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# **ASTi**

## **Voisus Server**

### **Cold Start Procedure**

**Document: DOC-05-VS-CS-1**



Product Name: Voisus Server

ASTi Voisus Server Cold Start Procedure

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ASTi

500 A Huntmar Park Drive

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Red Hat® Enterprise Linux®

Red Hat® Subscription

ASTi's ACE software is designed to run on an installation of Red Hat® Enterprise Linux® client. This ensures optimal interoperability with ASTi's ACE software, host routing software and external communications servers. As such included in the Cold Start DVDs is the complete installation of Red Hat® Enterprise Linux® client. This software **is not** activated to a current Red Hat subscription. It is the end users responsibility to activate their subscription and connect to the Red Hat Network. The Red Hat subscription will provide the end user with support, maintenance, software and security updates. For details on Red Hat activation see the Red Hat web site:

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# Table of Contents

- 1.0. Introduction ..... 1
- 2.0. Requirements ..... 2
- 3.0. BIOS Configuration ..... 3
  - 3.1. Configuring the BIOS version Q35AX American Megatrends ..... 3
  - 3.2. Configuring the Small Form Factor with BIOS version BLH6710H ..... 5
  - 3.3. Configuring the Small Form Factor with BIOS version JGIBX10J ..... 7
- 4.0. Cold Start Procedure ..... 8
  - 4.1. Installing RHEL and ASTi Software ..... 8
- 5.0. Installing the Security Software Package ..... 10



## 1.0. Introduction

The cold start procedure described in this document allows users to build Voisus Server system software from scratch. There are three main reasons for using the cold start procedure:

1. Installing the latest software version
2. Rebuilding a damaged hard disk
3. Creating spare hard disks



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

## 2.0. Requirements

**Important:** The cold start procedure will erase the system hard drive. Therefore, the user must backup the system configuration, complete the cold start, and then restore the system configuration.

This cold start procedure is only for use with the Voisus Server only. The following items are needed for the cold start:

- Voisus Server
- ASTi DVD
- RHEL DVD
- Connected power
- Connected monitor
- Connected keyboard
- Connected network

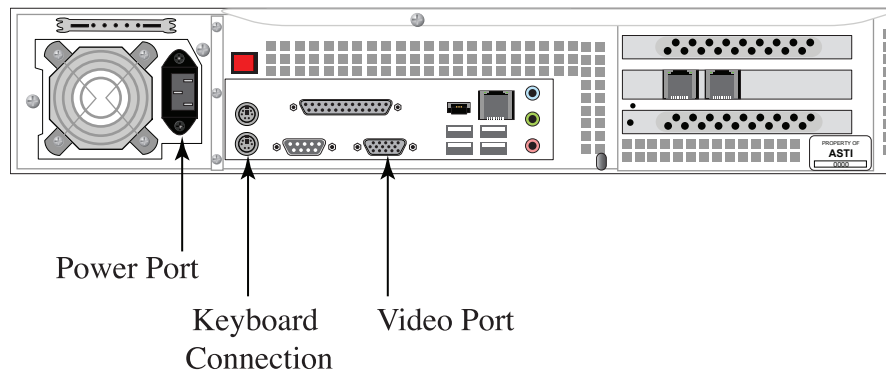


Figure 1: Voisus Server Setup



***Remove all plastic packaging from the platform before proceeding with the Cold Start procedure.***

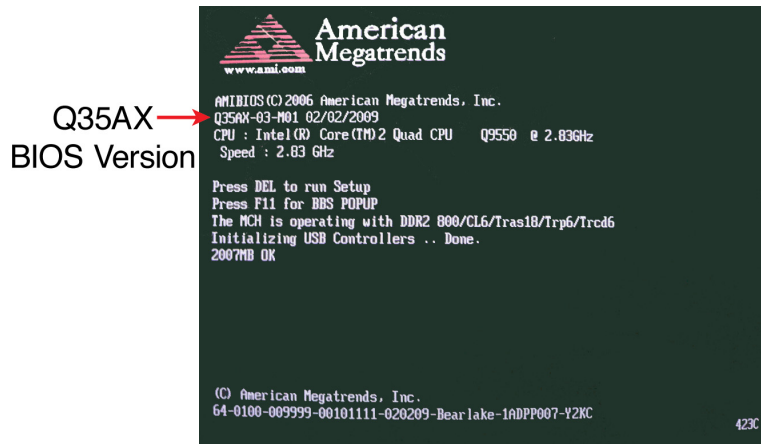
## 3.0. BIOS Configuration

During initial system boot-up, pause the screen to view the version number of the BIOS. The BIOS versions are:

- Q35AX American Megatrends
- BLH6710H
- JGIBX10J

**Note:** By default the USB keyboard is disabled in the BIOS. If you are using a USB keyboard during the Cold Start Procedure, you must enable it in the BIOS.

### 3.1. Configuring the BIOS version Q35AX American Megatrends



1. If you have not already done so, attach a monitor, keyboard and power cable to the server.
2. Power on the server and immediately press the '**Del**' key as the system starts to enter the BIOS Setup.
  - 2a. The BIOS Setup Utility will open with a menu across the top. Navigate to **Exit** and select **Load Optimized Defaults**.
3. Navigate to **Main**.
  - 3a. Set Date and Time. Note set the time value to Greenwich Mean Time (GMT). GMT = Eastern Standard Time + 5 hours
4. Navigate to **Advanced** to **CPU Configuration** and set the following:
  - Intel(R) SpeedStep(tm) tech** to **[Disabled]**
  - Hardware Prefetcher** to **[Disabled]**
  - Adjacent Cache Line Prefetch** to **[Disabled]**

5. Navigate to **Advanced** to **IDE Configuration**.
  - 5a. Set **SATA#1** to **[Enhanced]**.
  - 5b. Set **Configure SATA#1** to **[IDE]**.
6. Navigate to **Advanced** and then to **SuperIO Configuration** and set **Serial Port 1 Address** to **Disable** and **Serial Port 2 Address** to **Disable**.
7. Navigate to **Chipset** to **SouthBridge Configuration** and set **GbE LAN Boot** to **[Enabled]**.
8. Navigate to the **Exit** field and select **Exit and Save**. After the prompt opens, select **OK**.
9. As the server reboots automatically, immediately press the ‘**Del**’ key as the system starts to enter the BIOS Setup.
10. Navigate to the **Boot** field and then to the **Boot Device Priority**. Set the Boot Device Priority as follows:
  - 1st Boot Device **[CD/DVD]**
  - 2nd Boot Device **[SATA]** Note: This will not show up for systems without a hard drive.
  - 3rd Boot Device **[Network]**
  - 4th Boot Device **[Disabled]**
11. Navigate to the main screen and select **Save and Exit Setup**. After the prompt opens, select **OK**.

### 3.2. Configuring the Small Form Factor with BIOS version BLH6710H

1. If you have not already done so, attach a monitor, keyboard and power cable to the server.
2. Power on the server and immediately press the '**Del**' or '**F2**' key as the system starts to enter the BIOS Setup.
  - 2a. The BIOS Setup Utility will open with a menu across the top. Select '**F9**' to **Load Defaults**. Select '**Y**' to Load BIOS Defaults.
3. Navigate to **Configuration**. Navigate to **SATA Drives** and press enter.
  - 3a. Set **Chipset SATA** to **Enable**.
  - 3b. Set **Chipset SATA Mode** to **AHCI**.
  - 3c. Set **S.M.A.R.T.** to **Enable**.
  - 3d. Set **eSATA Ports** to **Disable**.

Press '**esc**' to exit the SATA Drives section. You should still be in the Configuration section.
4. Navigate to **Fan Control & Real-Time Monitoring**.
  - 4a. Select **CPU Fan** and press enter.
  - 4b. Set **Control Mode** to **Manual**
  - 4c. Set **Minimum Duty Cycle** to **100**.
5. Navigate to **Security** section.
  - 5a. Set **Execute Disable Bit** to **Enable**.
  - 5b. Set **Intel<sup>®</sup> Virtualization Technology** to **Enable**.
6. Navigate to **Power**.
  - 6a. Set **Enhanced Intel SpeedStep<sup>®</sup> Technology** to **Enable**.
  - 6b. Set **After Power Failure** to **Last State**.

7. Navigate to **Boot**.
  - 7a. Set the **Boot Device Priority** as follows:
    - Optical Drive
    - Hard Disk Drive
    - Network
  - 7b. Set the **Boot to Removable Devices** set to **Disable**.
  - 7c. Set the **USB Boot** to **Disable**.
8. Navigate to **Exit** section and select **Exit Saving Changes**. After the prompt opens, select **'Y'**.

### 3.3. Configuring the Small Form Factor with BIOS version JGIBX10J

1. If you have not already done so, attach a monitor, keyboard and power cable to the server.
2. Power on the server and immediately press the '**Del**' or '**F2**' key as the system starts to enter the BIOS Setup.
  - 2a. The BIOS Setup Utility will open with a menu across the top. Select '**F9**' to **Load Defaults**. Select '**Y**' to Load BIOS Defaults.
3. Navigate to **Configuration**. Navigate to **On-board Drives** and press enter.
  - 3a. Set **Serial Port** to **Disable**.  
Press '**esc**' to exit the On-board Drives section. You should still be in the Configuration section.
4. Navigate to **Configuration**. Navigate to **SATA Drives** and press enter.
  - 4a. Set **Chipset SATA** to **IDE**.
  - 4b. Set **S.M.A.R.T.** to **Enable**.
  - 4c. Set **eSATA Ports** to **Disable**.
5. Navigate to **Security** section.
  - 5a. Set **XD Technology** to **Enable**.
  - 5b. Set **Intel<sup>®</sup> Virtualization Technology** to **Enable**.
6. Navigate to **Power**.
  - 6a. Set **Enhanced Intel SpeedStep<sup>®</sup> Technology** to **Enable**.
  - 6b. Set **After Power Failure** to **Last State**.
7. Navigate to **Boot**.
  - 7a. Set the **Boot Device Priority** as follows:
    - Optical Drive
    - Hard Disk Drive
    - Network
  - 7b. Set the **Boot to Removable Devices** set to **Disable**.
  - 7c. Set the **USB Boot** to **Disable**.

Navigate to **Exit** section and select **Exit Saving Changes**. After the prompt opens, select '**Y**'.

## 4.0. Cold Start Procedure

**Note:** Prior to the software installation, ensure that the “Boot Priority” is set in accordance with the proper BIOS instructions previously outlined in this document. Otherwise, the Voisus Server will not boot from the disc and automatically enter the installation routine.

### 4.1. Installing RHEL and ASTi Software



**Warning:** Performing the following cold start procedure will cause complete erasure of the system hard drive. This includes the Comm plans, Facilities, Scenarios, RMS users, last installed Scenario, and DIS settings.

You must backup the system configuration or it will be completely erased. See section **1.4.9. Backing Up the System** in the Voisus Server Manual (DOC-05-VS-OM) for more details.

Follow the steps below to install the RHEL and ASTi Software.

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. The prompt will say “boot:” then press enter.
4. The prompt will eject the **ASTi DVD**. Remove the disc.
5. Insert the **RHEL DVD** and select ‘Ok’.
6. Wait for the installation to complete. Screen will read “Finish caching RHEL Repo. Please insert ASTi Cold Start disk. Press [ENTER] key when ready.”
7. Insert **ASTi DVD** and press enter.
8. Wait as the software installs. Screen will display “Complete” when finished.
9. Press [ENTER] key to continue.
10. Remove the **ASTi DVD**. The system will power off.
11. Power on the system and the login prompt will open.
12. Login with:

```
username: root          password: abcd1234
```

13. Set the IP address configuration. At the prompt type:

```
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 Eth 0 which is used to access the Remote Management System (RMS) via a browser to complete the network setup.

14. *Optional*: For more network setup options type:

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

15. Reboot the server by typing

```
reboot
```

to activate the changes.

**Note:** If you do not setup Eth 0, it will automatically default to the DHCP mode and will query a DHCP server for the IP address.

If you backed up the system configuration before installing the software you must now restore the backup files. See section **1.4.9. Backing Up the System** in the Voisus Server Manual (DOC-05-VS-OM) for more details.

## 5.0. Installing the Security Software Package

This section is optional and requires the ASTi Telestra Security DVD.

Follow the procedure for installing security software packages.

1. At the local host login as:

Username: **root** (must be lowercase)

Password: **abcd1234**

2. Insert the DVD labeled “**Telestra Security**” and type

```
mount /dev/cdrom /media
```

and hit enter.

3. Then type

```
rpm --import /etc/pki/rpm-gpg/*
```

4. Then type

```
rpm -Uv --force --nodeps /media/*.rpm
```

and hit enter.

5. Execute the ASTi post installation script

```
/usr/local/bin/secure_telestra.sh
```

and hit enter.

Note: Results are stored in a log file as shown on the console.

6. When installation is complete type

```
eject
```

7. *Optional:* To enable the ability to SSH into the ‘astadmin’ user account (not as root) from remote computers you must enter the file and edit it. Type

```
nano /etc/hosts.allow
```

Use the arrow keys to navigate to the bottom of the file and enter the following line

```
sshd : ALL : allow
```

To save the file or “write out” press ‘control + o’ and then press enter.

Then press control + x to exit the file.

8. Remove the cached installation directory with the following command:

```
rm -Rf /var/csrepos
```

9. Reboot the platform for the changes to take effect. After the reboot you can no longer login as root. You must login as:

Username: **astiadmin**

Password: **admin**

This default username and password must be changed every **60** days.