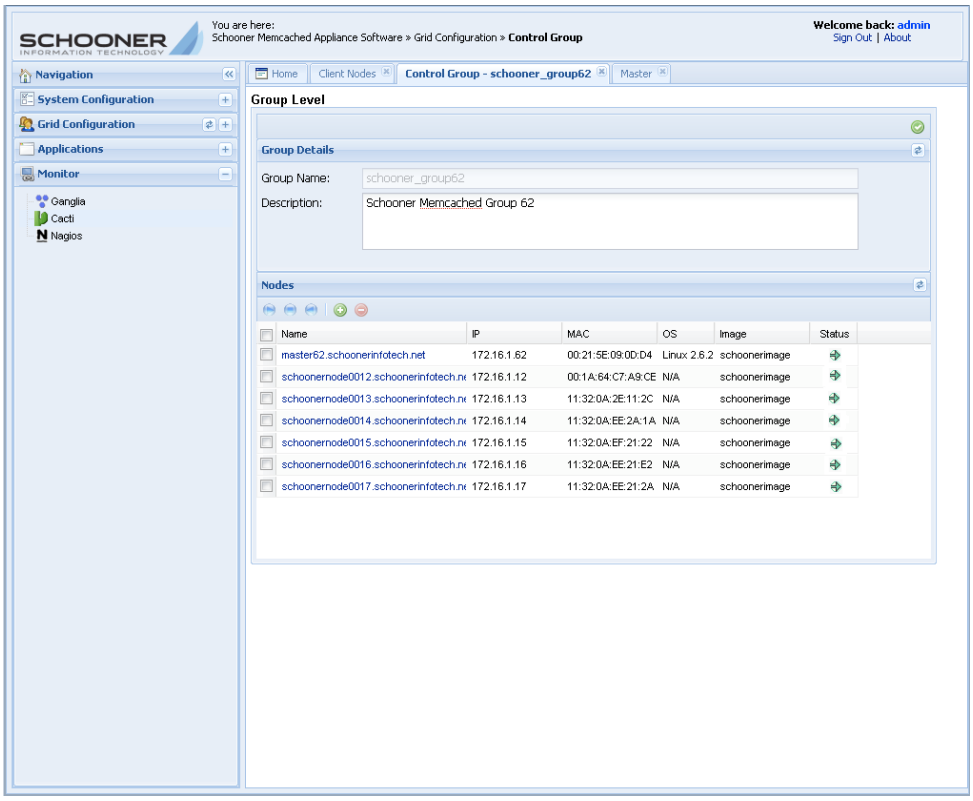
Installation & Setup Guide

Schooner Appliance for MySQL Enterprise™

Version 2.0



SCHOONER
INFORMATION TECHNOLOGY

Technical Support

Go to the IBM support Web site at http://www.ibm.com/systems/support/to check for technical information, hints, and tips.

Documentation ID: I-I-v2.0-10120_619-IG-003

Schooner Appliance for MySQL Enterprise™ – Installation & Setup Guide

Issued November 2009.

Schooner Information Technology
501 Macara Ave., Suite 101
Sunnyvale, CA 94085, USA
Tel: (408) 773-7500 (Main)
(877) 888-5064 (Sales and Support)
Fax: (408) 736-4212

Contents

Chapter 1: Introduction

This Guide explains how to install the Schooner appliance, and prepare it to run MySQL. For information about installing MySQL, and managing and monitoring the Schooner Appliance, see the *QuickStart Guide* and the *Schooner Appliance for MySQL Enterprise™ Application & Administration Guide*.

Hardware and Software Prerequisites

A 1-GB Ethernet network, with two ports configured as ***eth0*** **through** ***eth1***.

If configuring the appliance using the GUI:

A laptop (running Windows or Linux) with Internet Explorer 7.0 (or later), or FireFox 2.0 (or later).

If configuring the appliance using the CLI:

A monitor and keyboard.

Hardware Overview

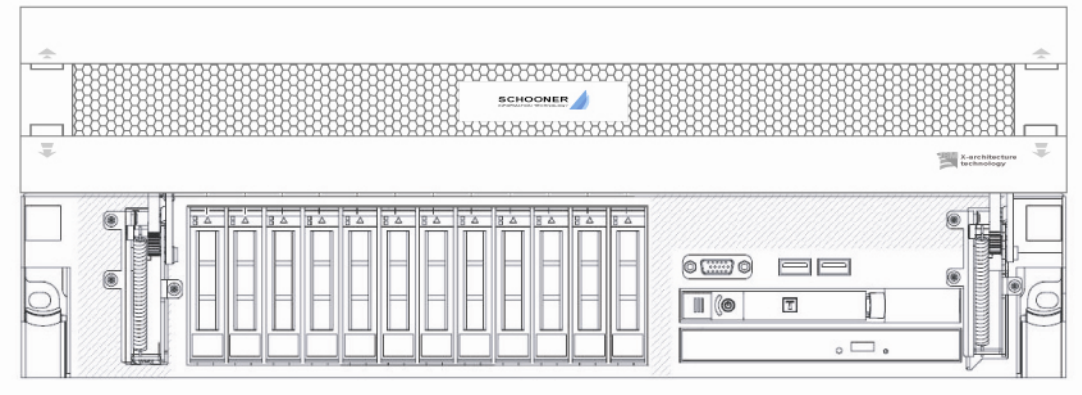
This section provides a brief physical tour of the Schooner appliance. For detailed descriptions of all controls, connectors, and indicators, please refer to the IBM *Installation and User's Guide*, included with the rest of the product documentation.

Front Door

Five LEDs are visible through the front door. They are described later in this chapter, as part of the operator information panel description. The balance of the front-panel controls, connectors, and indicators are accessed by raising the front door.

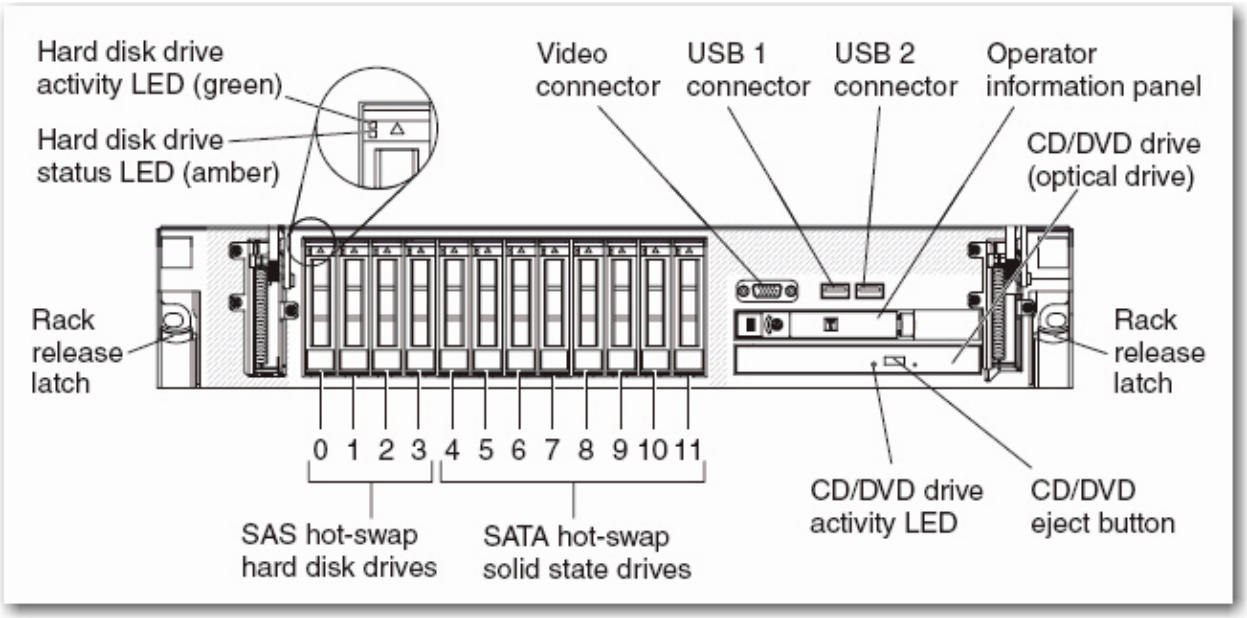
Raise the door by first pressing upward simultaneously on the two release levers (see the following figure).

While continuing to press the levers, swing the spring-loaded door first out, and then up.

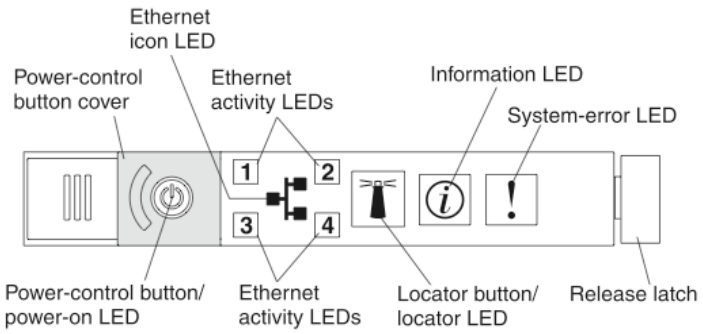


Front Panel

All of the front-panel components, connectors and indicators are shown in the following two figures.



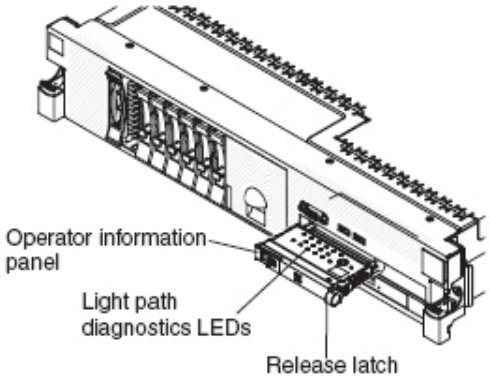
The **operator information panel** controls and indicators are illustrated in the following figure.



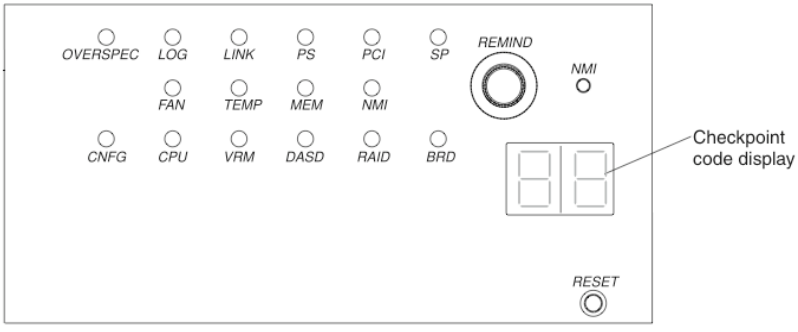
There is a light path diagnostics panel on the top of the operator information panel. To access the diagnostics panel:

Push the release latch, on the right side of the operator information panel, to the left.

Pull the operator panel out from the chassis until the panel's hinge is exposed, and it pivots down.

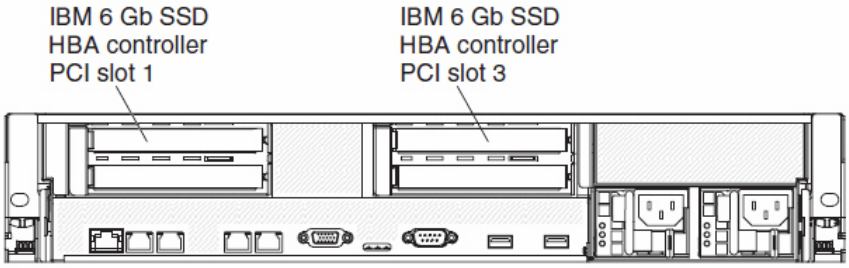


The diagnostics panel is shown in the following figure. Refer to the IBM *Problem Determination and Service Guide*, on the Documentation CD, for instructions in the use of the diagnostics panel.

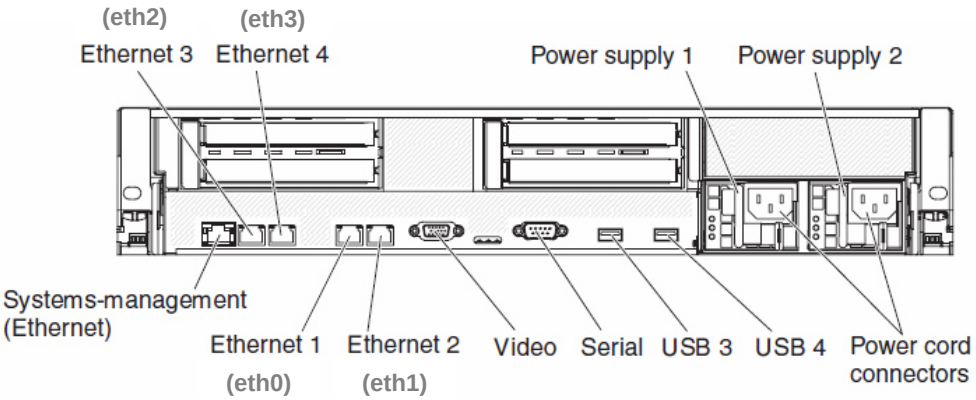


Rear Panel

The following figure illustrates the PCI connectors and LED indicators on the real panel of Schooner Appliance for MySQL Enterprise.



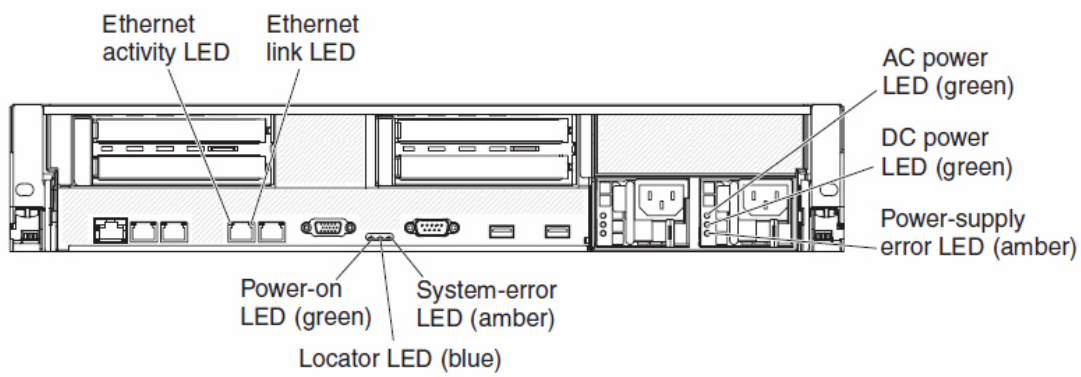
The following figure highlights the addtional connectors on the real panel of the Schooner appliance.



- **Ethernet connectors -** Connect the appliance to a network.
- **Power-cord connectors -** Connect the appliance to power sources. The two must always be connected to different power sources for system fail-over.
- **USB connectors -** Connect USB devices, e.g., USB mouse, keyboard, etc. to the appliance.
- **Serial connector -** Connect a 9-pin serial device to this appliance. The serial port is shared with the integrated management module (IMM). The IMM can take control of the shared serial port to perform text console redirection and to redirect serial traffic, using Serial over LAN (SOL).
- **Video connector -** Connect the appliance to a monitor. The video connectors on the front and rear of the appliance can be used simultaneously.

  Note: The maximum video resolution is 1280 x 1024 at 75 Hz.
- **Systems-management Ethernet connector -** Connect the appliance to a network for systems-management information control. This connector is used only by the IMM.

The figure below illustrates the LEDs on the rear panel of the Schooner appliance.



- **Ethernet activity LEDs** - When any of the LEDs is illuminated, it indicates that the appliance is transmitting to or receiving signals from the Ethernet LAN connected to the corresponding Ethernet port.
- **Ethernet link LEDs** - When illuminated, they indicate that there is an active link connection on the 10BASE-T, 100BASE-TX, or 1000BASE-TX interface for the Ethernet port.
- **AC power LED** - Each hot-swap power supply has an AC power LED and a DC power LED. When the AC power LED is illuminated, it indicates that sufficient power is coming into the power supply through the power cord. During typical operation, both the AC and DC power LEDs are illuminated.
- **DC power LED** - Each hot-swap power supply has a DC power LED and an AC power LED. When the DC power LED is illuminated, it indicates that the power supply is supplying adequate DC power to the appliance. During typical operation, both the AC and DC power LEDs are illuminated.
- **Power-supply error LED** - When illuminated, it indicates that there is a power failure.
- **System-error LED** - When illuminated, it indicates that a system error has occurred. An LED on the light path diagnostics panel is also illuminated to help isolate the error. This LED is the same as the system-error LED on the front of the appliance.
- **Locator LED** - Visually locate the given appliance among other appliances. Use the IBM Systems Director to light this LED remotely. This LED is the same as the locator LED on the front of the appliance.
- **Power-on LED** - The states of the power-on LED are as follows:
  - **Off** - AC power is not present or the power supply or the LED itself has failed.
  - **Flashing rapidly (4 times per second)** - The appliance is turned off and is not ready to be turned on. The power-control button is disabled. Approximately 3 minutes after the appliance is connected to AC power, the power-control button becomes active.

- **Flashing slowly (once per second) -** The appliance is powered off and is ready to be powered on. You can press the power-control button to turn it on.
- **Illuminated** - The appliance is powered on.
- **Fading on/off** - The appliance is in a reduced-power state. To wake the appliance, press the power-control button or use the integrated management module (IMM) Web interface.

Chapter 2: Installation, Cabling and Power-up

Installation

The Schooner appliance must be installed in an industry-standard, 19-inch equipment rack. Please refer to the IBM *Rack Installation Instructions*, included with the rest of the product documentation.

Warning: Do not install this appliance in the top 2U's of the rack. There will not be sufficient clearance to raise the front door, and access the front panel.

Connections

Connect the power cords between the power supplies and an appropriately-rated power source.

Do not connect any of the network interfaces at this time.

Boot the Server

Schooner Appliance for MySQL Enterprise runs on the IBM System x Express Model 3650 M2 (part number: 7838-A4x).

The servers are equipped with dual power supplies that have an IEC C14 connector. Schooner ships the product along with a 6-foot power cord with either an IEC C13 connector (often used for 230VAC power distribution units) or NEMA 5-15 connector (used in the US for 120VAC power distribution units). However, Schooner does not supply power cords and keyboards appropriate for all countries in Europe, such as the CEE 7-7 power connector used in France and Germany and the UK BSI1363 power connector used in the United Kingdom and its former colonies. If other connectors or lengths are required, the customer needs to procure them locally on their own expense.

The dual power supplies are designed for system failover in case of power failure. Therefore, they must be connected to two independent power grids so that if there is power outage in one power grid, there will still be power coming in to keep the system operating.

Note: It takes approximately 3 minutes, from the time that the power supplies are connected to an AC power source, for the Power button to become active. The LED, in the center of the Power button, flashes quickly (4 times per second) to indicate that the Power button is inactive. When the flashing LED slows to one flash per second, it indicates that the Power button is active, and the server can be turned on.

1. Raise the front door and press the Power button. Various indicators will flash as the appliance powers up.
2. Wait at least 5 minutes for the system to complete the boot process.
3. If the appliance fails to boot properly (indicated by non-operation or a lit System-error LED), refer to the IBM Problem Determination and Service Guide on the

Documentation CD.

Chapter 3: Configuration

The Schooner appliance can be configured using either Schooner's GUI, or the Command Line Interface.

Both interfaces offer a "FirstTime Wizard", to aid in the configuration process. The GUI also supports the *Schooner Administrator*, which is an administration system that allows nodes to be maintained from a "Schooner Master Node", via a Web browser.

The CLI provides no *Schooner Administrator* support. All nodes must be maintained without the support of the Schooner Master Node.

Required Network Information

Before continuing with the configuration, obtain the network information listed in the following table. This information is required to configure the master node.

Property	Description	eth0 (application & administration subnet)
IP	The master node's IP address on each subnet	
Mask	Subnet mask for each subnet	
Gateway	The gateway IP address on each subnet	
Bootproto	Static or DHCP	
MTU	Network MTU	
Host Domain	The Internet or intranet domain in which your Schooner system will run.	

The Schooner Appliance has four Network Interface Cards (NICs). Their purposes are described in the following table.

NIC	Speed	Description
eth0	1 GB/sec	Administration subnet. May also be used for MySQL application traffic.
eth1~eth3	1 GB/sec	Application subnets

Configure the Appliance Using the GUI

Connect the Laptop

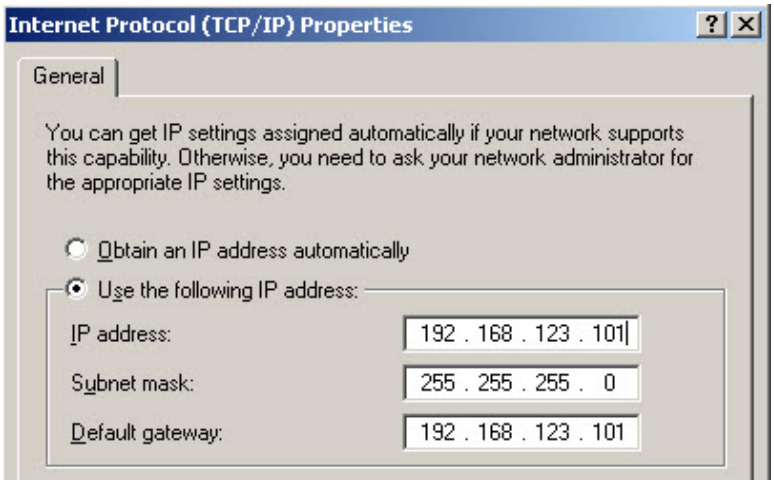
1. Power-up the laptop.
2. Note the laptop's IP configuration, so that it can be restored following the configuration process.
3. Use a standard Ethernet cable to connect the laptop to the eth0 port, on the rear panel of the Schooner appliance.

Initiate the Online Network

Note: The Schooner appliance's default IP address is 192.168.123.100. The steps required to initiate the network may vary, depending on your operating system.

Windows

1. Display the Internet Protocol (TCP/IP) window.
2. Enter the TCP/IP information as shown in the following figure.



3. Go to the Start menu and open the "Command Prompt" window.
4. Type the command: ping 192.168.123.100

   You should see a response from the Schooner server. If the server does not respond, check the network configuration and the cable connections. If the problem persists, refer to the IBM Problem Determination and Service Guide, on the Documentation CD.

Linux

1. Launch a terminal window.
2. Type the command: `ifconfig eth0 192.168.123.101/24`
3. This assigns the laptop client an IP address of 192.168.123.101, with a subnet mask of 255.255.255.0.
4. Ping the server: `ping 192.168.123.100`

   You should see a response from the Schooner server. If the server does not

respond, check the network configuration and the cable connections. If the problem persists, refer to the IBM *Problem Determination and Service Guide*, on the Documentation CD.

Schooner FirstTime Wizard (GUI)

This section describes the process, used by the FirstTime Wizard, to configure the Schooner appliance.

Throughout this process, a red asterisk (*) denotes a field that *must* be changed.

Note: Use the Schooner FirstTime Wizard GUI if you want to use the *Schooner Administrator* to manage your Schooner appliances. Otherwise, go to the "Command Line Interface" section that follows.

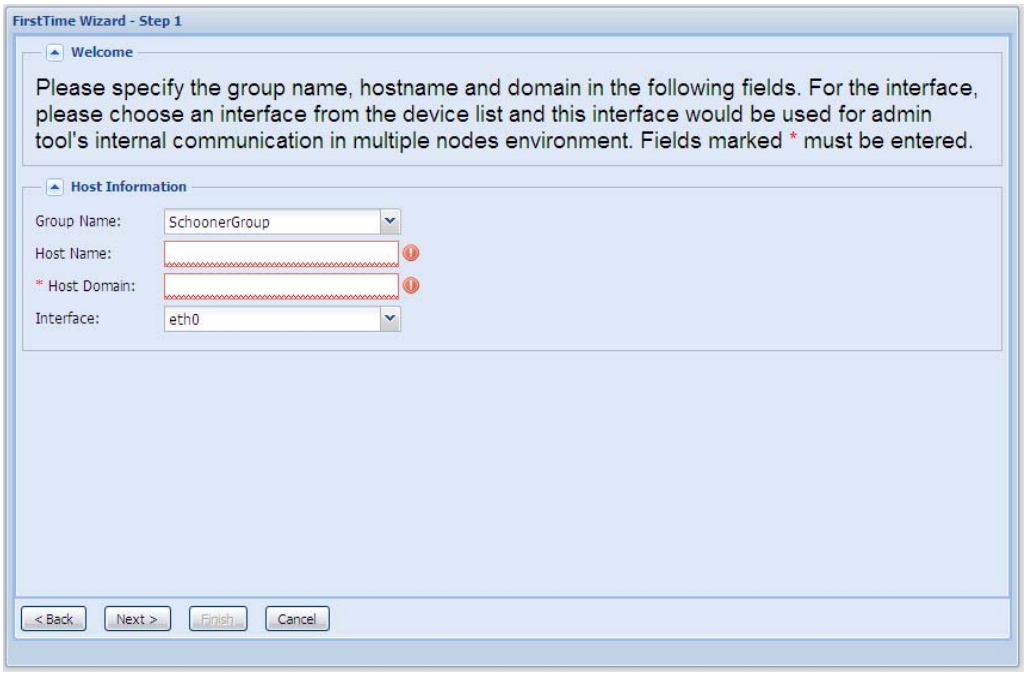
1. Launch a web browser. Enter http://192.168.123.100 in the browser's URL field. The "Schooner Administrator Login" window displays.

   Note: If you don't see a login window, contact IBM Support. (You may be asked to connect a keyboard and monitor to your Schooner Appliance in order to report any error messages.)

2. Log in as user admin with the default password admin, and click Submit.

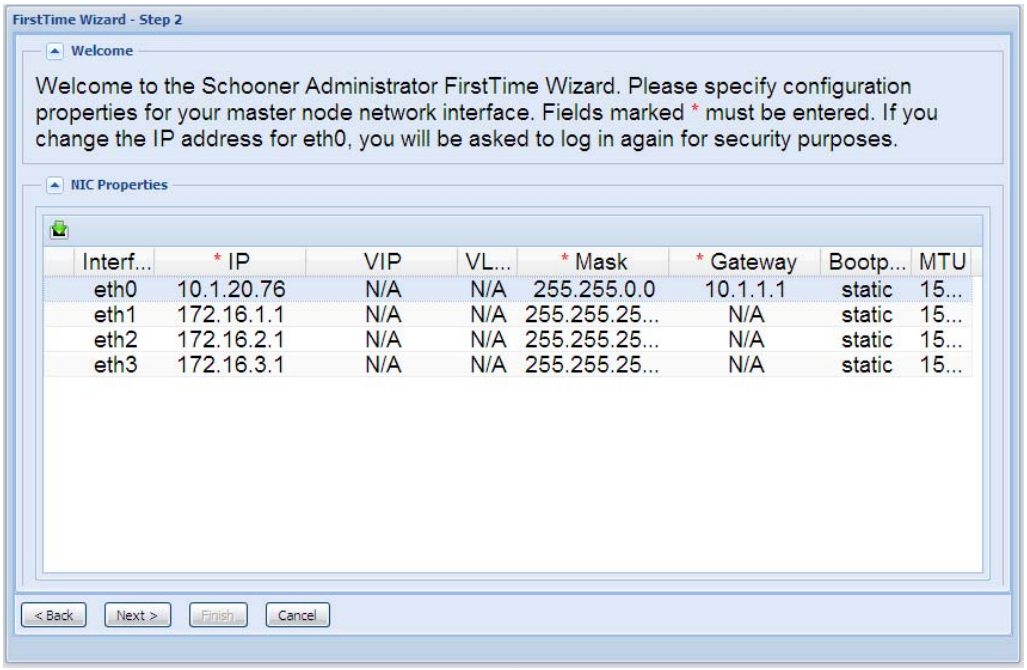
The "License" window displays.

3. To continue with the configuration, accept the license agreement. The first of the Wizard screens displays.
4. Enter the host name; the DNS host domain, and the interface to be used for cluster-wide communication. The table following the figure provides definitions of the required information.

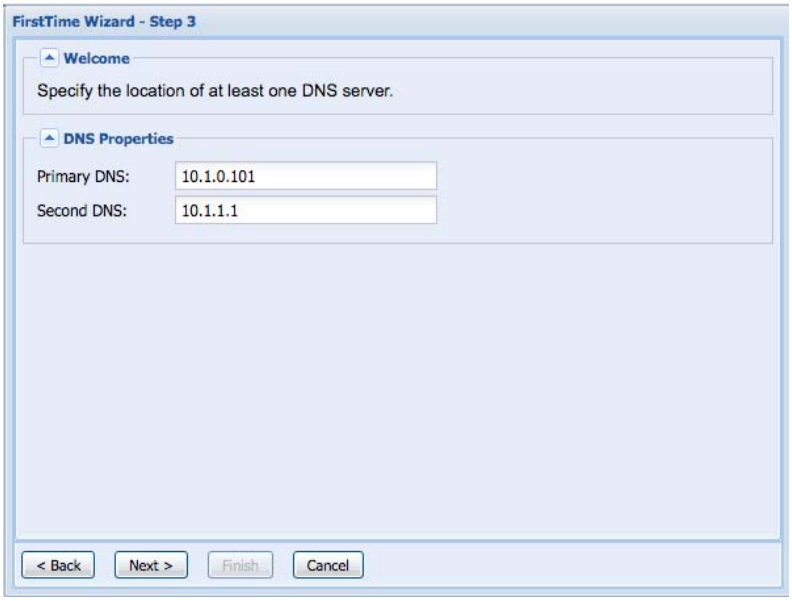


Field	Default	Description
Group Name	schooner_ group	A name for the first administration group. You may accept the default.
HostName	schooner	A name for the server (master node) on the administration subnet. You may accept the default.
* Host Domain		The Internet or intranet domain in which the Schooner system will run.
Interface	**eth0**	The interface used for private cluster communication. This interface may also be used for other traffic.

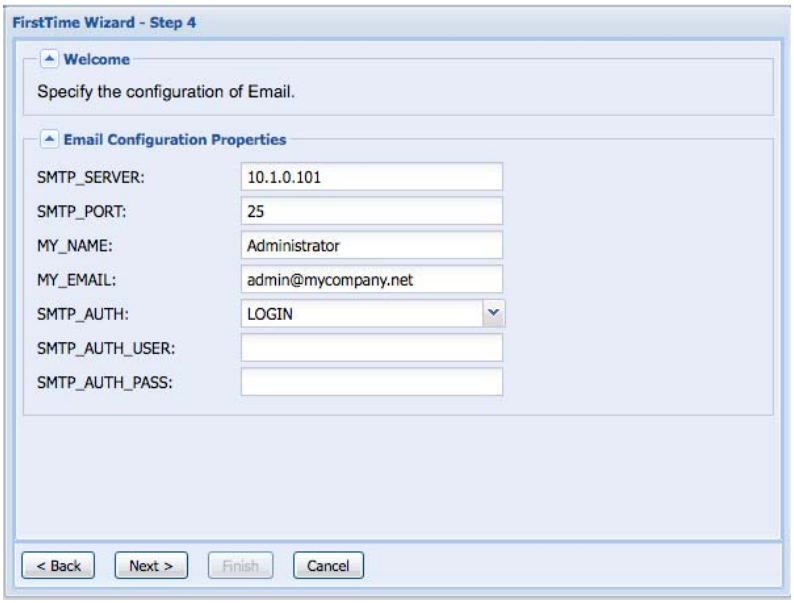
5. Click Next and the "NIC Properties" window displays.
6. Refer back to the table in the "Required Network Information" section, and enter the information for the master node's administration and application subnet.



7. Click Next and the “DNS Properties” window displays.
8. Fill in the IP addresses of the Domain Name Servers. (The Primary DNS is required, the secondary DNS is optional.)

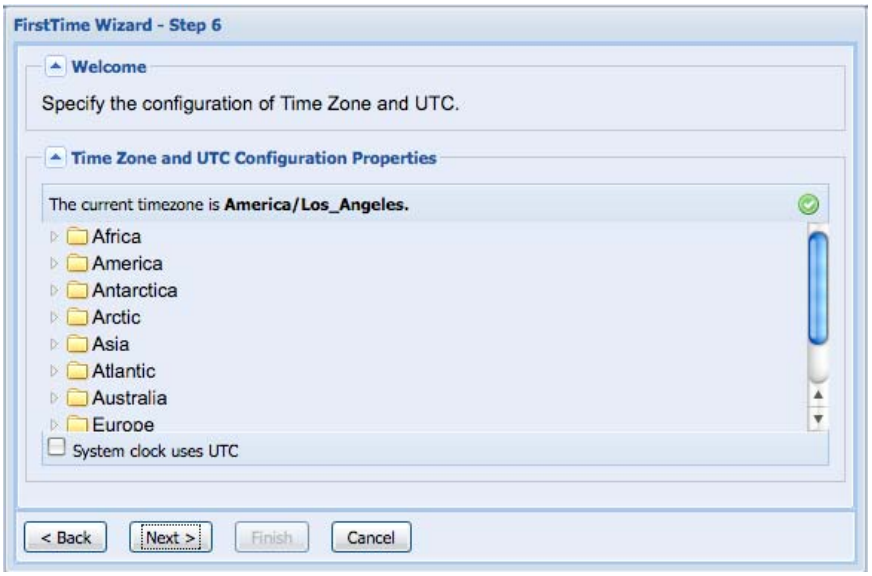


9. Click Next and the “Email Configuration Properties” window displays.
10. The Schooner Administrator supports a “Phone Home” service, through which system logs and tracing information can be sent automatically to IBM Support. This step configures the Schooner Appliance with your site’s email service (including the SMTP server IP address, SMTP server port number, company name and company administration contact email address).

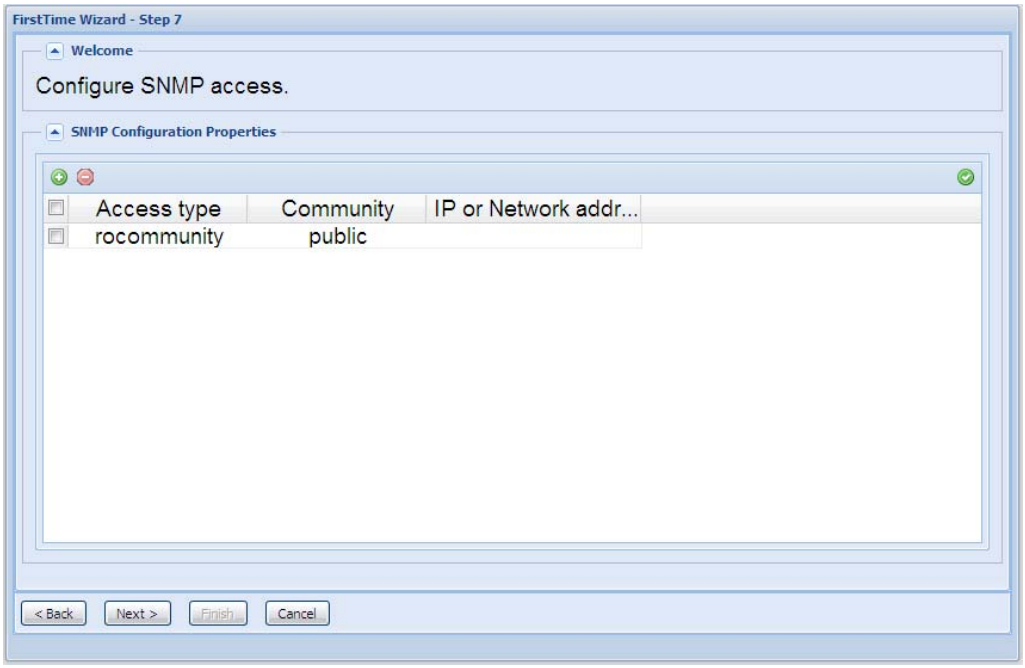


11. Click Next and the "Account Properties" (password) window displays.
12. Change the default password for the administrator account. Passwords may be 1-32 characters in length, and of any character type. The password may be left unchanged, but, for security purposes, Schooner recommends changing the default administrator password.

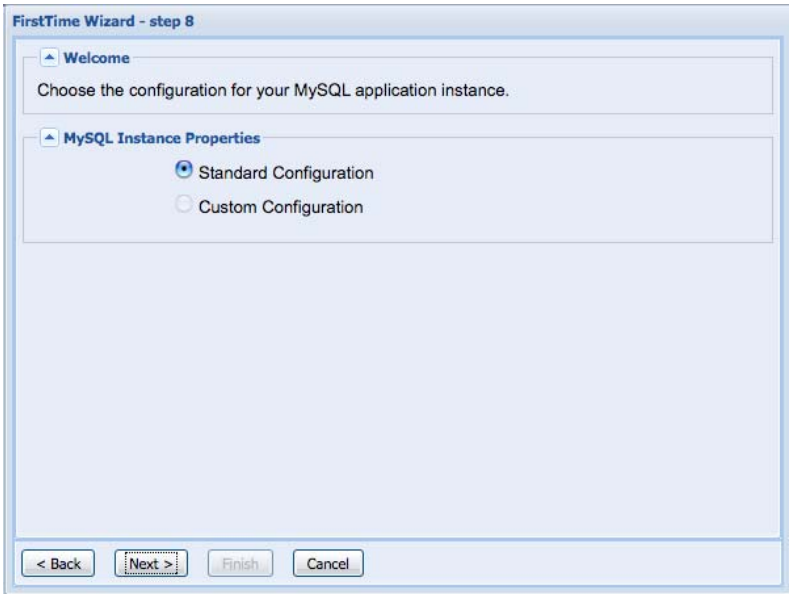
13. Click Next and the "Time Zone" window displays.
14. Configure the time zone for your installation.



15. Click Next and the "SNMP Configuration Properties" window displays.
16. Configure the SNMP access.



17. Click Next and the "MySQL Instance Properties" window displays.
18. Select a MySQL configuration. The standard configuration works in most cases.

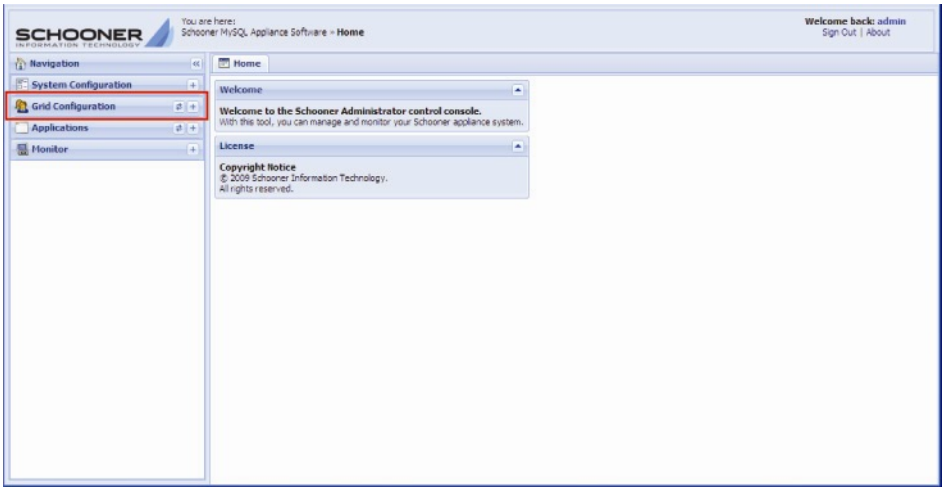


19. Click Next and the "Success" window displays.
The Wizard completes the configuration and redisplays the log-in screen.

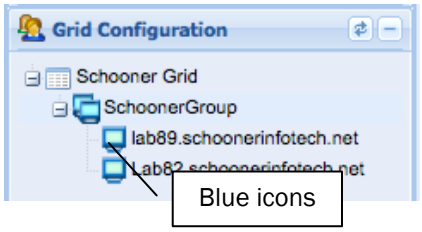
    Note: If an error occurred, click **Display log** to review the installation log. (The Display log button will only be visible in the event of an error.)

20. Log in again, as user admin with the default password admin, and click Submit.
The Schooner Administrator control console displays.

21. Go to the "Grid Configuration" selection, on the left side of the page, and click on the + icon to expand the selection. Then click the refresh icon.



The cluster and master node icons should be blue, signifying that they are operating normally. (If an icon is gray which indicates that the cluster or node is down, contact IBM Support.)



22. Click Sign Out, in the upper right corner of the console, to exit.

Connect to the Network

1. Unplug the Ethernet cable from your laptop. But, leave it connected to the appliance's ***eth0*** port.
2. Plug the free end of the Ethernet cable into the network switch for your administration subnet.

   You can now manage the Schooner appliance from any workstation on the network, as described in the *Schooner Appliance for MySQL Enterprise™ Application & Administration Guide.*
3. Restore your laptop's configuration.

Adding Additional Appliances

At this point, you have installed and configured one appliance, which, by default, is defined as the "master node". Now, you can create a *cluster* by adding additional appliances, and configuring them as "client nodes".

First, physically install and cable the additional appliances. Refer to the rack-mounting and cabling instructions in Chapter 2.

Connect each appliance's ***eth0*** **port** to your application/administration subnet. (You may connect port ***eth1*** if you require multi-gigabit networking.)

If you are using the *Schooner Administrator*, the initialization of the new nodes will be performed via the GUI. If the nodes will be managed using your own administration system, you must initialize each new node using the Command Line Interface**. See** the *Application & Administration Guide* for both the GUI- and CLI-based instructions.

Chapter 4: Configure the Appliance Using the CLI

Connect the Keyboard and Monitor

Connect the keyboard and monitor to their respective connectors, on the rear panel of the appliance.

Schooner FirstTime Wizard (CLI)

1. Using a terminal program like **putty**, connect to the appliance via its ***eth0*** host name or IP address.
2. Log into the appliance with the login user admin and the default password admin.
3. Run the CLI: /opt/schooner/mysql/bin/run_cli_ftw
4. You will be prompted to accept the End User License Agreement. Click Accept to continue the installation. The FTW CLI main screen displays:

```
[admin@localhost bin]$ sudo ./run_cli_ftw y
This product is licensed under the Schooner Beta Test Agreement.
Have you read and agree to the License Agreement?, y)es, n)o y/n [n]: y
+-------------------------------------------------------------+
| Welcome to the Schooner Administrator FirstTime Wizard CLI. |
| The following are the steps for the Schooner FTW:           |
|    1) Hostname and Domain Configuration (Required)          |
|    2) Network Interface Configuration (Required)            |
|    3) DNS Configuration (Optional)                          |
|    4) NTP Configuration (Optional)                          |
|    5) Timezone Configuration (Optional)                     |
|    6) Modify User Password (Optional)                       |
|    7) SMTP Server Configuration (Required)                  |
|    8) SNMP Configuration (Optional)                         |
+-------------------------------------------------------------+
+-----------------------------------------------------------------------------------------+
| Step1. Hostname and Domain Configuration (Required)                                     |
| Hostname and Domain Name configuration is required                                      |
| Please Note:                                                                            |
|   1. This step is required, you will proceed to the Hostname and Domain Name Configuration  |
|   2. This step could change the admin interface that is used for internal management        |
+-----------------------------------------------------------------------------------------+
Hostname and Domain Name Configuration is required, would you like to skip it?, y)es, n)o, b)ack y/n/b [n]:
```

5. Configure hostname, domain name and admin interface:

```
The hostname needs to be changed to (Default "lab76"):
The domain needs to be changed to (Default "schoonerinfotech.net"):
The admin interface needs to be changed to (Default "eth0"):
[Success] Hostname and Domain Name have been reconfigured
+-----------------------------------------------------------------------------------------------+
| Step2. Network Interface Configuration (Required).                                            |
| This step will specify the configuration parameters for your network interfaces.              |
| Please Note:                                                                                  |
|   1. This step is required, you will proceed to the Network Interface Configuration.         |
|   2. If an interface BOOTPROTO is set to "dhcp", all configuration for such interface will   |
|      be ignored. you need login again by new ipaddress or hostname if connect from remote host |
|   3. If the IP address of eth0 is changed, you need login again by new ipaddress or hostname if |
|      connect from remote host                                                                 |
|   4. If an interface is used by mesh core, such interface should not be attached to a bond device |
|      and such interface should not be enabled on VLAN                                         |
+-----------------------------------------------------------------------------------------------+
Nic Configuration is required, would you like to skip it?, y)es, n)o, b)ack y/n/b [n]:
```

6. Select the network interfaces display:

```
+-----------------------------------------+
| ID    Select Actions for Nic configuration |
+-----------------------------------------+
| 1     Show NIC List                     |
| 2     Basic Configuration               |
| 3     Bonding Configuration             |
+-----------------------------------------+
Please select one option from the list above (type e/q to escape): 1
```

7. Select the network interfaces edit menu:

```
+-----------------------------------------------------------------------------------------------------------------------+
| interface  master  ip              vip  vlan  netmask        macaddress         gateway   bootproto  mtu   status   |
+-----------------------------------------------------------------------------------------------------------------------+
| eth0       N/A     192.168.100.23  N/A  N/A   255.255.255.0  00:1A:64:E5:3C:64  N/A       static     1500  up       |
| eth1       N/A     172.16.1.1      N/A  N/A   255.255.255.0  00:1A:64:E5:3C:66  N/A       static     1500  up       |
+-----------------------------------------------------------------------------------------------------------------------+
+-----------------------------------------+
| ID    Select Actions for Nic configuration |
+-----------------------------------------+
| 1     Show NIC List                     |
| 2     Basic Configuration               |
| 3     Bonding Configuration             |
+-----------------------------------------+
Please select one option from the list above (type e/q to escape): 2
```

8. Configure network interfaces:

```
+-----------------------------------------------------------------------------------------------------------------------+
| interface  master  ip              vip  vlan  netmask        macaddress         gateway   bootproto  mtu   status   |
+-----------------------------------------------------------------------------------------------------------------------+
| eth0       N/A     192.168.100.23  N/A  N/A   255.255.255.0  00:1A:64:E5:3C:64  N/A       static     1500  up       |
| eth1       N/A     172.16.1.1      N/A  N/A   255.255.255.0  00:1A:64:E5:3C:66  N/A       static     1500  up       |
+-----------------------------------------------------------------------------------------------------------------------+
Please select one option from the list above (type e/q to escape): 1
Enter the ip address for interface eth0 (Default "192.168.100.23"): 10.1.20.76
Enter the virtual ip address for interface eth0 (Default "N/A"): 10.1.20.176
Enter the netmask for interface eth0 (Default "255.255.255.0"): 255.255.0.0
Enter the gateway for interface eth0 (Default "N/A"): 10.1.1.1
Enter the bootproto for interface eth0 (Default "static"):
Enter the MTU for interface eth0 (Default "1500"):
+-----------------------------------------------------------------------------------------------------------------------+
| interface  master  ip          vip           vlan  netmask      macaddress         gateway   bootproto  mtu   status   |
+-----------------------------------------------------------------------------------------------------------------------+
| eth0       N/A     10.1.20.76  10.1.20.176  N/A   255.255.0.0  00:1A:64:E5:3C:64  10.1.1.1  static     1500  up       |
+-----------------------------------------------------------------------------------------------------------------------+
+-----------------------------------------------------------------------------------------------------------------------------+
| id  interface  master  ip          vip           vlan  netmask        macaddress         gateway   bootproto  mtu   status   |
+-----------------------------------------------------------------------------------------------------------------------------+
| 1   eth0       N/A     10.1.20.76  10.1.20.176   N/A   255.255.0.0    00:1A:64:E5:3C:64  10.1.1.1  static     1500  up       |
| 2   eth1       N/A     172.16.1.1  N/A           N/A   255.255.255.0  00:1A:64:E5:3C:66  N/A       static     1500  up       |
+-----------------------------------------------------------------------------------------------------------------------------+
Please select one option from the list above (type e/q to escape):

[Success] Network Interfaces on the Appliance have been reconfigured
Restarting the admin service: 100%[Success]
+-------------------------------------------------------------------------------+
| Step3. DNS Configuration (Optional).                                          |
| This step will specify the configuration parameters for DNS name servers.     |
| Please Note:                                                                  |
|   1. This step is optional and can be skipped                                 |
|   2. If the BOOTPROTO option for eth0 is set to DHCP, the system will automatically |
|      configure DNS with the information passed from the DHCP server.          |
+-------------------------------------------------------------------------------+
DNS configuration is optional, would you like to skip it?, y)es, n)o, b)ack y/n/b [n]:
```

9. Configure DNS servers:

```
+-------------------------+
| Primary                 |
+-------------------------+
| Secondary               |
+-------------------------+
Do you want to configure the primary dns server? y/n [y]: y
Enter the IP address for primary dns server: 10.1.10.1
Do you want to configure the secondary dns server? y/n [y]: y
Enter the IP address for secondary dns server: 10.2.20.2
+-----------------------------------------------------+
| id              oldServerName    newServerName      |
+-----------------------------------------------------+
| 1                                10.1.10.1          |
| 2                                10.2.20.2          |
+-----------------------------------------------------+
Are you sure you want to make the changes listed above? y/n [y]:
[Success] DNS Settings have been reconfigured
+-------------------------------------------------------------------------------------------------------------+
| Step4. NTP Configuration (Optional).                                                                        |
| Please specify the NTP servers.                                                                             |
| Please Note:                                                                                                |
|   1. This step is optional and can be skipped                                                               |
|   2. This step will allow you to: Add, Delete and Sync the time from a Remote NTP server                    |
|   3. If you are syncing with a Remote NTP server, please ensure NTPD is started and enabled by              |
|      the local firewall. ("man iptables" for assistance)                                                    |
+-------------------------------------------------------------------------------------------------------------+
NTP Configuration is optional, would you like to skip it?, y)es, n)o, b)ack y/n/b [n]:
```

10. Configure Network Time Protocol (NTP):

```
+----------------------------------+
| ID    Select Actions             |
+----------------------------------+
| 1     Show NTP Servers           |
| 2     Add NTP Server             |
| 3     Delete NTP Servers         |
| 4     Sync Time From NTP Server  |
+----------------------------------+
Please select one option from the list above (type e/q to escape): 4
+------------------------------+
| ID    NTP server             |
+------------------------------+
| 1     0.centos.pool.ntp.org  |
| 2     1.centos.pool.ntp.org  |
| 3     2.centos.pool.ntp.org  |
+------------------------------+
Please select one option from the list above (type e/q to escape): 1
SUCCESS: The time has been successfully synced with 0.centos.pool.ntp.org
+----------------------------------+
| ID    Select Actions             |
+----------------------------------+
| 1     Show NTP Servers           |
| 2     Add NTP Server             |
| 3     Delete NTP Servers         |
| 4     Sync Time From NTP Server  |
+----------------------------------+
Please select one option from the list above (type e/q to escape): e
[Success] NTP settings have been reconfigured
+-----------------------------------------------------------------------------+
| Step5. Timezone Configuration (Optional).                                   |
| Please specify the timezone configuration properties for your Master Node.  |
| Please Note:                                                                |
|   1. This step is optional and can be skipped.                              |
+-----------------------------------------------------------------------------+
Timezone configuration is optional, would you like to skip it?, y)es, n)o, b)ack y/n/b [n]:
```

11. Configure Time Zone:

```
+-----------------------------------------------------+
| ID    Select Actions for timezone configuration     |
+-----------------------------------------------------+
| 1     Show Current Timezone & Daylight Saving Time  |
| 2     Configure Timezone                            |
| 3     Configure Daylight Saving Time                |
+-----------------------------------------------------+
Please select one option from the list above (type e/q to escape): 1
+-----------------------------------------------+
| timezone              America/Los_Angeles     |
+-----------------------------------------------+
| DST                   disabled                |
+-----------------------------------------------+
+-----------------------------------------------------+
| ID    Select Actions for timezone configuration     |
+-----------------------------------------------------+
| 1     Show Current Timezone & Daylight Saving Time  |
| 2     Configure Timezone                            |
| 3     Configure Daylight Saving Time                |
+-----------------------------------------------------+
Please select one option from the list above (type e/q to escape): 3
Do you want to enable daylight saving time?, y)es, n)o y/n/b [y]:
SUCCESS: Daylight saving time has been successfully reconfigured
+-----------------------------------------------------+
| ID    Select Actions for timezone configuration     |
+-----------------------------------------------------+
| 1     Show Current Timezone & Daylight Saving Time  |
| 2     Configure Timezone                            |
| 3     Configure Daylight Saving Time                |
+-----------------------------------------------------+
Please select one option from the list above (type e/q to escape): e
[Success] Timezone has been reconfigured
+-------------------------------------------------------------+
| Step6. Modify User Password (Optional).                     |
| This step will allow you to change the admin password.      |
| Please Note:                                                |
|   1. This step is optional and can be skipped               |
+-------------------------------------------------------------+
Admin User Password Configuration is optional, skip it?, y)es, n)o, b)ack y/n/b [n]:
```

12. Change the administrator password:

```
Please type old password of user 'admin':
Please type new password of user 'admin':
Please type again new password of user 'admin':
[Success] The Admin password has been changed
+-------------------------------------------------------------------------+
| Step7. SMTP Server Configuration (Required)                             |
| Schooner Appliance SMTP Server Configuration is required                |
| Please Note:                                                            |
|   1. This step is required, you will proceed to the SMTP Server Setup   |
+-------------------------------------------------------------------------+
SMTP Server Configuration is required, would you like to skip it?, y)es, n)o, b)ack y/n/b [n]:
```

13. Configure SMTP (email) for Phone Home support:

```
+-------------------------------------------------------------------+
| id  key             value                          status     |
+-------------------------------------------------------------------+
| 1   SMTP_SERVER     127.0.0.1                      enabled    |
| 2   SMTP_PORT       25                             enabled    |
| 3   SENDMAIL_BIN    /usr/lib/sendmail -t -i        disabled   |
| 4   MY_NAME         Schooner Information Technology  enabled    |
| 5   MY_EMAIL        root@localhost                 enabled    |
| 6   REPLY_TO                                       disabled   |
| 7   USE_TLS         true                           disabled   |
| 8   SIGNATURE_FILE  &/email.sig                    disabled   |
| 9   ADDRESS_BOOK    &/email.address.template       enabled    |
| 10  SAVE_SENT_MAIL  ~                              disabled   |
| 11  TEMP_DIR        /tmp                           disabled   |
| 12  GPG_BIN         /usr/bin/gpg                   enabled    |
| 13  GPG_PASS                                       disabled   |
| 14  SMTP_AUTH       LOGIN                          disabled   |
| 15  SMTP_AUTH_USER                                 disabled   |
| 16  SMTP_AUTH_PASS                                 disabled   |
+-------------------------------------------------------------------+
Please select one option from the list above (type e/q to escape): 1
Do you want to enable the parameter 'SMTP_SERVER'?, y)es, n)o y/n/b [y]:
Please type value for SMTP_SERVER: 10.1.0.1
+-------------------------------------------------------------------+
| id  key             value                          status     |
+-------------------------------------------------------------------+
| 1   SMTP_SERVER     10.1.0.1                       enabled    |
| 2   SMTP_PORT       25                             enabled    |
| 3   SENDMAIL_BIN    /usr/lib/sendmail -t -i        disabled   |
| 4   MY_NAME         Schooner Information Technology  enabled    |
| 5   MY_EMAIL        root@localhost                 enabled    |
| 6   REPLY_TO                                       disabled   |
| 7   USE_TLS         true                           disabled   |
| 8   SIGNATURE_FILE  &/email.sig                    disabled   |
| 9   ADDRESS_BOOK    &/email.address.template       enabled    |
| 10  SAVE_SENT_MAIL  ~                              disabled   |
| 11  TEMP_DIR        /tmp                           disabled   |
| 12  GPG_BIN         /usr/bin/gpg                   enabled    |
| 13  GPG_PASS                                       disabled   |
| 14  SMTP_AUTH       LOGIN                          disabled   |
| 15  SMTP_AUTH_USER                                 disabled   |
| 16  SMTP_AUTH_PASS                                 disabled   |
+-------------------------------------------------------------------+
Please select one option from the list above (type e/q to escape): e
Are you sure you want to make the changes?, y)es, n)o y/n/b [y]:
SUCCESS: Set SMTP Server Configuration
+-------------------------------------------------------------------+
| id  key             value                          status     |
+-------------------------------------------------------------------+
| 1   SMTP_SERVER     10.1.0.1                       enabled    |
| 2   SMTP_PORT       25                             enabled    |
| 3   SENDMAIL_BIN    /usr/lib/sendmail -t -i        disabled   |
| 4   MY_NAME         Schooner Information Technology  enabled    |
| 5   MY_EMAIL        root@localhost                 enabled    |
| 6   REPLY_TO                                       disabled   |
| 7   USE_TLS         true                           disabled   |
| 8   SIGNATURE_FILE  &/email.sig                    disabled   |
| 9   ADDRESS_BOOK    &/email.address.template       enabled    |
| 10  SAVE_SENT_MAIL  ~                              disabled   |
| 11  TEMP_DIR        /tmp                           disabled   |
| 12  GPG_BIN         /usr/bin/gpg                   enabled    |
| 13  GPG_PASS                                       disabled   |
| 14  SMTP_AUTH       LOGIN                          disabled   |
| 15  SMTP_AUTH_USER                                 disabled   |
| 16  SMTP_AUTH_PASS                                 disabled   |
+-------------------------------------------------------------------+
[Success] SMTP Server Configuration for the Schooner Appliance has been reconfigured
+-------------------------------------------------+
| Step8. SNMP Configuration (Optional)            |
| SNMP Configuration is optional                  |
| Please Note:                                    |
|   1. This step is optional and can be skipped   |
+-------------------------------------------------+
SNMP Configuration is optional, would you like to skip it?, y)es, n)o, b)ack y/n/b [n]:
```

14. Configure SNMP:

```
+--------------------------+
| ID    Select Actions     |
+--------------------------+
| 1     Show Communities   |
| 2     Add Community      |
| 3     Delete Community   |
| 4     Modify Communities |
+--------------------------+
Please select one option from the list above (type e/q to escape): 1
+---------------------------------------+
| id  type         community  source   |
+---------------------------------------+
| 1   rocommunity  public              |
+---------------------------------------+
+--------------------------+
| ID    Select Actions     |
+--------------------------+
| 1     Show Communities   |
| 2     Add Community      |
| 3     Delete Community   |
| 4     Modify Communities |
+--------------------------+
Please select one option from the list above (type e/q to escape): 4
+---------------------------------------+
| id  type         community  source   |
+---------------------------------------+
| 1   rocommunity  public              |
+---------------------------------------+
Please select one option from the list above (type e/q to escape): 1
Enter community type (Default "rocommunity"):
Enter community string (Default "public"): snmp_string
Enter IP addresses:
SUCCESS: modify snmp community successfully
+--------------------------+
| ID    Select Actions     |
+--------------------------+
| 1     Show Communities   |
| 2     Add Community      |
| 3     Delete Community   |
| 4     Modify Communities |
+--------------------------+
Please select one option from the list above (type e/q to escape): e
[Success] SNMP Configuration has been reconfigured
+-------------------------------------------------------------------------+
| Congratulations, the First Time Wizard CLI has completed successfully.  |
+-------------------------------------------------------------------------+
+-------------------------------------------------------------------------------------------------------------------------------------------+
| Please execute command 'cd /var/www/html/admin/cli/schooner-mysql/bin && ./init_database_setup.php' to configure schooner mysql  |
+-------------------------------------------------------------------------------------------------------------------------------------------+
[admin@localhost bin]$
```

Refer to the *QuickStart Guide* and the *Schooner Appliance for MySQL Enterprise™ Application & Administration Guide* to configure and launch the Schooner MySQL database.

Chapter 5: Configure the IMM

The integrated management module (IMM) consolidates the service processor functionality, Super I/O, video controller, and remote presence capabilities in a single chip on the Schooner Appliance server system board. This is a vital subsystem which provides system monitoring and alert capabilities. It is highly recommended that the customer enable the IMM which provides the following:

- Email alerts to customer for critical system level hardware events
- SNMPv1 capability
- Real-time monitoring of system level hardware

Overview of Access to the IMM

The IMM supports both static and Dynamic Host Configuration Protocol (DHCP) IP addressing. The default static IP address assigned to the IMM is 192.168.70.125. The IMM is initially configured to attempt to obtain an address from a DHCP server; and when it fails to do so, it uses the static IP address. The IMM provides the choice of using a dedicated systems-management network connection or one that is shared with the server. The default connection for the Schooner Appliance is to use the dedicated systems-management network connector. This is a 100-Mb Ethernet interface.

After you have started the Schooner Appliance, you can use the Setup utility to select an IMM network connection. The server with the IMM hardware is shown below as being configured to use the IMM static IP address.

Set UP the IMM Network Connection

To set up the IMM network connection through the Setup utility, complete the following steps:

1. Turn on the server.

   Note: Approximately 2 minutes after the server is connected to AC power, the power-control button becomes active which indicated the IMM has restarted. You will now see the IBM System x Server Firmware welcome screen displayed.

2. When the prompt <F1> Setup is displayed, press F1.
3. From the Setup utility main menu, select System Settings.
4. On the next screen, select Integrated Management Module.
5. On the next screen, select Network Configuration.
6. Highlight DHCP Control. There are three IMM network connection choices in the DHCP Control field:
   - Static IP
   - DHCP Enabled
   - DHCP with Failover (default)

7. Select one the Static IP if not selected already from the network connection choices.
8. Specify the IP address, the subnet mask, and the default gateway.
9. You can also use the Setup utility to select a dedicated or shared IMM network connection. On the Network Configuration screen, select Dedicated or Shared in the Network Interface Port field.

   Note: To find the locations of the Ethernet connectors on your server that are used by the IMM, see the (section earlier).
10. Select Save Network Settings.
11. Exit from the Setup utility.

Notes:

- You must wait for approximately 1 minute for changes to take effect before the server firmware is functional again.
- You can also configure the IMM network connection through the IMM Web interface. For more information see below.

Connect to the IMM

You can connect a laptop directly to either eth0 (shared mode) or (IMM Management Port) or access from another server in your network with the static IP you have entered for the IMM above.

1. From the remote computer, enable web access by entering the following link http://"static ip of the IMM". For example, if you are using the default static IP http://192.168.254.125 that you have set up early, you will see the IMM login access page (if the log-in is successful).
2. Enter the following (the text is case-sensitive and the numerical 0 is used in PASSW0RD):

   - User Name [USERID]
   - Password [PASSW0RD]

   Once entry is granted, you will see the following:

   Welcome USERID.

   Opening web session to xxx.xxx.xxx.xxx (*which is the IP you have configured.*)

Note: Your session will expire if no activity occurs for the specified timeout period. When that occurs, you will be prompted to sign in again using your login ID and password. Once have you have logged in, make sure to select the desired timeout period, which by default is no time limit on the session (see below).

Inactive session timeout value: [no timeout]

1. Click Continue. The Integrated Management Module screen appears.

   You should then use the menu options on the left-hand side of the screen to validate some important system information.

   First of all, you need to check the Vital Product Data to make sure that the

firmware revisions are up to date. Check with the IBM Support team to make sure that you have the latest firmware releases installed.

2. Select Monitors>Vital Product Data.

Firmware VPD

Firmware Type	Version String	Release Date
IMM	YUOO24I-2009/06/22	06/22/2009
UEFI	D6E126A-2009/06/26	06/26/2009
DSA	D6YT37A-2009/06/19	06/19/2009

Check against the latest revisions to see if there is a pending update. See the Schooner Software Update process for more information.

3. Next we will check the IMM Identification Info and its system time by clicking IMM Control>System Settings.

4. Enter the following information about the Schooner Appliance and click **Save**:

IMM Information

```
Name       [   ]
Contact    [   ]
Location   [   ]
```

This information is used in the email alerts to aid in identification of the Schooner Appliance.

5. Set IMM Date and Time according to the Customer's time zone (or configure the IMM for a local NTP server, if available) by clicking the Set IMM Date and Time link. See below.

IMM Date and Time

```
Date (mm/dd/yyyy)     / /
Time (hh:mm:ss) : :
GMT offset
```

Notes:

- Set only the GMT offset for the desired time zone.
- Select “Automatically adjust for daylight saving changes” only if there is a DST for that time zone.

6. Optionally, if you have an internal NTP server and would like to use it, you may want to configure for Network Time Protocol (NTP) here. Otherwise skip this entry.

Network Time Protocol (NTP)

```
NTP auto-synchronization service [Disable/Enable]
NTP server host name or IP address [        ]
NTP update frequency (in minutes) [80]
```

7. Enter the desired information and Save.

Set Up the IMM Recipients

It is critical to setup an alert recipient. You can use the IBM Support as a base recipient and add another specific recipient from your local administration hierarchy.

To create an email alert recipient:

1. Under IMM Control, click Alerts.
2. Click Add Recipient (or to edit a recipient, click the corresponding link).

```
Remote Alert Recipient
Status                  [Disable/Enable]
Name              [IBM Support]
E-mail address (userid@hostname) [   ]
```

3. Check the Include event log with e-mail alerts check box.
4. Select the following alerts that you want to be notified of.

```
Monitored Alerts
Select the alerts that will be sent to remote alert
recipients.
Critical Alerts
Warning Alerts
System Alerts
```

5. Check the desired boxes and Save.

   Note: It is recommended that at least Critical Alerts be included.

Configure the Baud Rate for the IMM Serial Port

You need to configure the Baud rate for the IMM serial port if you have not yet done so. This is required for remote console access over the IMM's CLI interface.

To configure the Baud rate for the IMM serial port:

1. Under IMM Control, click Serial Port.
2. Enter the following information and click Save.

```
Baud rate [38400]
Serial Port 2 (COM2)
```

Configure the User-Specific IMM Network Interface

To configure your user-specific IMM network interface:

1. Under IMM Control, click Network Interfaces.
2. Make the following selection and/or entries:

Ethernet

Interface [Enabled]

DHCP [Disabled - Use static IP configuration]

*** Currently the static IP configuration is active for this interface.

*** This static configuration is shown below.

Hostname [xxxIMM]

Static IP Configuration (enter the following):

IP address [xxx.xxx.xxx.xxx]

Subnet mask [xxx.xxx.xxx.xxx]

Gateway address [xxx.xxx.xxx.xxx]

3. Enter desired information and Save.

Configure the IMM Network Protocols for Schooner Appliance

The IMM defines certain network protocols. This section shows the default network settings for the Schooner Appliance.

To set up user-specific network configurations:

1. Under IMM Control, click Network Protocols. The following information appears on the screen:

Simple Network Management Protocol (SNMP)

SNMPv1 agent [Enabled]

SNMPv3 agent [Disabled]

SNMP traps [Enabled]

SNMPv1 Communities

Community Name Access Type Host Name or IP Address

[public] 1. [trap] [xxx.xxx.xxx.xxx]

Subnet mask [xxx.xxx.xxx.xxx]

Gateway address [xxx.xxx.xxx.xxx]

2. Make sure to enable up SNMPv1, identify and enter the user's SNMP host. You can add up to 3.
3. Set up the desired user-specific configurations and leave the selections at the default, except for those mentioned above.
4. Set DNS parameters, if available and appropriate, as shown below.

Domain Name System (DNS)

DNS [Disable/Enable]

DNS server IP address 1 [xxx.xxx.xxx.xxx]

DNS server IP address 2 [xxx.xxx.xxx.xxx]

DNS server IP address 3 [xxx.xxx.xxx.xxx]

5. Set up the email host, which is required in order to enable IMM alerts. See below.

Simple Mail Transfer Protocol (SMTP)

SMTP server host name or IP address [xxx.xxx.xxx.xxx]

Configure the IMM Security Settings

Configuring security settings for IMM involves setting up SSH access, generating the security key (if it has not already been done), and enabling SSH. Typically this has been enabled already.

To enable security settings for the IMM:

1. Under IMM Control, click Security.
2. On the IMM>Security screen, make sure the following settings are set as below:

Secure Shell (SSH) Server

SSH Server [Enabled]

SSH Server Key Management

SSH server key status: [SSH Server key is installed]

Reboot the IMM

After changing network settings you will need to reboot the IMM for the changes to take effect. Make sure you save your configuration before restarting the system.

To reboot the IMM:

1. Under IMM Control, click Restart IMM.
2. Click Restart.

Back Up IMM Configuration

After rebooting the IMM, enter the IMM configuration file again and back up its configuration.

To back up the IMM configuration:

1. Under IMM Control, click Configuration File.
2. Click Backup.

   Note: You can always review your current configuration by clicking the View the current configuration summary link before backing it up.