system boots to enter the BIOS setup.
2. Navigate to **Exit** and select **Load Optimized Results**.
3. Navigate to **Main** and set the date and time using Greenwich Mean Time (GMT).

4. Navigate to **Advanced > CPU Configuration** and set:
 - **Intel(R) SpeedStep(tm) tech** to [Disabled]
 - **Hardware Prefetcher** to [Disabled]
 - **Adjacent Cache Line Prefetch** to [Disabled]
5. Navigate to **Advanced > IDE Configuration** and set:
 - **SATA#1** to [Enhanced]
 - **Configure SATA#1** to [IDE]
6. Navigate to **Advanced > SuperIO Configuration** and set:
 - **Serial Port 1 Address** to [Disable]
 - **Serial Port 2 Address** to [Disable]
7. Navigate to **Chipset > SouthBridge Configuration** and set:
 - **GbE LAN Boot** to [Enabled]
8. Navigate to **Exit** and select **Exit and Save**. At the prompt, select **OK**.
9. Press the Delete key as the server automatically reboots to re-enter BIOS setup.
10. Navigate to **Boot > Boot Device Priority** and set:
 - **1st Boot Device** to [CD/DVD]
 - **2nd Boot Device** to [SATA]. (This will not show up for systems without a hard drive.)
 - **3rd Boot Device** to [Network]
 - **4th Boot Device** to [Disabled]
11. Navigate to the main screen and select **Save and Exit Setup**. At the prompt, select **OK**.
12. Proceed to the DVD Cold Start Instructions (section 5.1) in Step 3, below.

4.2 BIOS Version Q67AX

1. Power on the server and immediately press the F2 key as the system boots to enter the BIOS setup.
2. When the BIOS Setup Utility opens, press the F3 key to access **Optimized Defaults** and set:
 - **Load Optimized Defaults?** to **Yes**
3. Navigate to the **Main** tab and set the date and time using Greenwich Mean Time (GMT).
4. Navigate to the **Advanced** tab and set:

- **Launch LAN1 PXE OpROM to Enabled**
 - **Launch LAN2 PXE OpROM to Enabled**
5. Navigate to the **Save and Exit** tab.
 - Select **Save Changes and Reset**
 - Select **Yes for Save configuration and reset?**
 6. As the system reboots, press the F2 key to return to the BIOS setup.
 7. Navigate to **Advanced > SATA Configuration** and set:
 - **SATA Mode to IDE Mode**
 - **Serial-ATA Controller 0 to Enhanced**
 8. Press **ESC** and navigate to **Advanced > CPU Configuration**. Set:
 - **Hyper-Threading to Disabled**
 - **Intel Virtualization Technology to Enabled**
 9. Press **ESC** and navigate to **Chipset > North Bridge**. Set:
 - **VT-d to Enabled**
 10. Press **ESC** and navigate to the **Boot** tab. Set the **Boot Option Priorities** as follows:
 - **Boot Option #1:** [select the DVD drive]
 - **Boot Option #2:** [select the hard drive]
 - **Boot Option #3:** [IBA GE Slot]
 11. Navigate to **Save and Exit > Save Changes and Reset**. At the prompt, select **Yes** for **Save configuration and reset?** Wait as the server reboots.
 12. Proceed to the DVD Cold Start Instructions (section 5.1) in Step 3, below.

4.3 BIOS Version BLH6710H

1. Power on the server and immediately press the Delete key or F2 key as the system boots to enter the BIOS setup.
2. When the BIOS Setup Utility opens, press the F9 key to **Load Defaults**. Select **Y** to Load BIOS Defaults.
3. Navigate to **Main** and set date and time using Greenwich Mean Time (GMT).
4. Navigate to **Configuration > SATA Drives** and press ENTER. Set:
 - **Chipset SATA to Enable**

- **Chipset SATA Mode** to **AHCI**
 - **S.M.A.R.T.** to **Enable**
 - **eSATA Ports** to **Disable**
5. Press **ESC** to return to the **Configuration** menu.
 6. Navigate to **Fan Control & Real-Time Monitoring > CPU Fan** and press **ENTER**. Set:
 - **Control Mode** to **Manual**
 - **Minimum Duty Cycle** to **100**
 7. Navigate to **Security** and set:
 - **Execute Disable Bit** to **Enable**
 - **Intel Virtualization Technology** to **Enable**
 8. Navigate to **Power** and set:
 - **Enhanced Intel SpeedStep Technology** to **Enable**
 - **After Power Failure** to **Last State**
 9. Navigate to **Boot** and set:
 - **Boot Device Priority** to:
 - Optical Drive
 - Hard Disk Drive
 - Network
 - **Boot to Removable Devices** to **Disable**
 - **USB Boot** to **Disable**
 10. Navigate to **Exit > Exit Saving Changes**. At the prompt, select **Y**.
 11. Proceed to the DVD Cold Start Instructions (section 5.1) in Step 3, below.

4.4 BIOS Version JGIBX10J

1. Power on the server and immediately press the Delete key or F2 key as the system boots to enter the BIOS setup.
2. When the BIOS Setup Utility opens, press the F9 key to **Load Defaults**. Select **Y** to Load BIOS Defaults.
3. Navigate to **Main** and set date and time using Greenwich Mean Time (GMT).
4. Navigate to **Configuration > On-board Drive** and press **ENTER**. Set:

- **Serial Port** to **Disable**
5. Press the ESC key, navigate to **Configuration > SATA Drives** and press ENTER. Set:
 - **Chipset SATA** to **IDE**
 - **S.M.A.R.T.** to **Enable**
 - **eSATA Ports** to **Disable**
 6. Navigate to **Security** and set:
 - **XD Technology** to **Enable**
 - **Intel Virtualization Technology** to **Enable**
 7. Navigate to **Power** and set:
 - **Enhanced Intel SpeedStep Technology** to **Enable**
 - **After Power Failure** to **Last State**
 8. Navigate to **Boot** and set:
 - **Boot Device Priority** to:
 - Optical Drive
 - Hard Disk Drive
 - Network
 - **Boot to Removable Devices** to **Disable**
 - **USB Boot** to **Disable**
 9. Navigate to **Exit > Exit Saving Changes**. At the prompt, select **Y**.
 10. Proceed to the DVD Cold Start Instructions (section 5.1) in Step 3, below.

4.5 Visual BIOS Version D33217GKE Intel (MicroServer)

ASTi recommends using a mouse to Configure the BIOS on Intel D33217GKE. The instructions assume the use of a mouse.

1. Power on the server and immediately press the F2 key as the system boots to enter the BIOS setup.
2. Click **Load Defaults** and click **Yes** to confirm.
3. Click **Advanced Setup**.
4. Navigate to **Main** and set the date and time using Greenwich Mean Time (GMT).
5. Navigate to **Cooling > Settings** and set:

- **System FanControl to Balanced**
6. Navigate to **Power > Secondary Power Settings** and set:
 - **After Power Failure > Power On**
 7. Click **Exit** and select **Yes** to save changes.
 8. Proceed to the USB Flash Drive Cold Start Instructions (section 5.2) in Step 3, below.

5 Step 3: Cold Start

Warning: Performing the following cold start procedure will cause complete erasure of the system hard drive. This includes the system hard drive. Follow the instructions in Step 1: Backup (chapter 3) to prevent data loss.

For servers with a DVD drive, follow the DVD Cold Start Instruction. For the MicroServer, follow the USB Cold Start instructions.

5.1 DVD Cold Start Instructions

1. Power on the server via the **Power** switch on the chassis.
2. Insert the **ASTi DVD** and reboot by pressing the **Reset** button on the front of the chassis.
3. At the **Boot** prompt, press ENTER.
4. Remove the **ASTi DVD** when it is ejected.
5. Insert the **RHEL DVD** and select **OK**.
6. Wait for the installation to complete. When prompted, insert the **ASTi DVD** and press ENTER.
7. Wait for confirmation that the software installation is complete and press ENTER to continue.
8. Remove the **ASTi DVD**. The server will power off.
9. Power on the server and log in as root.
10. Configure the IP address:

```
ace-net-config -a xxx.xxx.xxx.xxx -n yyy.yyy.yyy.yyy
```

where `xxx.xxx.xxx.xxx` is the IP address and `yyy.yyy.yyy.yyy` is the netmask.

This sets the IP address and netmask for Eth0, which is used to access the Voisus web interface via a browser to complete the network setup.

11. For more network settings, type:

```
ace-net-config -h
```

12. Reboot the server to activate the changes:

```
reboot
```

5.2 USB Flash Drive Cold Start Instructions

Use the following steps to cold start a MicroServer.

1. Turn off the MicroServer.
2. Insert the **ASTi USB Cold Start Flash Drive**.
3. Turn on the MicroServer.
4. Press F10 to access the Boot Disk menu.
5. Select the option to boot off of the USB drive and press ENTER.
6. At the prompt, type `usb` and press ENTER.
7. When prompted, remove the **ASTi USB Cold Start Flash Drive**.
8. Press ENTER to complete the installation and restart the MicroServer.
9. Log in as root.
10. Configure the IP address:

```
ace-net-config -a xxx.xxx.xxx.xxx -n yyy.yyy.yyy.yyy
```

where `xxx.xxx.xxx.xxx` is the IP address and `yyy.yyy.yyy.yyy` is the netmask.

This sets the IP address and netmask for Eth0, which is used to access the Voisus web interface via a browser to complete the network setup.

11. For more network settings, type:

```
ace-net-config -h
```

12. Reboot the server to activate the changes:

```
reboot
```

6 Step 4: Restore

Restore the data saved in Step 1: Backup (chapter 3) via the Voisus web interface.

1. Using a web browser on the same network as the Voisus server, enter the Voisus server's IP address in the URL bar.
2. Log in:
Username: admin
Password: astirules
3. On the start page, navigate to Configuration > System Backup.
4. Click the **Choose File** button and select your backup from the file browser.
5. Click the **Restore** button and wait for confirmation that the data has been successfully restored.