

User's Guide for Server Configuration Wizard (SCW) Utility

For Intel® Server Boards and Platforms
based on the SE72xx, SE7320, SE75xx, and SE8500 Chipsets

Revision 1.1
for Server Configuration Wizard through v 2.1.6

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1 Overview of Server Configuration Wizard

The Server Configuration Wizard (SCW) is a combination of multiple utilities and data files that allow quick initial configuration of an Intel® Server.

The SCW utility is available on the Intel® Server Deployment Toolkit CD, which can be used to boot the server. SCW is a DOS-based application, run from the CD's ROM-DOS, that gathers system information plus installation and configuration preferences, stores them to non-volatile memory, and then performs the Server configuration. The Wizard will appear as a Windows-style GUI to help the user choose which options to configure from this tool.

SCW can also run in 'silent' mode using a previously saved server configuration file from removable media (formatted fat16).

SCW can

- Load FRUs and SDRs (Field Replaceable Units and Sensor Data Records)
- Create startup diskette and installation diskettes for drivers
- Allow utilities to be run separately by expert users
- Set the:
 - System Asset Tag
 - LAN, Serial, and Advanced LAN Channels.
 - OOB (Out of band) management settings – for Server Management without using the OS
 - Intel® Management Module (IMM) Advanced Features
 - User configurations for Advanced Features
 - BIOS System date and time

Beyond date/time, SCW neither installs nor updates the BMC or BIOS.
- Help and error messages are provided throughout the process.

Technical Details

SCW supports IPMI 1.5 and 2.0 compatible platforms.

The autoexec and config.sys files on the Intel Deployment Toolkit CD launch ROM-DOS, setup a RAMdrive, and run the SCW batch file. The SCW batch file checks for the RAMdrive and copies the required utilities and data files to that drive. The Wizard presents a GUI menu set for the user to choose which setup options to run. Error messages will display (if needed) from the GUI and the DOS utilities for troubleshooting.

User's Guide Layout

On the next page are quick links to major topics and suggested paths through SCW based on installation. The rest of the document body is a screen by screen explanation of SCW. The Appendices contain the Glossary and instructions for formatting and enabling removable media.

2 Quick Links (for Experienced Users of SCW)

- Run DOS [Utilities](#) outside of SCW
- [Make Device Driver Diskettes](#) by Operating System or by Device
- [From Disk](#) Install for unattended Configuration, Cloning, or to restore previous settings
- [ISM Question](#)
- Load [FRU/SDRs](#)
- Add [System Asset Tag](#)
- Set up [Channels](#): LAN 1, Advanced LAN 3, or Serial Modem 4 (Addresses, Alerts, etc.)
- Configure [User Accounts](#)
- [Advanced Settings](#) for Intel® Management Module – Advanced Edition
- [Save Configuration Option Choices to Disk](#)

3 Installation Paths

- A. Installing Intel® Management Module (IMM) – Advanced Edition
- B. Installing Intel Management Module – Professional Edition
- C, D, and E. Installing Intel Server Manager – with Agents (Full, Minimal, None)
- F. Not installing Intel Server Manager

Table 1: Hardware Configurations and Suggested Installation

	A: IMM Adv.Ed.	B IMM-Prof Ed	C ISM Full Ag	D. SM-Minim	E. ISM No Agt	mBMC ISM	No BMC	BMC no ISM8x
Answer ISM ?	No	Yes	No	No	No	No	No	No
FRU/SDRs	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Date/Time	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Asset Tag	-----Optional-----			-----Optional-----			--Optional--	
LAN Ch 1	Opt	Yes	Yes	Yes	Yes	Yes	TCO	TCO
IMM Adv. C3	Yes	No	No	No	No	No	No	No
Modem C4	Optional		No	No	No	No	No	Yes
Multi Users	Yes	Yes	Yes	No	No	No	No	No
Advanced	Yes	No	No	No	No	No	No	No

Save Configuration to Disk Option

- Run applicable scenario as listed above and choose the [Save to Disk](#) option before Finish.

Unattended Configuration –

- Need a previous Saved Configuration Disk, then use [From Disk](#) Install: (Clone/ Restore previous Settings)

4 General Wizard Format and Syntax

Configuration options will be presented in a Wizard. Current settings will be displayed and can be accepted or changed. Square checkboxes allow multiple choices in a section. Round radio buttons allow one choice per section (exclusive). The basic layout of each screen is:

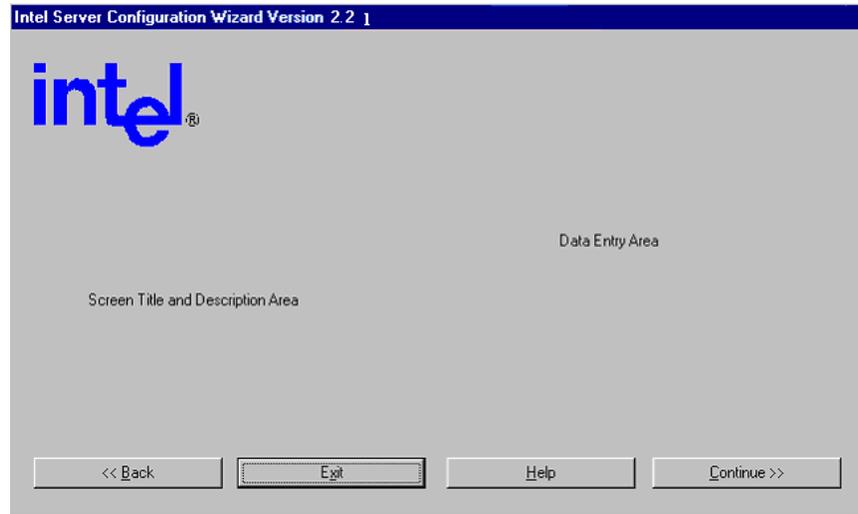


Figure 1. Screen Layout Syntax

Feature	Description
Title Bar	Gives Version of SCW
Screen Title and Description Area (left half of screen)	Explains purpose of the particular screen and provides general instructions
Data Entry Area (right half of screen)	Shows the configuration data required for that section's setting.
Common Buttons	
Back	Returns to previous screen, choices preserved
Exit	Quits the program without saving
Help	Provides additional information
Continue	Accepts the settings and moves to the next screen

5 Getting Started

Booting the Server

When booting the server from an Intel Server Deployment Toolkit CD, the startup files (autoexec.bat and config.sys) will create a RAMdrive. This RAMdrive will be used as a temporary storage area for the different components of the utility. Information on the RAMdrive is lost on power off or reboot.

Server Probing

SCW will probe the server and store the component information to data files.

Probed areas include the:

- Baseboard
- Chassis
- FRU (Field Replaceable Unit) devices
- SDRs (Sensor Data Records)
- BIOS and Firmware versions
- Channels
- Configured Users
- Intel Management Modules

Start Screen

When the Wizard starts, the following Welcome screen is displayed.



Figure 2. Start Screen

Initial Options

Choose **Server Configuration Wizard** to configure Channels, Users, and Advanced Settings.
Choose **Create Diskettes** to place device drivers on removable media.
Choose **Server Configuration Utilities** to view which DOS Utilities can be run separately for this platform. (See [Section 9](#).)



Figure 3. First Choices

6 Configuration Screens

Intel® Server Management (ISM) Question

Both SCW and ISM have options to configure certain sections of the server's firmware.

By default, servers with the Intel® Management Module should:

- Load FRUs and SDRs (can be done with SCW or FRU/SDR utility)
- Configure Channels (can be done with SCW or ISM)
- Configure Users and Advanced Features (Advanced module). (Use SCW only)



Figure 4. Configuration via ISM or SCW?

The Wizard will ask if ISM will be installed, but this question is actually asking which utility should be used to setup the Channels and Users.

Yes: Uses ISM to configure the Channels and Users. If Yes is selected, only a limited SCW Configuration Options screen will appear. (See explanations of components starting at Section 7.) The options to configure Users and Channels will NOT appear. Choose yes for:

- Servers with an Intel Management Module – Professional Edition installed.

No: Allows SCW to setup all the components. Shows Users and Channels. Choose No for:

- Servers where ISM will not be installed
- Servers where ISM will be installed using the “No Agents” option.
- Servers with an Intel Management Module – Advanced Edition installed.

NOTE: An ISM install after SCW configuration will overwrite some of the SCW settings.

Unattended Configuration and Cloning/Restore Option

The configuration choices may be saved to a removable media device. The saved files may be used to later install the settings without user intervention or to restore to a particular series of settings on the same or an identical server. To use a saved file, choose Load from Diskette (may be any viewable removable media – see Appendix B.)



Figure 5. Silent Install

7 Selecting Options to Configure – Main Page

The initial options screen shows subgroups of components that SCW is capable of configuring. To have SCW perform the configuration, the component must be checked on this menu. Items without check marks will NOT be configured by SCW and will not appear in subsequent screens. Whether or not the component is checked, it is still available on the server. If no items are checked, the Continue Button will be disabled.

Defaults vary by platform but are shown by the following groups.

- **FRUSDR Configuration Options** – choose which record sets to update
- **System Asset Tag**
- **Remote Management (OOB) Options** - access and alerts over LAN or Serial/Modem Channels
- **Advanced Features Options** – to set up IMM-Advanced Edition features (Telnet, SNMP, Web Server, E-Mail, and ARSC (KVM)).

Options may not always appear in the order that is listed here.

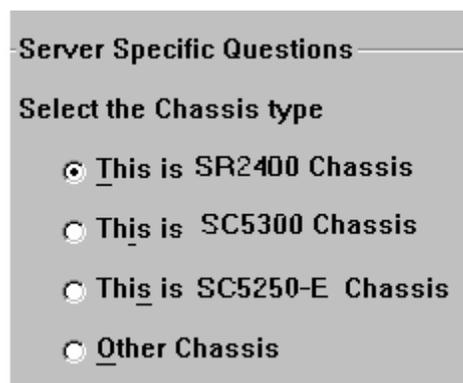
Configure FRU/SDRs

Intel® Servers come with FRU/SDRs pre-loaded but newer files may be available from the Intel support website. Check under the specific platform at

<http://support.intel.com/support/motherboards/server/>

SCW only supports loading ASCII FRU data from a file named SCW_<platform>.cfg where the <platform> designation is 3 characters long and designates the platform name.

Additionally, SCW will ask a series of questions to determine the exact configuration of the platform and which options are desired. Choose the answer that most closely matches your hardware configuration so the proper records will be loaded. The number of screens varies by platform.



Server Specific Questions

Select the Chassis type

This is SR2400 Chassis

This is SC5300 Chassis

This is SC5250-E Chassis

Other Chassis

Figure 6. Typical SDR Question

BIOS Date and Time:

This screen also displays the BIOS, HSC, PIA, and Firmware versions.

Set the Date:

January 2005

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Set the Time: 07:33:48 PM

Current BIOS Version: SE7520AF20.86B.RC02.06
Current BMC Firmware Version: 00.35
Current HSC Firmware Version: N/A
Current PIA Version: 00.40

Figure 7. BIOS Date and Time

Setting a System Asset Tag

System Asset Tag:

Figure 8. System Asset Tag

- Acts as serial number or ID for the server.
- The Continue button will be disabled until a System Asset Tag has been entered. If you do not wish to set a Tag Number, do not choose this option in the Main Select Options screen.
- Format is from 2 to the maximum number allowed by the specific platform's FRU Area of text or numeric characters.

Channel Configuration (LANs and Serial/Modem)

The number of channels available depends on the platform. Not all channels must be configured.



Figure 9. Channels to Configure

Feature	Description
Channel 1	The onboard NIC1. On servers with dual ports onboard, the second NIC is not configured by SCW. This NIC can be used either OOB or through the OS. On SE7520VP2, NIC2 is used.
Channel 4	For a modem attached to the Serial port.
Channel 3	Available only for the Advanced Module GCM NIC providing Telnet, Web, SMTP, SNMP and ARSC support. Available only through the GCM (Advanced Module) NIC.

LAN Channel Screens

LAN Channels 1 and 3 use similar configuration screens, which will be illustrated here only once. Items that apply only for the GCM NIC (default is Channel 3) will not appear or will be grayed out when the standard NIC is chosen. Advanced Features configuration is separate from GCM NIC Channel configuration.

LAN Configuration, Screen 1 – Configure IP

Steps to complete Screen 1:

1. Choose **Static IP or DHCP** setup.
 - The GCM NIC should have a static IP.
 - If DHCP is chosen, all other entries will be filled in automatically.
 - If Static is chosen, the option to Continue will not be available until all required entries are completed. .
2. (Only required if Static is chosen.) Enter the server's IP address and subnet mask and gateway.
 - If less than three digits are required for a subsection of the address, either use the mouse or the tab key to move to the next subsection.
3. (Only required if DHCP does not preset the gateway.) Either enter the MAC address of the Gateway or click Resolve Gateway MAC Address (described in the next section).
 - The Backup Gateway IP address is optional

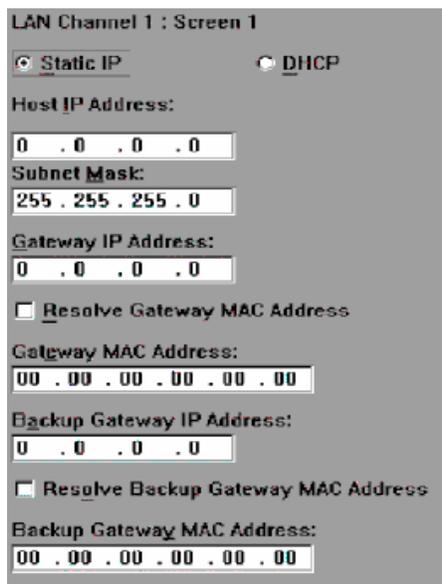


Figure 10. LAN Screen 1 – IP Configuration

Resolve Gateway MAC Address

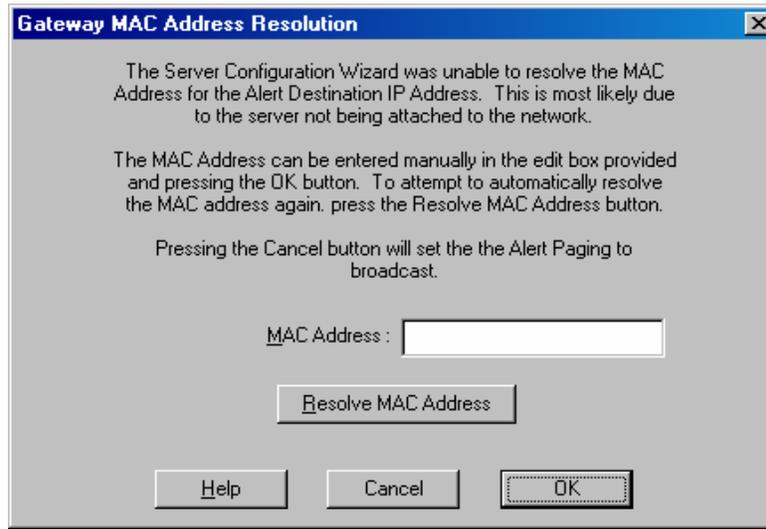


Figure 11. Address Resolution

If Alerts must cross subnets, the software will attempt to verify the gateway address to reach the Alert Destination. The Alert Destination is the console receiving the alert message from the configured server. It will use an entered MAC address or attempt to find the IP address for the Alert Destination system if the checkbox is checked.

Automatic resolution will fail if:

- Network cable is not connected at both ends
- IP address configuration is invalid
- Incorrect network configuration.

After resolving a failure, press the Resolve MAC Address button again or enter the MAC address of the destination system (in 6 dotted octets).

If skipped, Alerts will be broadcast on the local subnet.

LAN Channel, Screen 2 – Configure Out of Band (OOB) Access

LAN Channel 1 : Screen 2

Enable LAN Access

LAN Privilege Level Limit:
Admin

Enable Serial Over LAN

SOL Privilege Level Limit:
User

SOL Number of Retries:
6

SOL Retry Interval:
20

SOL Baud Rate:
19.2kbps

Figure 12. LAN Screen 2 – OOB and SOL Setup

This screens sets up NIC1 or the GCM NIC for Out of Band access. Also sets up SOL (Serial over LAN) on NIC1.

- **Enable LAN Access:** Enable access to the BMC when OOB..
- **Enable Serial Over LAN (SOL):** Allows access over the network to the Serial channel.

Access Levels

- **LAN Privilege Level Limit Dropdown List** or LAN Access Mode
- **SOL Privilege Level Limit Dropdown List** or SOL Access Mode

The Privilege Level Limit sets the lowest sign-in level that will be allowed access. Choosing **Administrator** provides the most security. Choices are:

- **User:** Only able to use read commands Sometimes listed as the option **Always**.
 - **Operator:** All BMC commands are allowed, except for any configuration change of the OOB interface that would block access, such as disabling channels.
 - **Administrator:** All BMC commands are allowed, including disabling a channel which would block all further access and cannot be recovered remotely. (Sometimes listed as the option **Restricted**)
 - **Not enabled**
- **SOL Number of Retries:** 1-7
 - **SOL Retry Interval:** 1 to 255
 - **SOL Baud Rate:** 9600bps, 19.2kbps (recommended), 38.4kbps, 57.6kbps or 115.2kbps

LAN Channel, Screen 3 – Alerts

Alerts can be sent over the network from the NIC or via e-mail (system dependent). The information needed is configured on Screen 3.

LAN Channel3 : Screen 3

Enable LAN Alerting

Alert Destination Console 1 IP Address:
0 . 0 . 0 . 0

Resolve Alert IP Address 1 MAC Address

Alert Destination MAC Address1:
00 . 00 . 00 . 00 . 00 . 00

Alert Destination Console 2 IP Address:
0 . 0 . 0 . 0

Resolve Alert IP Address 2 MAC Address

Alert Destination MAC Address2:
00 . 00 . 00 . 00 . 00 . 00

SNMP Community String:
public

LAN Alert Filters...

No Email Alerts
 Send Email Alerts via LAN Alert IP Address 1
 Send Email Alerts via LAN Alert IP Address 2

Figure 13. LAN Screen 3 – Alerts

- **Enable LAN Alerting** : Must be checked for alerts to be sent.
- **Alert Destination Console 1 IP Address**
- **Alert Destination Console 2 IP Address**
Enter the IP address of the preferred Console(s) to receive the alerts.
- Check the checkboxes to **Resolve Destination MAC Addresses** (earlier versions had the text **Resolve Gateway**) or Fill in the **Destination MAC number**.
- **SNMP Community String**: Required field in the SNMP traps header. If not set, will default to “public”. Can be 5-18 characters in length.
- **LAN Alert Filters button** will bring up the next screen (see next section).

The bottom 3 check boxes provide the option to **replace LAN alerts with email alerts on** systems with the Intel® Management Module – Advanced Edition. To do so, the IP address used by the SMTP service must be entered for either the first or second destination address.

- **No Email** (default when IMM - Professional Edition is installed)
- **Send Email Alerts via LAN Alert IP Address 1**
- **Send Email Alerts via LAN Alert IP Address 2**

LAN Alert Filters

If the user presses the LAN Alert Filters button on Screen 3 of LAN configuration, the available filters for LAN alerts (or email alerts with the Advanced module) are listed.

Each item is an event that, if checked, will trigger an alert if that feature crosses the upper or lower threshold. .

Choose on an individual basis, or choose none or all.

The **Select All** and **Clear All** buttons are provided for convenience.

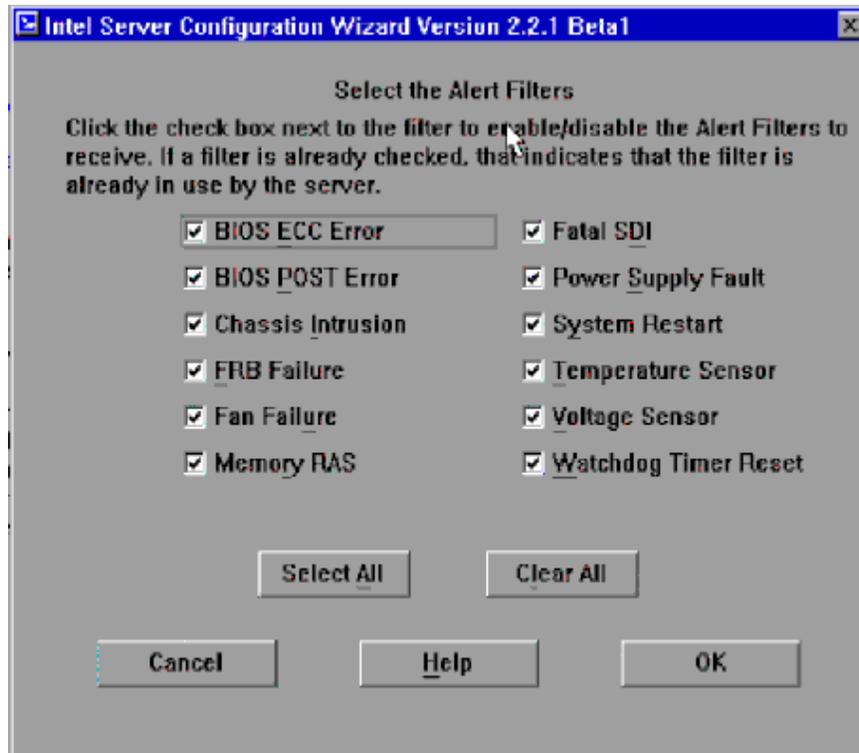


Figure 14. LAN Alert Filters

Configuring the Serial/Modem Channel

This option allows the setup of a modem on the Serial Channel (default channel 4). Information on the modem's strings is required and 3 screens are used to cover the options.

- The first screen sets data specific to configuring the modem.
- The second screen sets data specific to the access modes.
- The last screen sets data specific to paging, if paging is desired for alerting from this server.

Serial/Modem Screen 1 – Modem Setup

Serial Channel : Screen 1

ESC Sequence:
+++

Hangup String:
ATH

Modem Init String:
ATE1Q0V1X4&D2&C1S0=0

Modem Dial Command:
ATD

Modem Ring Time:
3

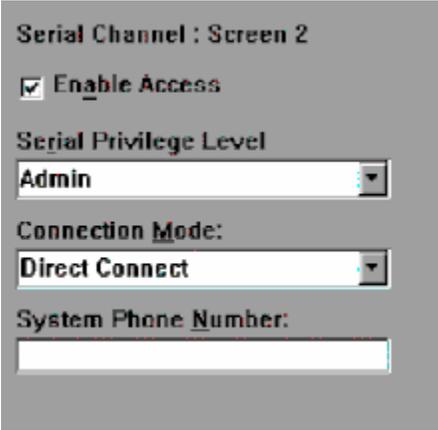
Figure 15. Serial 1 – Modem Configuration

Accept defaults or provide the required modem strings:

- **ESC Sequence:** Max 5 characters, first string sent to clarify modem communication.
- **Hang up String:** Terminates session. Max 7 characters with an automatic 'Enter' added by the BMC.
- **Modem Init String:** Initializes channel connection.
- **Modem Dial Command:** ATD for tone dial.
- **Modem Ring Time:** Number of rings

'Continue' will not be available until all settings are entered.

Serial/Modem Screen 2 – Remote Server Management



Serial Channel : Screen 2

Enable Access

Serial Privilege Level

Admin

Connection Mode:

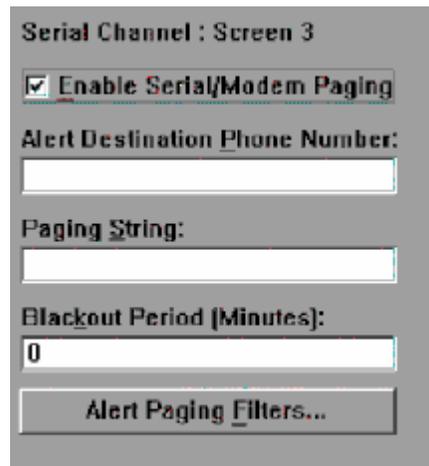
Direct Connect

System Phone Number:

Figure 16. Serial 2 – Privilege and Mode

- **Enable Access:** Allows OOB server management access via Modem on the serial channel
- **Privilege Level** (see [Access Level under Figure 13](#)):
 - Note: Some platforms used **Access Mode and Restricted Mode** instead of PrivLevel. Access Mode options are: Preboot only| Always| Disabled.
 - Where Preboot sets to on at power down or hard reset.
 - Restricted Mode options are: Enabled | Disabled.
 - Where enabled means one cannot disable the system
- **Connection Mode:** Provides 2 choices
 - Direct – connected via a null modem cable to another system.
 - Modem Mode – connected to an external modem to connect to another system.
- **System Phone Number** (optional): Enter the phone number of this system (not phone to dial).

Serial/Modem Screen 3 – Alerting



Serial Channel : Screen 3

Enable Serial/Modem Paging

Alert Destination Phone Number:

Paging String:

Blackout Period (Minutes):

Alert Paging Filters...

Figure 17. Serial 3 – Alerts

- **Enable Paging:** If enabled, sends alerts.
- **Alert Destination Phone Number:** Phone number of the device to Receive the alerts. Device can be a pager, cell phone, modem of managing system.
- **Paging String:** Characters sent after connect. This is concatenated with the Alert Destination Phone Number so do not add twice.
- **Blackout Period:** Time, in minutes, between successive alerts. Numeric value between 0 and 255. 0 will disable the black period.
- **Alert Paging Filters:** Launches the next screen to configure the alerts.

Serial Alert Filters

Similar to LAN Alert Filters screen, this configures the alerts to be used on the Serial Channel. Each item lists a filter that if checked, will send an alert if either threshold is crossed. Choose from none to all on an individual basis.

The **Select All** and **Clear All** buttons are provided for convenience.

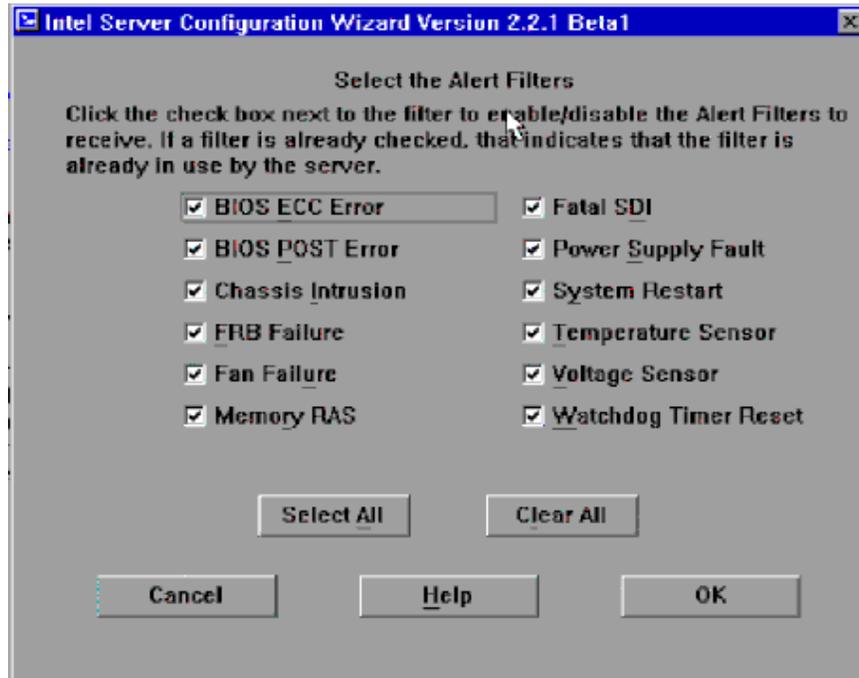


Figure 18. Serial Alert Filters

Configuring Channel 3: GCM NIC (Advanced LAN)
– see instructions for LAN Channel 1.

Configuring Users – Selection Screen

Up to 4 users can be configured for OOB Server Management access, depending on the platform. Click to place a checkmark in the box on each of the Users you wish to setup.

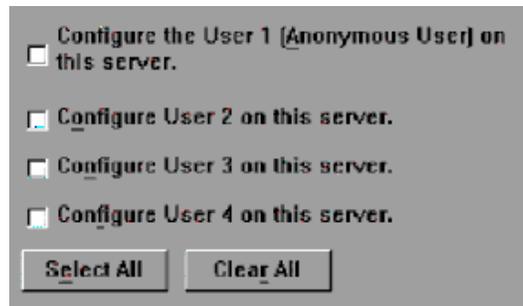
A screenshot of a user selection screen. It features four unchecked checkboxes, each followed by a text label: 'Configure the User 1 [Anonymous User] on this server.', 'Configure User 2 on this server.', 'Configure User 3 on this server.', and 'Configure User 4 on this server.'. Below these options are two buttons: 'Select All' and 'Clear All'.

Figure 19. User Selection

- Choices are which of the 4 Users to configure.
- Choosing multiple Users or Select All will run through the User screens for each User #.
- Clear All will clear previous selection.
- Set up is per user per channel for OOB access.

Settings Available per User

Screens are similar for all users except if multiple users are chosen on the Advanced Module, User 1 (if enabled) must be the anonymous user.

The screenshot shows a configuration window for 'User 1'. It includes a checked checkbox for 'Enable User', a text field for 'User Name' containing 'anonymous', and a 'Set Password for this User' button. Below are three dropdown menus for 'LAN Channel 1 Privilege Level Limit', 'Serial Channel Privilege Level Limit', and 'Advanced LAN Channel Privilege Level Limit', all set to 'User'. At the bottom, there are three checked checkboxes: 'Enable HTTP for this User', 'Enable HTTPS for this User', and 'Enable Telnet for this User'.

Figure 20. User Configuration

- **Enable User:** If this box is checked, this user will be able to log into the BMC.
- **User Name**
User 1 defaults to anonymous. All other users are customizable.
- **Set Password for this User :** Allows entry of password for each user.
- **LAN Channel 1 Privilege Level Limit** - see [Access](#) explanation under Figure 12.
- **Serial Channel 4 Privilege Level Limit** - see [Access](#) explanation under Figure 12

If IMM-Advanced Edition is installed, these additional options will be available:

- **Adv. LAN Channel 3 Privilege Level Limit** - see [Access](#) explanation under Figure 12
- **Enable HTTP for this User:** Must be checked to allow access to the Web Server on the Advanced Module.
- **Enable HTTPS for this User:** Must be checked to allow access to the Web Server over secure connection. HTTPS is only available in some releases
- **Enable Telnet for this User:** Must be checked to allow Telnet access for this user.

Configuring the Advanced Features

The IMM – Advanced Edition provides multiple additional options for OOB management, provided regardless of the state of the OS using the GCM NIC.

- **SNMP** – ability to manage via SNMP gets, sets, and traps.
- **KVM (ARSC)** – Advanced Remote Server Console providing full access to the managed server by controlling the redirected Keyboard, Mouse, and Video. Video is compressed and encrypted.
- **Telnet** – ability to telnet into the BMC and use commands from the console or a script. Commands use the CLI syntax (not IPMI syntax). IPMI sessions require password and close on logout.
- **Web Server** – HTTP and HTTPS access to the BMC’s web server.
- **SMTP Alerts** (e-mail) – Provides alerts from the BMC even when the OS is not running.

Advanced Screen 1 – SNMP, KVM and Telnet Configuration

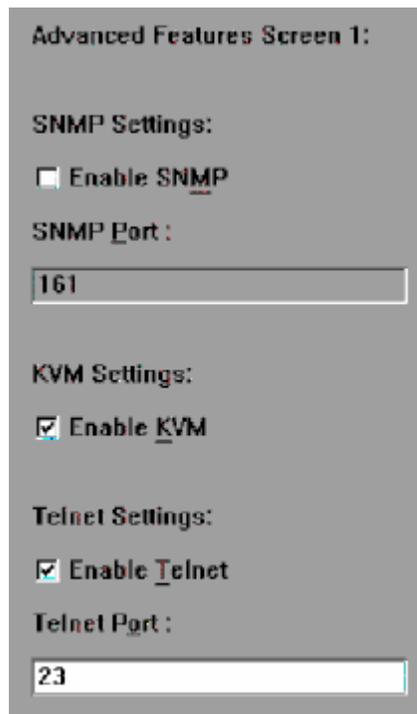


Figure 21. Advanced Screen 1 – Telnet, KVM

- **SNMP Enable:** SNMP v1, v2 and v3 are supported.
- **SNMP Port #:** Default port number is 161. Range is 1 – 65535.
- **KVM Enable:** Allows use of ARSC viewer on managing console.
- **Telnet Enable:** Allows telnet session into the BMC
- **Telnet Port #:** Default port is 23. Range is 1-65535

Port numbers for SNMP, Telnet, HTTP and HTTPS should not be shared between services.

Advanced Features Screen 2 – Web Configuration

Advanced Features Screen 2:
HTTP Settings:
 Enable HTTP
HTTP Port :
80
HTTP Host Name :
FileServ1
 Enable HTTPS
HTTPS Port :
0

Figure 22. Advanced Screen 2 – Web

- **Enable HTTP:** When enabled, HTTP sockets are opened and threads enabled.
- **HTTP Port #:** Default port number is 80. Range is 1-6553
- **HTTP Host Name:** Domain name and HTTP host name of this server.
- **Enable HTTPS:** HTTP with SSL encryption. Only available on some versions.
- **HTTPS Port #:** Default port number is 80. Range is 1-65535

Advanced Features Screen 3 – SMTP Alert Settings

SMTP Alerts may be sent via SMTP (email) as well as through the standard IPMI alerting methods. These email alerts from the BMC can be sent even when the OS is not running.

Advanced Features Screen 3:
SMTP Alert Settings:
Sender Machine Name :
Server3
From Address :
Server3@abc.com
To Address :
ServerAdmin@abc.com
Subject :
ALERT from Server 3

Figure 23. Advanced Screen 3 – Alert Contents

- **Sender Machine Name:** Local machine name that will appear in the alert e-mail message.
- **From Address:** The e-mail address that will show in the from field (should identify the server).
- **To Address:** Must be a valid e-mail address of the device/person to receive the e-mail.
- **Mail Subject:** Any text string but recommended to describe the system for easy management of multiple systems.

8 Set and Save the Configuration

By default, the configuration is saved only to the local server and not to a file. If you wish to save the configuration for later restoration on this server or for unattended configuration on an identical server model, place a checkmark in the Save Server Configuration to Disk box. A Windows style GUI is used to find the file location. The configuration may be saved to any removable media that is formatted for FAT (FAT16) that is visible to the utility. (See Appendix B.)



Save Server Configuration to Disk

Figure 24. Save to Disk Option

Install an Operating System (certain platforms only): This option reminds the user that they may insert the OS installation CD so that it will automatically start loading after a reboot (if not already installed).

Actual Configuration of this server will start after the Continue button on the last screen is pressed. The wizard will exit so that additional configuration changes cannot be made and the configuration utilities will set up the server. The server will then be rebooted.

9 Server Configuration Utilities

There are multiple underlying utilities that SCW uses to perform the actual configuration or that are available in the DOS partition. Most are platform dependent as is the list of which will be shown in SCW. The DOS partition utilities include:

SYSCFG – shown as Run System Setup Utility. Used to configure BIOS, Users, and Channels

FRUSDR – shown as Run FRU/SDR Load Utility

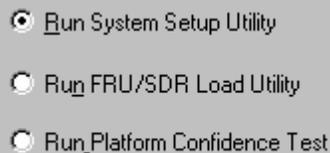
Run Platform Confidence Test– Actual executable name varies –not run unless checked here..

BMCCFG – Probes and sets the BMC Only run from SCW, not separately.

FSPROBE – Probes the FRUs. Only runs from SCW, not separately.

FRU and SDR Viewers –for specialized advanced uses – not run from SCW.

FWPIAUPD – used to update (not configure) BMC firmware. Not run from SCW.



Run System Setup Utility
 Run FRU/SDR Load Utility
 Run Platform Confidence Test

Figure 25. Separate Utilities

- Choosing Continue will run the selected utility and then return user to the SCW User Interface.
- Removable media can be used to save configurations from these utilities if properly formatted and visible to the utility. (See Appendix B).

10 Loading a Configuration from a Diskette

If a previous SCW configuration has been saved to removable media, that file may be used on identical machines to run SCW in unattended mode. The GUI displays the standard Windows interface to help locate the file. Settings from this file will be written to the server and a reboot should occur.

11 Creating Diskettes

SCW provides the option to place the OS level Device Drivers on removable media. Choose drivers by OS or drivers per device. Multiple selections may be made at one time on the drivers or OS screens and available choices vary by platform.

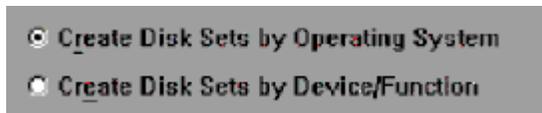


Figure 26. Disk Set Selection

- Continue will switch to DOS to place the drivers onto the media.
- If multiple disks are needed, SCW will prompt for them.
- Any removable media may be used that is formatted for FAT16 and is seen by the utility. (See also Appendix B).

Appendix A. Acronyms and Glossary

Term	Definition
Alerts	LAN, Modem, or email notifications
ARSC	Advanced Remote Server Control (KVM redirect)
BMC	Baseboard Management Controller – found on the IMM
BYO/PCT	Platform Confidence Test
CLI	Command Line Interface
FAT	File Allocation Table, FAT 16 is a DOS 6.22 file format. DOS 7.1 and Windows after Windows 98 use FAT32 or NTFS.
FRU	Field Replaceable Units
GCM	Advanced Module NIC (Generic Communication Module)
GUI	Graphic User Interface
HSBP/HSC	Hot Swap Back Plane or Hot Swap Controller
HTTP	Hyper Text Transfer Protocol
HTTPS	HTTP with SSL encryption.
IPMI	Intelligent Platform Management Interface
IMM	Intel Management Module (Professional and Advanced Edition Modules)
ISM	Intel Server Manager
KVM	ARSC, Keyboard/Video/Mouse redirection
LAN	Local Area Network
NIC	Network Interface Controller (LAN connection)
OOB	Out of band
Paging	Sending Alerts
Privilege Level	User, Operator or Admin access levels
SCW	Server Configuration Wizard
SDR	Sensor Data Records
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
SOL	Serial over LAN

Appendix B. Removable Media Considerations

1. Required Format:

The working environment of the Intel® Server Resource Toolkit CD at boot and hence the environment for SCW and the other utilities for the SE 73xx, SE75xx and SE8500 platforms is ROM-DOS, which uses the FAT16 file format. Only media that is formatted as FAT or FAT 16 (but not NTFS or FAT32) may be used for file saves. (This applies to hard drives, floppy drives, USB keys, USB floppy drives, et al)

To format a removable media device as FAT 16:

1. Boot the system from the Toolkit CD or from an MS-DOS 6.22 or earlier DOS floppy.
2. If the USB key has already been formatted, use fdisk to delete the existing partition. (This can be avoided if there is non formatted space on the media which can be used to create another partition). Create a new partition, activate that partition, and reboot.
3. From the boot drive (the DOS media) prompt, type “format x:” where x is the drive letter of your USB device. For example if you booted your server from the Toolkit CD and wish to format a small partition on the hard drive as FAT you could type:

```
C:\format e:
```

Drive C is the CD that was booted from, (not writeable), drive D: is the stateless RAM disk created by the boot, so hard drive letters would start at E.

4. To make the drive bootable use “format e: /s” to transfer the system files to the new drive. A bootable removable media device is NOT required for running SCW.

2. Making a USB device viewable from DOS

Intel® Servers based on the chipsets listed in this Appendix have a BIOS option that allows ROM-DOS to see a USB device.

To enable USB devices in the BIOS for DOS access

SE7221, SE732x, and SE752x chipset based Intel® servers

1. Place the USB key into a USB port of the server board. It may be formatted or unformatted.
2. Enter BIOS Setup by pressing F2 during post.
3. Choose the Advanced tab, select USB Configuration, press enter.
4. Choose USB Mass Storage Device Configuration, press enter.
5. Choose Emulation Type and choose the Hard Disk option.
6. Press F10 to Save this configuration and exit the BIOS setup.
7. The USB device will be seen as a hard drive by the BIOS.

SE8500 chipset based Intel® servers

1. Place the USB key into a USB port of the server board.
2. Enter the System Option Menu (press any key at the splash screen just after POST)
3. Choose Boot Maintenance Manager. Then choose boot options, select Legacy Hard Drive Order, choose Hard Disk Drive_00, and click on your USB device.
4. Save changes, exit the BIOS setup, and reboot.