Nortel Communication Server 1000E

Nortel Integrated Conference Bridge Professional

Installation Guide

ICB Professional Release 4.5 Standard 01.01   June 2007

NORTEL

Nortel Communication Server 1000E

Nortel Integrated Conference Bridge Professional

Installation Guide

Publication history

May 2007	Version 00.01 ICB Professional Release 4.5, Preliminary, Updated for internal review.
June 2007	Version 01.01 ICB Professional Release 4.5, Standard, Updated after internal review.

Contents

List of Figures

List of Tables

About this document

The Nortel Integrated Conference Bridge Professional (ICB Professional) release 4.5 Installation Guide is intended for use by system installation professionals. Installers should use this document to guide them on how to install and configure the Nortel ICB Professional.

This document references the *ICB Professional System Administration Guide* and the ICB Professional User Guide. The installation technician should have easy access to both *Guides*.

It is assumed that the installation technician is familiar with standard network and telephony communication concepts, terminology and procedures. These topics are not referenced here.

It is also assumed that the necessary electrical, network and telephony communication infrastructures are in place.

Structure

This document contains the following sections:

- **Product Overview** (page **1**) - Describes the features, capacity, and general operation of the ICB Professional.

- **Installation and Configuration** (page **7**) - Describes the steps necessary to install and configure the ICB Professional.

- **Administration Functions and Features** (page **27**) - Provides an overview of basic administrative steps.

- **Supported Nortel Systems** (page **65**) - Provides the configuration instructions needed for Nortel Succession system CS1000E.

Product Overview

Introduction

Nortel presents Integrated Conference Bridge Professional (ICB Professional) release 4.5. The ICB Professional "Meet-me" service provides the capability to hold audio conferences between distant offices. At the scheduled conference time, each participant either calls the telephone number set for the conference or is called by the conference chairperson and is connected to the audio conference.

ICB Professional supports various types of meetings:

- Regularly scheduled meetings with defined start and end times.

- Permanent or "always on" bridge meetings, which can be accessed at any time.

- Emergency, or ad hoc, bridge meetings.

More than one active meeting can exist simultaneously on the same system, limited only by port capacity and configuration of the conference access numbers.

The new release combines Nortel's feature-rich application Integrated Conference Bridge (ICB), bringing together years of field experience and customer feedback, with a new state-of-the-art hardware platform optimized for high capacity.

Position in the System

ICB Professional is a stand-alone 19" 1U Server. It directly receives 100V/240V AC power. Its main interfaces with the rest of the system are a LAN connection and E1 or T1 lines.

Figure 1
Position in the System
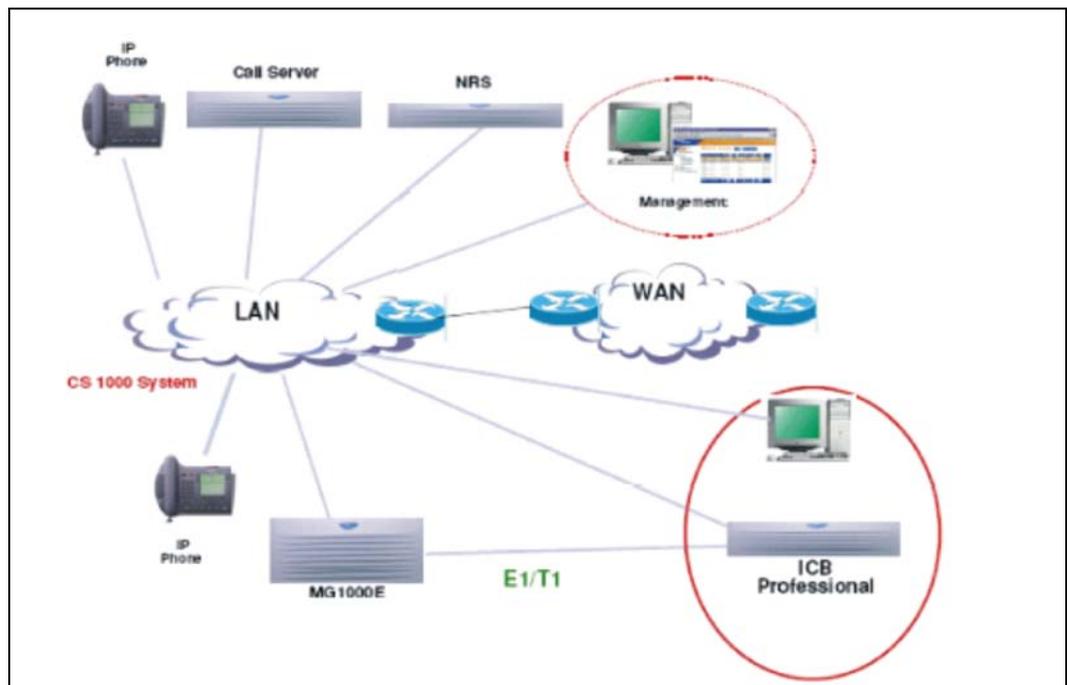
One or two E1/T1 lines can be connected to a Public Automatic Branch eXchange (PABX/PBX). These E1 or T1 trunks use Integrated Services Digital Network (ISDN) Primary Rate Access (PRA) signaling.

Features List

General

General features in this release of the ICB Professional are:

- Scheduled audio conferences with user-specified duration, or always-on conferences.
- Emergency meetings.
- Up to 60 conference ports in E1 Connection.
- Up to 42 conference ports in T1 Connection.
- Up to 20 conferences simultaneously, in any combination of sizes.
- Multi-language voice prompts.

End-User Features

End-user features in this release include:

- Three possible user interfaces for scheduling conferences:
  — Microsoft Outlook integrated user interface.
  — Web Browser interface.
  — Telephony user interface (TUI) with menu-driven scheduling.
- Chairperson control of the conference by Web Browser and/or TUI.
- Current speaker indication to chairperson.
- User control of their voice port by telephone commands.
- Scheduling confirmation sent to the user by e-mail for each scheduling operation from Web Browser or TUI.
- Group Call-out.
- Options for initiation of automatic group call:
  — When conference becomes active, or
  — When chairperson joins the conference.
- Recurring conferences.
- Optional password security and advanced security using a unique PIN for entering the conference.
- Optional spoken name announcement of entry of participants to the conference, and several announcement options.
- Chairperson and Participant Help.
- Conference specific greetings.
- Pre-meeting and post-meeting caller notification.
- Participant voting action by TUI.
- Participant question request by TUI -- for example, raising questions during lectures.
- Up to two "End of meeting" warning announcements, at ten (10) and two (2) minutes.

Administration Features

Administration features of this release of ICB Professional are:

- User-friendly Web Browser interface for administration, including an "**Install Wizard** (page **17**)".
- Configuration of E1/T1 parameters.
- Definition of Users and User Groups.

- Billing of conference usage and outgoing calls.
- Configuration of default meeting parameters.
- Application Traffic Report.
- Brandline greeting recording from a telephone.
- Customized Web Browser Login window.
- Customized format of scheduling notification E-mail from Web Browser.
- Reservation of one port for TUI purpose (optional).
- Automatic backups.

All these features are described in details in the following chapters.

System Capacity

System capacity of the ICB Professional is as follows:

- Number of TDM ports: up to 2 E1 (60 ports) or 2 T1 (42 ports) lines.
- Conference size: up to 60 ports.
- Maximum number of simultaneous conferences is 20. Total number of ports involved in conferences is up to 60.
- Maximum number of TUI users for scheduling: 5000.
- Scheduling from Web Browser can handle up to 50 users simultaneously.

Release Limitations

Please note the following limitations in this release of ICB Professional:

- Meetings can be scheduled up to one year in advance, on all scheduling interfaces (Web Browser, TUI, and Outlook).
- The following TUI services are provided in English only:
  — Scheduling of meetings
  — The voice prompts during recording sessions by the administrator of brandline greetings and custom greetings for permanent conferences are in English only. The greeting itself can be in any language supported by the system.
- Web Browser is in English only.
- Browsers on Windows supporting ICB Professional Web Browser access:
  — Netscape release 4 and later
  — Internet Explorer release 5 and later
- Browsers on 'Macintosh' computers are *not* supported.

- Recurring conferences are limited to 52 schedule iterations.

- Microsoft Outlook integration requires Outlook 2000 and later.

- The e-mail server protocol *must* support Simple Mail Transfer Protocol (SMTP).

- Mixing of E1 and T1 communication and special country configurations are not supported.

Installation and Configuration

Installation and Configuration Overview

The major steps necessary for a successful installation of ICB Professional include:

- Setup and installation of ICB Professional hardware
- Initial setup by CLI

    Note: One IP address is required for ICB Professional web access

- Executing the Web Browser Install Wizard for customer configuration of:
  — Basic system settings
  — Access numbers
  — First user
  — E1/T1 ISDN
  — Time settings
- Setting the default system attributes for conferencing
- Defining scheduled backups
- Publishing the ICB Professional forms for Microsoft Outlook
- Defining external switches
- Verifying system connectivity by scheduling a test conference

ICB Professional Package Contents

The ICB Professional package includes the following components:

- 1 ICB Professional system
- 1 Ethernet cable for LAN networks
- 1 Communication cable for RS-232 interface
- 4 Rubber feet

- 1 CD containing ICB Professional documentation

The following cables are required to be ordered from the distributor:

- 1 AC power cable

- 1 or 2 RJ-45 E1/T1 shielded cables, if required

- Coax E1 cables, if required

   Note: The power supply cables are required to be no longer than 4.5 m (14.7637 ft.) in length and to have attachment plugs rated not less than 3A. Flexible power supply cables are required to be compatible with Article 400 of NEC.

Unpacking and Inspection

Unpack and inspect your equipment for damage. Follow the steps in the Prepare for assembly procedure before performing the installation and configurations procedures in this chapter.

Procedure 1

Prepare for assembly

1   Ground yourself before handling any equipment.

2   Remove from the installation site items that generate static charge.

3   Use anti-static spray if the site is carpeted.

4   Remove equipment carefully from its packaging.

5   Visually inspect the equipment for obvious faults or damage.

This procedure is now complete

Assembling the ICB Professional

The ICB Professional may be assembled in a rack or on the shelf of a 19-inch rack chassis.

Procedure 2

Assemble the ICB Professional

1   Place the ICB Professional on a 19" rack mount, either on the rack or on the shelf.

2   Install physical connections.

3   For assembling the appliance in the 19-inch rack, use the existing mounting brackets to connect it on your rack.

4   For use on the shelf, remove the mounting brackets and attach the four (4) rubber feet to the bottom of the appliance in the socket place.

5 Install a #6 AWG ground wire from the ground lug at the back of the ICB Professional to the ground bar of the rack.

This procedure is now complete

Before proceeding, see the ICB Professional Back Panel figure in **ICB Professional Connectors and Cables** (page **9**) for layout of back panel

ICB Professional Connectors and Cables

The ICB Professional system includes the following physical connectors on the back panel:

- 1 AC power connector
- 1 RJ-45 Ethernet connector for Web interface
- 1 RS-232 D-type 9 pin connector for initial programming
- 2 RJ-45 connectors for 100/120 Ohm E1/T1 interfaces
- 2 BNC connector pairs for 75 Ohm E1 interface

See the ICB Professional Back Panel figure for the location of the physical connectors on the back panel.

Figure 2
ICB Professional Back Panel
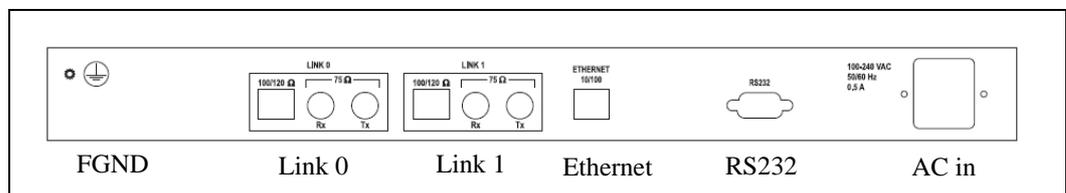
Connecting the ICB Professional Cables

Connect the AC power cable.

The following topics describe the details for connecting the various cable types:

- **RS-232 Connection Details** (page **9**)
- **Ethernet Connection Details** (page **10**)
- **RJ-45 E1/T1 Connection Details** (page **11**)

RS-232 Connection Details

A RS-232 connection is used for initial setup of basic LAN parameters by CLI.

After initial setup, all configuration, administration and maintenance are performed using the Web Browser interface.

Procedure 3

Connect the RS-232 to the ICB Professional

1   Connect ICB Professional RS-232 serial port, D-type 9 pins, to a terminal or a computer with terminal emulation, such as HyperTerminal.

2   For connector pin out, see the RS-232 D-type connector pin out table below.

3   For RS-232 serial port interface settings, see the values in the RS-232 serial port interface settings table.

This procedure is now complete

Table 1: RS-232 D-type connector pin out

Signal name	Pin #
TX	2
RX	3
GND	5

Table 2: RS-232 serial port interface settings

Setting	Value
Transmission speed	19200 bps
Data bits	8
Stop bit	1
Parity	No
Flow control	None

Ethernet Connection Details

Procedure 4

Connect Ethernet to ICB Professional

1   The normal operation of ICB Professional requires a connection from the Ethernet RJ-45 port to an Ethernet hub or router.

2   Refer to the RJ-45 Ethernet connector pin out table for pin out details.

This procedure is now complete

Table 3: RJ-45 Ethernet connector pin out

Signal name	Pin #
ETHTX +/o	1

Signal name	Pin #
ETHTX -/o	2
ETHRX +/i	3
ETHRX -/i	6

E1/T1 Connection Details

Procedure 5

Connect E1/T1 lines

1 Refer to the following procedure steps and the RS-45 E1/T1 connector pin out table for additional details.

2 Two connector sets are available, for link 0 and link 1.

Each connector set provides:

RJ-45 connector:

T1 100 Ohm

or

E1 120 Ohm (twisted pair)

BNC connector pair:

E1 75 Ohm using COAX (shielded) cables

One connector each for receive and transmit signals.

3 When using **E1** you have the choice of *either*:

RJ-45 120 Ohm

or

BNC pair 75 Ohm physical interface type.

They can't work in parallel.

4 After completing E1/T1 configuration for the ICB Professional system, trunk parameters have to be configured in the PBX side. Routing information has to be set up.

5 The following attributes are *fixed*:

E1/T1 clock is always **slave**

PRI side is always **network** side

6 For instructions on configuring additional equipment in the network, see **External Switch Definitions** (page **24**).

This procedure is now complete

Table 4: RJ-45 E1/T1 connector pin out

Signal name	Pin #
TX +/i TIP	1
TX -/i RING	2
Shield	3
RX +/o TIP	4
RX -/o RING	5
Shield	6

System Configuration

Once the physical connections are installed, there are two ICB Professional software installation steps:

- Defining basic parameters by CLI:

  — **Keycodes** (page **13**)

  — **LAN settings** (page **14**)

- Configuring minimum system settings using the **Install Wizard** (page **17**).

Initial Setup by CLI

A **RS-232 connection** (page **9**) must have been made to the ICB Professional for access by the installer.

1) **Overview of the initial steps**

- Powering-up the system.

- Entering the keycodes.

  — Successful entry of keycodes activates the Command Language Interface (CLI) window.

- Accessing the CLI

- Entering LAN settings.

- Verifying the network connections.

- Changing the CLI password.

- Configuring the basic ICB Professional parameters using the **Install Wizard.** (page **17**)

Before starting the system configuration, review the **User Interface Navigation** (page **43**) topic for a description of the available CLI commands.

Keycodes

The system requires keycodes to begin to work. The ICB Professional distributor provides the keycodes for the ICB Professional in accordance to the number ports purchased by the customer.

When the system is installed the first time, the license parameters and keycodes must be entered.

Procedure 6

Enter keycodes

1   Before completing the initial boot, the system displays:

Failed to verify keycode.

// Max conference ports is currently undefined.

// You have to enter value of max conference ports.

max conf_ports: 0

*Modify, Save, Cancel: **m***

// Enter m (modify).

// The system requests number of conference ports

*max conf_ports (0): **60***

// Enter the number of ports that you purchased (decimal).

// The system request Card Feature:

Card Feature (ADVANCED, (1-BASIC)):

*If you have advanced features just enter **<cr>**. If you have basic features, enter **1<cr>***

// The system asks fro confirmation:

*Modify, Save, Cancel: **s***

Enter s to save the parameters.

// The system asks for the key-code, 3 strings of 8 numbers each, as in the following

example:

*Enter key-code1(8 digits): **25654321***

*Enter key-code2(8 digits): **87527161***

*Enter key-code3(8 digits): **90876502***

Succeeded to restore number of ports, wait...

// The system asks for confirmation

Modify, Save, Cancel:

2   Enter the keycodes as in the above example*.*

3   Upon successful entry of the installation keycodes:

The power up completes.

The ICB Professional Logo, Customer defined system name, security number, data collection date/time and IP address display.

The CLI window is available.

This procedure is now complete

LAN settings

If the keycode entry is successful, the CLI displays a login prompt.

Set the LAN parameters as in the following procedure:

Procedure 7

Set LAN parameters

1   Login to the CLI as user **admin** (password is **<cr>**)**.**

2   Change the default directory to System Administration.

HOSTNAME [1 /] **cd sadmin**

HOSTNAME [2 /] **system**

3   The administrator is prompted to modify the following system attributes:

system name - Enter the character string identifier of the ICB Professional installed system, in order to differentiate between different ICB Professional systems.

refresh period minutes - CLI - Specifies the CLI window refresh rate in minutes. Zero (0) means "no refresh".

short occupancy seconds - Specifies the definition of a short call for reporting purposes. Calls below the specified time will be reported as short occupancy calls.

disconnect a lone participant minutes - Specifies how long a participant may be in bridge alone before being disconnected by the system.

4   The following attributes are specific to the definition of system communication via the internet:

subnet mask - Enter the 32 digit binary number subnet mask using the following 4 token format:

XXX.XXX.XXX.XXX, where every XXX is in range 0-255.

A correct subnet mask, when represented as 32 digits binary number, will be as following: 1..10..0, when at least eight first digits are 1, and the last digit is 0.

gateway address - Enter the gateway address in the following format:

XXX.XXX.XXX.XXX, where every token is in range 0-255.

IP address - Enter the internet protocol address, which has same format as the gateway address.

5   See the following example for how to add the LAN parameters:

 // user logs in as Administrator:

Login: **admin**

Password: **<cr>**

// User decides to enter System Admin

HOSTNAME [1 /] **cd sadmin**

// User selects System:

HOSTNAME [2 /sadmin] **system**

// System Object has been selected.

System Attributes:

system name:

refresh period minutes: **0**

short occupancy seconds: **10**

disconnect a lone participant minutes: **0**

subnet mask: **255.255.255.0**

gateway address: **1.1.1.254**

IP address: **1.1.1.1**

Modify, Save, Cancel:

// user is prompted to choose an action

// Modify action is selected. Editor starts prompting

Modify, Save, Cancel: **m**

*system name () :***ICB Pro**

*refresh period minutes (0):***<cr>** *// no change*

*short occupancy seconds (10):***<cr>***// no change*

disconnect a lone participant minutes (0): **<cr>***// no change*

*subnet mask: **255.255.255.0** 255.255.255.0*

*gateway address: **1.1.1.254** 141.226.128.254*

*IP address: **1.1.1.1** **141.226.128.122***

// system shows the new values

New System Attributes:

system name: ICB Pro

refresh period minutes: 0

short occupancy seconds: 10

disconnect a lone participant minutes: 0

subnet mask: 255.255.255.0

gateway address: 141.226.128.254

IP address: 141.226.128.122

Modify, Save, Cancel:

// User decides to save them

*Modify, Save, Cancel: **S***

// System displays that attributes saved and request to restart the system

// User decides to restart the system

System attributes have been updated.

New data will be used following system restart

*Restart the system? (Yes (no)): **y***

This procedure is now complete

Network Connection Verification

To verify a network connection from the ICB Professional CLI, ping to a computer to make sure that ICB Professional is correctly connected to the LAN network.

Procedure 8

Verify a network connection to a computer

1   Login into system as ***admin.***

2   Enter ***cd smaint.***

3   Enter ***ping xxx.xxx.xxx.xxx.***

4   Observe the result of the ping.

5   If unsuccessful, debug according to error messages.

This procedure is now complete

To verify a network connection from a computer on the LAN, ping the system to make sure that ICB Professional is correctly connected to the LAN subnet.

Procedure 9

Verify a network connection from a computer

1   On a computer, click the *Start button* and select *Run* from the *Start Menu*.

2   In the "Open:" field, enter *ping xxx.xxx.xxx.xxx* and click *OK.*

3   Observe the result of the ping.

4   If unsuccessful, debug according to error messages.

Verify the Ethernet cable connection.

This procedure is now complete

Configuration using Install Wizard

Use the Install Wizard to guide you through configuration of the essential ICB Professional parameters. These parameters are necessary for proper operation of the application and do not change frequently.

Procedure 10

Access the Install Wizard

1   Navigate your browser to the main IP address of ICB Professional in **http://xxx.xxx.xxx.xxx** format. The ICB Professional home window displays.

2   Click **Login** on top. A login dialog box displays.

3   Enter the user name **admin**, password **000000** (six zeroes). The **Management Console** displays.

4   For security reasons, change the **admin** password immediately.

Click on the link **Change password** on the top toolbar of the console.

5   Click on the **Install Wizard** link on the upper part of the window.

This procedure is now complete

Note: Before proceeding to the Install Wizard, ensure that all of the required input data for a minimum configuration is available.

For additional details, see "Installing ICB Professional using the Installation Wizard" in the *ICB Professional System Administration Guide*.

Minimum Configuration Steps

This topic outlines the minimum configuration settings required for installing ICB Professional.

For additional setting details, see the "Install Wizard" and "Attributes" subtopics in **Administration by Web Browser** (page **27**).

All Install Wizard windows list steps as buttons on the left side of the window. Clicking the **Submit & Continue** button advances you step-by-step through the installation process.

Procedure 11

Execute the Install Wizard steps

1   In the **Install Wizard,** click **Basic System Settings**.

The **Basic System Settings** window displays.

2   In the **Default Language** list, click the default language for voice prompts.

3   Enter the **IP address of E-mail Server** for sending scheduling confirmations.

4   Enter the **"From" E-mail address by which ICB Professional identifies itself.**

5   Click **Submit & Continue**.

The **Access Numbers** window displays**.**

6   Enter **System Access Number** dialed from within the organization.

7   Enter **TUI Access Number** to ICB Professional telephony services from within the organization.

8   Click **Submit & Continue**.

The **Define First Use**r window displays.

9   In the New User window, enter the user **Name**.

10   In the **User type** list, click **User**, **Super User**, **Executive** or **Administrator**.

11   In the **User access** list, click the interfaces to which the user has access:

Web Browser *or*

Web Browser & Outlook, if Outlook is implemented.

12   Enter the **User ID for browser login**.

13   Enter a unique **Telephony ID** for the PIN password and for TUI services.

14   Enter the **CLID** (calling line ID).

15   Enter the display **Billing account**.

16   Enter the **E-mail address**.

17   Select the **Dial Out allowed** check box.

---

18 Click **Submit** to save.

The **E1/T1 ISDN** settings window displays.

19 For European systems using **E1 ISDN,** use the following values:

a In the **Protocol** list, click **Europe (E1)**.

b In the **Side** list, the permanent value **Network** displays.

c In the **Network Operator ID** list, click **ESTI**.

d In the **CRC4** list, click **Yes** or **No**.

e In the **Impedance** list, click **120** or **75**.

f If you selected **75** in the **Impedence** list, click **Yes** or **No** in the **Shield Ground** list.

g Click **Submit & Continue**.

20 For North American systems using **T1 ISDN,** use the following values:

a In the **Protocol** list, click **North America (T1)**.

b In the **Side** list, the permanent value **Network** displays..

c In the **Network Operator ID** list, click the ISDN operator ID:

National ISDN 1 or **2**

AT&T 4ESS

AT&T 5ESS

DMS100

d In the **Line Code** list, click **AMI** or **B8ZS**.

e In the **Frame Mode** list, click **SF** or **ESF**.

f Click **Submit & Continue**.

21 After completing the E1/T1 ISDN settings, the **Time Settings** window displays.

22 Click the **Update Time** check box and click month, day, year, and time from drop-down lists.

23 Select **DST currently in use** check box, if relevant.

24 In the **Daylight bias** list, click hours and minutes.

25 In the **Time Zone** list, click the time zone.

26 Click **Finish** to save and return to Management Console.

This procedure is now complete

After finishing the Install Wizard steps, configure general settings related to billing, conference schedule confirmations, and backing up data using selections from the Management Console.

Procedure 12

Configure non-Wizard settings

1   In the Management Console Attributes section, click **Define General attributes**.

2   Enter the **Administrator E-mail address** to which the ICB Professional sends administration material, including backup files.

3   In the **Billing option** list, click **Billing reports**.

4   Enter the **System ID** (a four-digit number) that the system uses for billing reports.

5   Click **Submit** to save and return to the console or **Reset** to start over.

6   In the Backups section, click **Define Scheduled Backup**.

7   In the Schedule section, click the automated backup frequency and time.

8   In the Destination section, click

   Zip file sent by E-mail to admin address *or*

   FTP to remote server.

9   If **FTP to remote server** is selected for the destination:

   a   Enter the **IP address**.

   b   Enter the **Path to file**.

   c   Enter the **Login.**

   d   Enter the **Password**.

10   In the Contents section, click the **Data** check box.

11   Click **Submit** to save and return to the console or **Reset** to start over.

12   In the Backups section, click **Billing Scheduled Backup**.

13   In the Schedule section, click the automated backup frequency and time.

14   In the Destination section, click

   Zip file sent by E-mail to admin address *or*

   FTP to remote server.

15   If **FTP to remote serve**r is selected:

   a   Enter the **IP address**.

   b   Enter the **Path to file**.

   c   Enter the **Login**.

   d   Enter the **Password**.

16   Click **Submit** to save and return to the console or **Reset** to start over.

After the installation is complete, you can reach a specific step by clicking its associated button.

Further details are also available for all of the above settings in the *ICB Professional System Administration Guide* under "Browser User Interface".

Outlook Integration Installation

ICB Professional integrates Microsoft Outlook Calendar's Appointment and Meeting functionality to enable users to schedule ICB Professional conferences from within Microsoft Outlook.

ICB Professional files must be published in Microsoft Outlook before users can access and use the ICB Professional form to schedule conferences.

It is recommended that the ICB Professional files be published in the Organizational Forms Library. Otherwise, every user must publish the ICB Professional files in their Personal Forms Library.

If using Outlook Integration, see "Microsoft Outlook User Interface" in the *ICB Professional System Administration Guide* for complete details on installing Microsoft Outlook into ICB Professional.

Topics to be following from the *ICB Professional System Administration Guide* are:

- System requirements
- Microsoft Outlook settings
- ICB Professional form
- ICB Professional files
- Publishing the ICB Professional files in the Organizational Library

Obtaining ICB Professional form files

Before proceeding with the Outlook integration, it is necessary to obtain the ICB Professional files.

Procedure 13

Obtaining ICB Professional form files

1 FTP to the location of the ICB Professional Compact Flash and log in using the following username and password:

Username: **conferencing**

Password: **admin**

2 Copy the following files from the OUTLOOK directory:

ICBP.oft

ICBPs.oft

ICBPsh.oft

ICBPsjc.oft

ICBPsk.of

ICBPsr.oft

See the Secondary Form Files table for the names of the secondary form files and the languages supported by each.

3   Follow instructions for "Publishing the ICB Professional files" in the *System Administration Guide*.

Note: The secondary form files are published *before* the main form file, **ICBP.oft**.

This procedure is now complete

Table 5: Secondary Form Files

Secondary File	Language(s)
ICBPs.oft	American English
	UK English
	Brazilian Portuguese
	Dutch
	French
	Canadian French
	L.A. Spanish
	Swedish
	Italian
	German
ICBPsh.oft	Hebrew
ICBPsr.oft	Russian
ICBPsjc.oft	Japanese
	Chinese
ICBPsk.oft	Korean

Publishing ICBP Files in an Organizational library

The secondary form files are published before the main form file, **ICBP.oft**.

Note: The form file names are case sensitive. Be sure to type the names exactly as described below.

Publishing the Secondary Form

Procedure 14

Publish the secondary form

1   Select "**Tools->Forms->Choose Forms**" button from **Microsoft Outlook** toolbar.

2   Select the "**User Templates in File System**" option in the "**Look In**" field.

3   Click on the "**Browse**" button and select "**Desktop**", which is where you located the **ICBP** form files.

     Note: Now double-click on one of the secondary forms according the supported languages by MS Outlook in the organization. In the following example English secondary form is used.

4   Double-click on **ICBPs.oft**. The **Select Folder** window displays.

5   Click **No** if prompted to **Enable macros**.

6   Click **OK** in the **Select Folder** window. The **Calendar** window displays.

7   Choose **Tools > Forms > Publish Form As**. The **Form As** window displays.

8   Select **Personal Forms Library** in the **Look In** field.

9   Enter **ICBPs** in **Display name** and **Form name.**

     Note: Name is identical to the secondary form without ".oft".

10   Click **Publish**. Click **Yes** if prompted to replace an existing form.

11   Repeat the above steps for each secondary form.

12   Close the Calendar window. Do not save the appointment.

This procedure is now complete

Publishing the Main Form

Procedure 15

Publish the main form

1   Select "**Tools->Forms->Choose Forms**" button from **Microsoft Outlook** toolbar.

2   Select the "**User Templates in File System**" option in the "**Look In**" field.

3   Click on the "**Browse**" button and select "**Desktop**", which is where you located the **ICBP** form files.

4   Double-click on **ICBP.oft**. The **Select Folder** window displays.

5   Click **No** if prompted to **Enable macros**.

6   Choose **Tools > Forms > Publish Form As**. The **Form As** window displays.

7   Select **Personal Forms Library** in the **Look In** field.

8   Enter **ICBP** in **Display name** and **Form name.**

Note: Name is identical to the main form without ".oft".

9   Click **Publish**. Click **Yes** if prompted to replace an existing form.

10   Close the Calendar window. Do not save the appointment.

This procedure is now complete

External Switch Definitions

Configuration of other equipment in the network may be required. The information to be defined depends on the actual equipment used and network architecture. The **Succession Systems** (page **65**) topic provides the guidelines for these external definitions.

When ICB Professional is connected to a PBX by E1/T1, the trunk parameters have to be configured in the PBX, and routing information has to be set up. See **Succession Systems** (page **65**).

After defining external switches, **schedule a test conference** (page **24**).

Verifying System Connectivity

After external switches are defined, open a new Web Browser session and login into the system as the first user defined. Schedule a conference and place a call to test the product.

Note: Conferencing is *only* possible if all connections are in place, the network definitions are complete and the external switches are defined.

Scheduling a Test Conference

Procedure 16

Schedule a test conference

1   Open a new Web Browser session.

2   Login into the new Web Browser session as the first user defined during the Install Wizard process.

3   Click **New Conference** in the Conference List window.

4   The Schedule a New Conference window opens

5   Configure the parameters in the General Attributes section:

a   In the **Subject field**, enter **TEST**.

b   In the **Description** field, enter **Installation Test**.

     c   In the **Number of Conferees** list, click **4**.

     d   The **Chairperson** default value is the login ID.

     e   The **Owner ID** default value is the login ID.

6   The **Select date** default value is today.

7   In the **Start Time** list, change the start time if the default value is not immediate.

8   In the **Duration** list, select the amount of time required for a test.

9   The remaining fields have defaults or are optional. Select as needed.

10   Click **Set Conference** to save the conference details.

11   The Conference Details window displays.

12   Make note of the Internal Access Number, the Conference Meeting ID and Password, and the Chairperson Meeting ID and password for use during testing the scheduled conference.

13   Select **OK** to accept the conference details or **Edit Conference** to change conference details.

14   See "Scheduling a one-time conference" in the *ICB Professional User Guide* for additional information regarding scheduling a conference.

This procedure is now complete

Testing a Conference

After successfully scheduling a test conference, enter the conference to verify to system connectivity.

During conference entry, the system prompts for the Meeting ID and the optional password defined during the scheduling a conference procedure.

Note: You have the option of using either the *user* **Meeting ID** or the *chairperson* **Meeting ID** when entering the conference. The associated password, if any, must be the one defined for that Meeting ID during the scheduling procedure.

Procedure 17

Test the test conference

1   At the conference time, dial the **Internal Access Numbe**r for dialing within the organization.

2   At the system prompt, using the telephone keypad, enter the **Meeting ID** of either the user or chairperson, followed by the number key (**#**).

3   If the **password** option was used, at the system prompt, enter the *password for the Meeting ID used*, followed by the number key (**#**).

4 If the **name** option was used, at the system prompt, speak your name, followed by the telephone number key (**#**).

Note: Your name will be announced to other participants, if any.

5 After announcing your entry, the system will be placed into conference.

6 If you are the first person entering the conference, you will hear an announcement followed by music.

7 When you hear music, the conference has started and the test is successful.

8 See "Managing a conference in progress" and "Acquiring and releasing chairperson control" in the *ICB Professional User Guide* for additional information about accessing a conference in progress.

9 If you don't hear music, review the installation steps to see where there is a problem, correct and retest.

This procedure is now complete

Try both Web Browser interface and Outlook interface, if installed, for scheduling.

If necessary, return to the ICB Professional **Install Wizard** to change system definitions.

For additional help, see the *ICB Professional System Administration Guide* or the *ICB Professional User Guide*.

Administration Functions and Features

Introduction

System administration is performed mainly via a browser user interface, implemented on a web server, and reached via Ethernet.

A connection for a CRT is supported, to be used for initial installation, system upgrade, debugging purposes and system support actions, such as retrieving log files, etc. The CLI available when a CRT is connected is protected by a user level password. This CLI may also be reached remotely over the LAN by Telnet. Only one Telnet connection can be used at a time.

The administration functions available through the CLI are:

- Configuration of basic system parameters.
- System maintenance.

All other administration functions are performed using the Web Browser.

Administration by Web Browser

System administration and most of the maintenance is performed using the Web Browser interface. This interface uses common HTTP protocol, so it's accessible through firewalls that allow HTTP. Proper functionality requires "cookies enabled" in the browser's options. Administrator user types are displayed with the Web Browser application interface **console** after login. This is a "web portal" that serves as a central access point for all administration and maintenance functions.

The administration functions available through the Web Browser are:

- General parameters and options
- E1/T1 parameter setting
- User Groups and Users administration
- Configuration of Always on conferences
- Global conference attributes

- Group call-out list
- Default meeting parameters
- Working days

All administration functions described in the following sections are accessible from the console. The console shows web links grouped in subjects.

Top Toolbar Functions

The top toolbar is a fixed frame, present during all administration web session.

Procedure 18

Execute a toolbar function

1   Click on its button or link according to the Top Toolbar Functions table below.

This procedure is now complete

Table 6: Top Toolbar Functions

Toolbar Function	Description
Console	Returns to the **Console** from any window of the application. Current window changes are **not** saved.
CLI	Opens a separate window for input and output of Command Line Interface (CLI) commands. See **CLI Commands** (page **42**).
Logout	Terminates the session and returns to the home page login window. The application has also an "**auto logout**" feature: after 30 minutes of idle window (no user input), the session terminates automatically.
Help	Displays help information in a separate window.
Change Password	Allows changing the password of the administration user currently logged in.

Install Wizard

Use the Install Wizard to define the basic parameters required to start using ICB Professional.

The Install Wizard steps include configuration of:

1   Basic system settings

2   Access numbers for conferences

3   First user

4   E1/T1 ISDN

5 Time settings

After completing the Wizard session, the administrator can try operating the system by scheduling a conference and placing calls, provided that the network configuration is already completed.

The Wizard can be re-visited anytime that the basic parameters need to be changed.

See "Installing ICB Professional using the Installation Wizard" in the *ICB Professional System Administration Guide* for further details.

Basic System Settings

In step 1 of the Install Wizard, configure the basic parameters of the ICB Professional system as described in the Basic System Settings table.

Procedure 19

Configure basic system settings

1 In the Basic System Settings window, enter the appropriate field values according to the Basic System Settings table.

2 Click **Submit & Continue** to save and continue to setting Access Numbers or **Finish** to save and exit the Install Wizard.

This procedure is now complete

Table 7: Basic System Settings

Field	Description
Main IP	Read-only field specifying main IP address.
System Name	Up to 15 characters of free alphanumeric text for the system's name.
Signaling Protocol	Read-only field specifying the telephony connection is by E1/T1 trunk.
Default Language	In the **Default Language** list, click the default voice-prompt language for conferences and Telephony Services.
	When scheduling conferences, users can select any language from the available set. This default language applies in case the user does not specify a language. This is also the language of the first prompt played to callers, before they specify the meeting ID.

IP address of E-mail Server	Enter the IP address of the e-mail server that ICB Professional uses for sending scheduling confirmation (with Web Browser scheduling).
	If this field is empty or incorrect, ICB Professional *does not* send e-mail messages. However, the rest of the system operates properly.
	Note: ICB Professional uses SMTP. The e-mail server must support this protocol.
"From" E-mail address, by which ICB Professional identifies itself	Enter the e-mail address which ICB Professional uses to identify itself.
	This e-mail address appears in the **From** field of sent e-mail messages.
	Some e-mail servers require this information. The "factory default" address is `conferencing@company.com`.

Access Numbers

The next step of the Install Wizard is configuring access numbers.

Procedure 20

Configure access numbers

1   Using the Access Numbers table as a guide, enter the appropriate system telephony numbers.

2   These numbers have to be coordinated with the organizational dialing plan.

3   Click **Back** to return to Basic System Settings, **Submit & Continue** to save and continue to Defining First User or **Finish** to save and exit the Install Wizard.

This procedure is now complete

Table 8: Access Numbers

Field	Description
System Access Number	Enter the number dialed to access the system from inside the organization.
	The system access number is the DID number dialed by incoming trunk calls. The PBX sends this number to ICB Professional.
Operator Number	Enter the number of the operator or attendant in the organization which ICB Professional calls when the chairperson invokes the "Call assistant" command in an active conference.

TUI Access Number	Enter the number for access to ICB Professional telephony services from inside the organization.
	Telephony services include scheduling from a telephone, recording, etc.
	The TUI Access Number has the same rules as System Access Number.
Adhoc Group Call Prefix	Enter the Group Call prefix for the optional emergency group call dialing" feature.
	When this prefix followed by a ICB Professional group number is dialed by telephones in the network:
	• The call is routed,
	• An emergency conference is opened, and
	• The group call is invoked from the conference.

Define First User

In step 3, define the first user according to the **User Definition** table descriptions.

It is *required* to add at least one user in order to operate ICB Professional.

Note: After the first user is defined, **Define First Use**r is disabled.

Note: The Add a New User function is available from the Management Console after the Install Wizard is finished.

Procedure 21

Define First User.

1 In the New User window, enter the user details according to the field descriptions in the User Definition table.

2 See "Adding Users" for more details.

3 Click **Back** to return to Access Numbers, **Submit & Continue** to save and continue to E1/T1 ISDN settings or **Finish** to save and exit the Install Wizard.

This procedure is now complete

Table 9: User Definition

Field	Description
Name	Enter the user name.
User type	In the **User** list, click **Executive**.
User Access	In the **User Access** list, click **Web Browser & Outlook** for the administrator.
User group	In the **User Group** list, click **System**.

User ID for browser login	Enter the **User Id** for the user's browser login.
	Range is 4 to 17 characters.
Telephony ID	Enter the **Telephony ID** for the user.
	Range is 4 to 10 digits.
CLID	Enter the Command Line Interface ID **(CLID)** for the user.
	Range is 0 to 32 digits.
Billing account	Enter the **Billing Account** for the user.
E-mail address	Enter the user's **E-mail address** for schedule confirmation notifications.
Dial Out allowed	Select the **Dial Out allowed** check box to allow dial out capability.

E1/T1 ISDN

In step 4 of the Install Wizard configure E1/T1 trunk parameters.

Note: Parameters must be consistent for the switch type. See **E1/T1 Connection Details** (page **11**) and **Succession Systems** (page **65**) for parameter details.

Procedure 22

Define E1/T1 parameters

1   In the E1/T1 ISDN settings window, enter the ISDN settings appropriate the country in which the system is being installed.

2   For European systems using E1 ISDN, select from the values described in the E1 Parameters table.

3   For North American systems using T1 ISDN, select from the values described in the T1 Parameters table.

4   Select **Back** to return to Define First User. Click **Submit & Continue** to save and go to Time Settings or **Finish** to save and finish.

This procedure is now complete

Table 10: E1 Parameters

Field	Descriptions
Protocol	In the **Protocol** list, click the ISDN/PRA protocol type: • Europe (E1)
Side	The **Side** list displays the permanent value **Network**.
Network Operator ID	In the **Network Operator ID** list, click the ISDN operator ID: • ETSI
CRC4	In the **CRC4** list, click **Yes** or **No**.

Impedance (Ohm)	In the **Impedance** list, click 120 or 75.
	The selection of "Impedance" implies the physical trunk connection used:
	• RJ-45 for 120 Ohms
	• BNC for 75 Ohm
Shield Ground	In the **Shield Ground** list, click **Yes** or **No**.
	For 75 Ohm, the **Shield Ground** option may also be specified..

Table 11: T1 Parameters

Field	Description
Protocol	In the **Protocol** list, click the ISDN/PRA protocol type:
	• North America (T1)
Side	In the **Side** list, the permanent value **Network** displays.
Network Operator ID	In the **Network Operator ID** list, click the ISDN operator ID:
	• National ISDN 1 or 2
	• AT&T 4ESS
	• AT&T 5ESS
	• DMS100
Line Code	In the **Line Code** list, click AMI or B8ZS.
Frame Mode	In the **Frame Mode** list, click SF or ESF.

Time Settings

The last step in the Install Wizard process is configuring the time settings. This section contains values used to set the date and time, time zone, and Daylight Saving Time.

2) **Automatic Daylight Saving Time**

Use the settings in this section to automatically update the time settings to DST. These settings are particularly useful in countries where the dates are fixed.

3) **Current Local Time**

Displays the current local time settings currently effective in ICB Professional:

• Day of the week, date, time

• Standard Time Zone from GMT

• Daylight Saving Time (DST) status

• Current Time Offset from GMT

Procedure 23

Update Time Settings

1   In the Update Local Time area, update the local time settings as necessary according to the descriptions in the Local Time table.

2   In the Automatic Daylight Saving Time area, click **None** or **Automatically set Daylight Saving Time**.

3   If **Automatically set Daylight Saving Time** is selected, set the start-day and end-day as required for the local country:

4   In the **Start Day** lists, click the start date parameters.

5   In the **Last Day** lists, click the last date parameters.

6   Click **Back** to go back to E1/T1 ISDN settings or **Finish** to save and exit from Time Settings and the Install Wizard.

This procedure is now complete

Table 12: Local Time

Field	Description
Update Time	To update the current local time, click the **Update Time** check box.
	Click the month, day, year, hour and minutes from the drop-down lists.
	Select the **DST currently in use** check box if the updated time represents DST.
	Update this setting on installation, to make time corrections, or to manually adjust for daylight saving time.
Daylight Bias	In the **Daylight Bias** lists, click the daylight bias hours and minutes.
	Specify the difference between DST and standard time, which is one hour in most countries.
Time Zone	In the **Time Zone** list, click the local time zone.
	Set to the time zone of the local **standard time** or to the offset from Greenwich Mean Time (GMT).
	Time zone is displayed in the Web Browser scheduling windows and in the scheduling confirmation e-mails
IP address of Network Time Server	Enter the **IP address of the Network Time Server.**
	This optional feature is used to keep time synchronized with a network time server by Network Time Protocol (NTP). The system uses it only for synchronizing hour boundaries; it will not change date or hour by network time server. Therefore, date and time must be set initially even if this option is used.

Attributes

The Attributes section contains information about the various parameters and attributes used in customizing the ICB Professional system.

General Attributes

Use the **Define General attributes** option to define general system and conference settings.

Procedure 24

Define general system and conference settings

1   From the Management Console, click **Define General attributes**.

2   The General attributes window displays.

3   Define default general attributes as described in the General Attributes table.

4   After defining the required system attributes, click **Submit** to return to the console or **Reset** to start over.

This procedure is now complete

Table 13: General Attributes

Field	Description
Administrator E-mail	Enter the e-mail address to which the ICB Professional sends administration material, including backup files. Default address is admin@company.com.
Billing option	In the **Billing option** list, click a billing option for this ICB Professional Compact Flash. The options are as follows: • No billing - The ICB Professional does not issue a billing report. • Billing reports - The ICB Professional issues a billing report.
System ID	Enter the System ID (a four-digit decimal number) that the system uses for billing reports. Not applicable if the billing option is not selected.
Ports overbooking	Enter the number of ports added by the Overbooking feature. The available values are shown in the form of M + N, where M is for E1 and 42 for T1. M is the physical capacity and N is the addition for overbooking. Up to 25% overbooking is allowed.

Reserve port for TUI	Select this option to dedicate one of the ICB Professional Compact Flash ports for TUI services access. This option is not available for conferences. When cleared, no port is reserved for the TUI and the TUI will not be accessible if all the ICB Professional Compact Flash card ports are booked. The default for new systems is cleared. *Note*: Only *one* call at a time may access telephony services, regardless of this option
Name recording length	Enter the duration, in seconds, of the spoken name in the name-entry option. When the system prompts a caller for their name, recording takes place for the specified during after the beep. Valid entries are 2-10 seconds. The default is 2 seconds.
Conference auto-generated password length	Enter the length of the conference and chairperson passwords. Valid entries are 4-8 characters. The default is 4 characters.
Meeting close (10 minutes) first warning message	Select this option to set the first warning to be played to all conferees indicating that the meeting is due to be closed in 10 minutes.
Meeting close (2 minutes) second warning message	Select this option to select a second warning to be played to all conferees indicating that the meeting is due to be closed in 2 minutes. The default is cleared.
Week working days	Select the range of working days. The ICB Professional uses this information when creating recurring conferences with the option "Workday" through the Web Browser scheduling interface. Valid values are any day of the week. The default is From: Monday and To: Friday.
Play music to single conferee	Select this option for the first participant in a conference to hear musical until another participant arrives. This is for the initial state only. The first person can stop or restart music by a telephone key pad command.
Send Reminder E-mail	Specify whether a reminder e-mail is sent to the conference originator before the conference starts and when it will be sent. Applies to Web Browser scheduling only.
Outdated conferences and reports	From the drop-down list, select the number of days that the files are kept before deletion. For scheduling data, this field applies to conferences that have already taken place. The system keeps conferences for as long as required. Valid range is 1 to 120 days. The default is 32 days.
Web Browser session idle timeout	Specify the user Web Browser idle session timeout period. Valid range is 1 to 1440 minutes.
Include chairperson details in Outlook invitation e-mail	Select this option to send chairperson details to all conferees. *We do not recommend selecting this option*.

Default Conference

Use **Define Default Conference attributes** to customize the system defaults for new conferences.

Procedure 25

Define default conference attributes

1   In the Management Console, click **Define Default Conference attributes**.

2   The **Default Conference attributes** window displays.

3   Define the default conference attributes as described in the Default Conference Attributes table.

These values can be changed when scheduling a specific conference.

4   Click **Submit**.

This procedure is now complete

Table 14: Default Conference Attributes

Field	Description
User Password	Select a default password which participants must use to enter the conference. The options are: • No password • Automatically assigned by the ICB Professional with a length defined in General Attributes
Chairperson Password	Select a default password that the chairperson must use as part of authentication. The options are: • No password • Automatically assigned by the ICB Professional with a length defined in General Attributes.
Indication for entry and exit	Select how the system announces the entry or exit of a participant. The options are: • Play name on entry and name on exit • Play name on entry and tone on exit • Play tone on entry and tone on exit • Silence (no indication for entry or exit)
Language	Select the default voice-prompt language for conferences and the TUI. The default is American English.
Add ports if needed	Select this option to have the system reserve additional ports to accommodate unexpected participants. The system adds ports only if available at the time. The default is cleared.
Keep one port for the chairperson	Select this option to reserve a port for the chairperson. If this option is not selected, all reserved ports may be occupied by regular participants. In this situation the chairperson may not be able to enter the conference.

When scheduling conferences, users can select any of the available options.

Volume Level

Use the **Define Volume Level attributes** to allow tuning of speech volume levels. In the selection boxes, modification dB values are indicated. Negative values are for attenuation and positive values for amplification.

See "Defining volume levels" in the *ICB Professional System Administration Guide* for details.

Customizing the Confirmation E-mail

Use the **Define Confirmation E-mail** feature to modify the Scheduling Confirmation E-mail template. The Scheduling Confirmation E-mail receipt is sent to the user after scheduling of the new conference call, modification of the existing schedule or deletion of a previously scheduled meeting.

See "Defining a confirmation e-mail" in the *ICB Professional System Administration Guide* for customization details.

Brandline Greeting customization

A system default brandline greeting can be recorded by the administrator, to replace the factory-installed conference greeting that is played when entering to the meeting (*Welcome to the conference call*). The brandline greeting is automatically used in all meetings.

There are two ways to record the new greeting and install it in ICB Professional:

- Recording directly onto ICB Professional from a telephone
- Installing a pre-recorded audio file in ICB Professional.

See "Customizing greetings" in the *ICB Professional System Administration Guide* for details.

User Administration

Conference scheduling can be performed by registered users only. Up to 5000 users can be configured. User types are configured by the administrator. There are four (4) types of users:

- **User** (Regular) - Can schedule and manage own meetings. No access to other users meetings.
- **Super User** - Can schedule meetings on behalf of other users and can manage (view, edit, delete) other users' meetings.

- **Executive**- Can schedule and manage own meetings. An executive user can also view any conference scheduled on ICB Professional Professional by other users, but not edit or delete it.

- **Administrator** - An administrator can set up the ICB Professional system, add users, including super users, delete users, and define an Always on Conference. More than one administrator can be configured.

In the Users section of the Management Console, you may perform the following actions:

- Define User Groups

- View the User List

- Add a New User

- Search for a user

See "Users Administration" in the *ICB Professional System Administration Guide* for details.

Understanding User Groups

This optional feature allows partitioning of ICB Professional system resources (ports) to several user groups. Each group has a number of ports guaranteed for their own use. Ports that are not allocated to any group are shared between all users. Initially only one group exists - **System Group**. This is a special group with 0 ports, hard coded. In a trivial system with no user groups, all users belong in this group.

In an example of a simple system with total of 60 ports, there are the following groups:

- System group: 0 ports

- Group A: 10 ports

- Group B: 20 ports

This leaves 30 (60 - (10+20) = 30) unallocated ports. Users of group A may use up to 40 ports, but only 10 are guaranteed for the group.

Users of group B may use up to 50 ports, but only 20 are guaranteed. All other users in the System group may use up to 30 ports.

Always On Conferences

Always on (Permanent) conferences are configured and managed by administrator only. They are similar to scheduled meetings and have the same options and attributes, but they don't have start time and duration. They are always active. The time and duration fields and the recurrence option do not appear in Always On conferences displays.

The option called "Emergency Conference" is identical to the "Automatic group call out" option in a scheduled conference. The system invokes

group call out to the specified group when the conference starts, is configured, or when the chairperson dials in, as specified. In the first option, group call is re-invoked automatically after system restart.

The ports allocated for Always On conferences are constantly reserved, and not available for other meetings. This is a major consideration for the administrator.

See "Configuring Always on conferences" in the *ICB Professional System Administration Guide* for details.

Call-Out Groups

A call-out group is a list of phone numbers, identified by a 2-digit **group ID**. When a group call-out is invoked in a conference, ICB Professional originates simultaneous calls to the list members and joins them in the conference.

See **User Groups** (page **39**) for details on viewing user groups.

See "Configuring call-out groups" in the *ICB Professional System Administration Guide* for details.

Reports

The following reports are available for viewing and downloading:

- Meetings Log

- Error Report

- Overbooking Report

- Billing Report

- Short Connection Report

The reports generated by ICB Professional are stored as files. Reports for each day are stored separately and can be viewed by the administration Web Browser, or retrieved and viewed externally.

Available Report Commands are:

- **Display Report** - Displays the report logs using the browser.

- **Download...** - Loads the report file to the computer for further processing.

Report files are stored in the system for the duration specified by the **Outdated Conferences and Reports** setting. See **General Attributes** (page **35**).

See "Generating Reports" in the *System Administration Guide* for complete information on accessing reports and report details.

Backups

See "Backing up data" in the *ICB Professional System Administration Guide* for information on the following topics:

- Configuring a scheduled backup

- Configuring a Billing Scheduled Backup

- Executing a manual backup

- Viewing backup history log

- Viewing last backup details

    Note: Billing data is backed up separately from other data.

    Note: Backup files are compressed (zipped).

Restore

The restore operation uses a previously generated backup file to replace existing customer data. The manual restore can be accessed from the Management Console. There is no automatic restore.

For details on the restore data process, see "Restoring data" in the *ICB Professional System Administration Guide.*

Upgrades

Before initiating any upgrades, review the ICB Professional release notes to determine any potential impact on the system.

System Upgrade

ICB Professional includes a security device requiring keycodes to begin to work.

The security device supports keycodes with the ability to sell the product with a minimum of 42 ports and to increase the number of ports to up to 60 for E1 and 42 for T1. The keycode is a password of 24 numbers in three (3) groups of eight (8) digits.

There are two system upgrade types:

- Basic

- Advanced

Software Upgrade

Software upgrades and downloads can be performed remotely. The ICB Professional software upgrade is initiated from the Web Browser.

Two modes are supported:

- FTP mode

The software upgrade is performed through the LAN from a remote FTP Server as specified by the administrator in the web interface.

- Upload mode

  The software upgrade is performed through the LAN via HTTP protocol from the local computer by browsing the file through the Web Browser window.

The upgrade file name must be **upgrade.zip.**

> *Note*: The software upgrade ends with a **restart**. Existing calls are dropped and the web session terminates.

Usually new Outlook files are delivered with the new software and must be published. See **Outlook Integration Installation** (page **21**).

Command Line Interface (CLI)

The Command Line Interface (CLI) is the basic user interface for advanced maintenance and debug procedures.

Access the CLI using one of the following interfaces:

- Terminal or terminal emulation connected to the ICB Professional serial port.

  See **RS-232 Connection Details** (page **9**).

- Remotely by Telnet or a modem.

- From the Web Browser by clicking **CLI** on the Management Console title frame.

There are two login levels:

- **Level 1 - admin** for basic level utilities

- **Level 2 - debug** for expert level utilities.

For additional information, see the ICB Professional *Service Implementation Guide*.

User Login

Use of the CLI requires login with user name and password. The two login levels are:

- **Level 1** represents administration level access to the CLI for administration.

  Sensitive debug-oriented CLI is hidden.

  The initial user name is **admin,** without a password.

- **Level 2** represents full access to the CLI.

  Level 2 access is intended for technical staff.

  The initial user name is **debug** and the password is **gubed**.

The login names and password can be modified by a CLI command.

Note 1: CLI user names and password are for CLI only, and have no relationship to user administration.

Note 2: Level 2 access information should appear *only* in *internal* documents and not in the customer documents.

The key-words "**admin**", "**debug**" and "**gubed**" serve as the default (factory-installed) access authorization and may be modified by a CLI command. The modified values are stored permanently on the ICB Professional Compact Flash. The default values may be restored using a back-door procedure which requires knowledge of keycodes.

Procedure 26

Restore Login Name and Password

In case the administrator cannot remember the login name and password, the default values may be restored using the **rst** (restore) login to the CLI.

See the following example:

Login: *rst*

Enter key-code1(8 digits): *03261743*

Enter key-code2(8 digits): *47326453*

Enter key-code3(8 digits): *53422656*

Passwords have been reset. Please login again

Login: *admin*

See **General Password Information** (page **61**) for default login names and passwords.

This procedure is now complete

User Interface Navigation

CLI commands are organized in a tree structure similar to file system folders and files. Instead of files there are commands.

Navigating the CLI tree is very similar to UNIX file system. See the following figure for the command paths.

Figure 3
User Interface Navigation
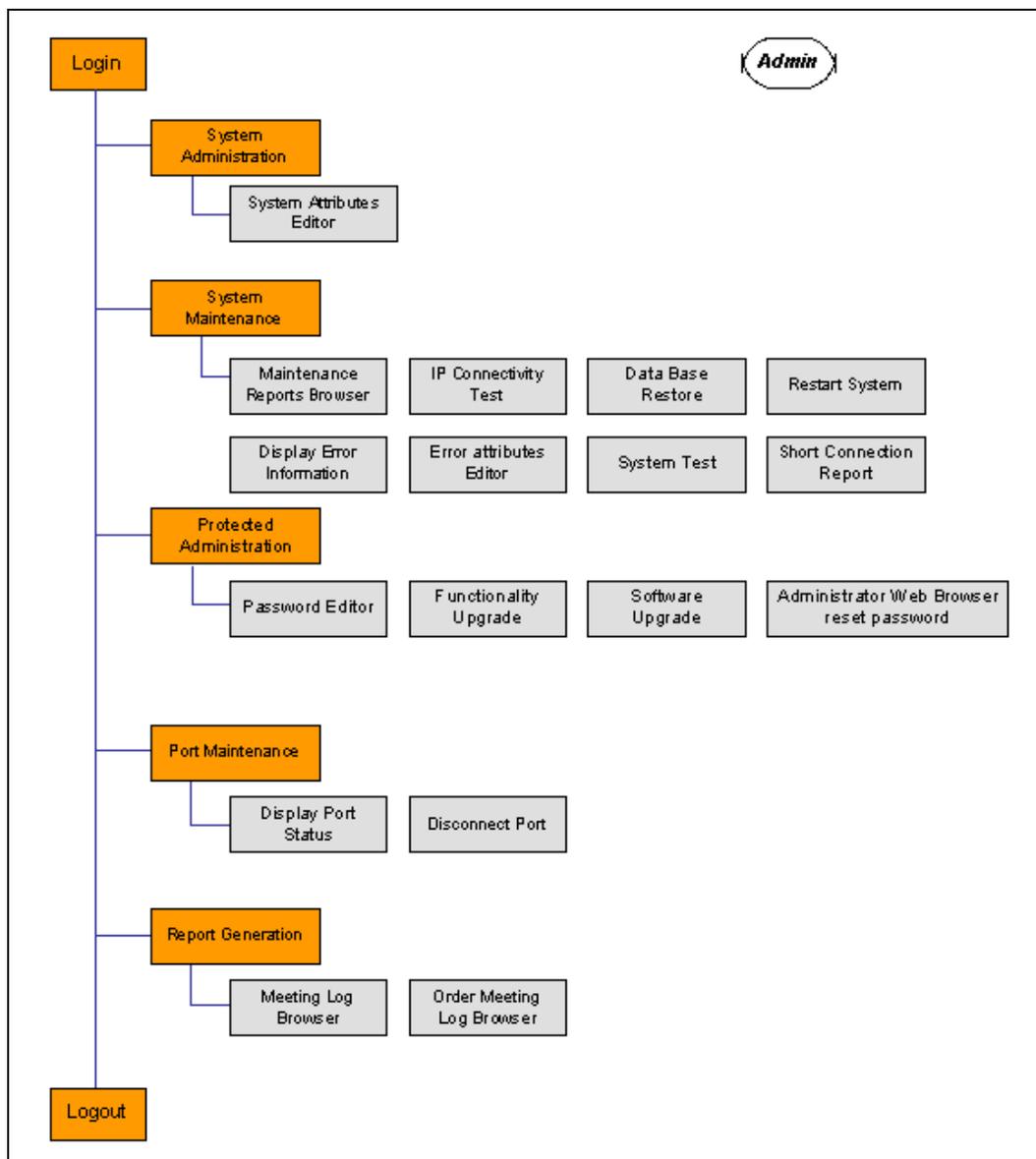
For a list of available commands and the description of their function, see the CLI commands table.

Table 15: CLI Commands

CLI Command	Description
ls	Lists commands and directories in current directory,
cd <name>	Changes the default directory to the one specified.
cd ..	Changes the default directory to one level up.

?	Displays a short description of each command or directory in the current level.

Note: Character input is case sensitive.

Main Menu

The main menu is the top layer which is used for navigation purposes only. See the Main Menu Commands table for management activities available following login validation.

Table 16: Main Menu Commands

Command	Description
sadmin	Sets default to System Administration directory
smaint	Sets default to System Maintenance directory
padmin	Sets default to Protection Administration directory
pmaint	Sets default to Port Maintenance directory
rgen	Sets default to Report Generation directory
logout	Initiates Logout

System Administration

All System Administration commands are performed from within the System Administration directory **sadmin.**

In the CLI, navigate to the **sadmin** directory as described in the Enter the System Attribute Editor procedure below.

Modify the required system attributes according to the attribution descriptions in the sadmin table and the System Attribute Editor procedure that follows.

Table 17: sadmin

Attribute	Description
system name	Character string name identifier of the ICB Professional installed system used to differentiate between different ICB Professional systems.
refresh period minutes - CLI	CLI window refresh rate in minutes. Zero (0) means "no refresh".
short occupancy seconds	Definition of a short call for reporting purposes. Calls below the specified time will be reported as short calls.
disconnect alone participant minutes	Number of minutes a participant may be in bridge alone before being disconnected by the system.
subnet mask	Subnet mask in XXX.XXX.XXX.XXX, format where every XXX is in range 0-255. A correct subnet mask, when represented as 32 digits binary number, will be as following: 1..10..0, when at least eight first digits are 1, and last digit is 0.

gateway address	Gateway address in XXX.XXX.XXX.XXX format, where every token is in range 0-255.
IP address	IP address in same format as gateway address.
Media Stream IP	Media Stream IP in same format as gateway address.

Procedure 27

Enter the System Attribute Editor

1   From the top level directory, enter the following command to get into System Maintenance directory:

  cd sadmin

2   Choose the **help** ("?") command.

At the **system** prompt, the **System Attribute Editor** displays**.**

3   In the System Attribute Editor, select **Edit.**

4   Example of using the System Attribute Editor:

 // user logs in as Administrator:

Login: **admin**

// Time and date of the previous admin login is shown

previous administrator login: Jun. 06, 2006 16:15

// User decides to enter System Admin

HOSTNAME [1 /] **cd sadmin**

// User selects System:

HOSTNAME [2 /sadmin] **system**

// System Object has been selected.

System Attributes:

system name: ICB Professional

refresh period minutes: 0

short occupancy seconds: 10

disconnect a lone participant minutes: 0

subnet mask: 255.255.255.0

gateway address: 141.226.128.254

IP address: 141.226.128.122

Media Stream IP: 141.226.128.124

Modify, Save, Cancel:

// user is prompted to choose an action

// Modify action is selected. Editor starts prompting

Modify, Save, Cancel: m

system name (ICB Professional):<cr> // no change

refresh period minutes (0):<cr> // no change

short occupancy seconds (10):<cr> // no change

disconnect a lone participant minutes (0):<cr> // no change

subnet mask: 255.255.255.0 **<cr>** *// no change*

gateway address: 141.226.128.254 **<cr>** *// no change*

IP address: 141.226.128.122: **141.226.128.123** *// change IP address*

Media Stream IP: 141.226.128.124 **<cr>** *// no change*

// system shows the new values

New System Attributes:

system name: ICB Professional

refresh period minutes: 0

short occupancy seconds: 10

disconnect a lone participant minutes: 0

subnet mask: 255.255.255.0

gateway address: 141.226.128.254

IP address: 141.226.128.123

Media Stream IP: 141.226.128.124

Modify, Save, Cancel:

// User decides to save them

Modify, Save, Cancel: S

System Attributes have been updated.

// User exits and Unattended Console is displayed.

HOSTNAME [3 /sadmin] logout

This procedure is now complete

System Maintenance

Use the commands listed in the smaint table to perform basic system maintenance functions.

All commands are performed from within the System Maintenance directory **smaint.**

Procedure 28

System maintenance

1   Following the example of the System Administration procedure, in the CLI navigate to the **smaint** directory.

    cd smaint

2   Enter the required system maintenance command according to the smaint table descriptions**.**

This procedure is now complete

Table 18: smaint

Command	Description
mreport	Browse Maintenance Reports, according to date, in order to analyze system problems.
ping	PING an IP address to test IP connectivity.
restordb	Restore a customer's database from FTP Server.
crestart	Restart system.
showerr	Show information for specific error code.
erredit	Error report attributes editor.
stest	Set default to System Test directory.
scon	Set default to Short Connection Report directory.
pri	Set default to PRI Maintenance Commands directory

4)   mreport

Use the **mreport** command to browse the Maintenance Error Reports, according to date, for analysis of system problems. The browser operates on a collection of maintenance report files, if any, each containing error messages generated on a particular date.

Procedure 29

Browse maintenance error reports

1   In the CLI, enter **mreport**.

2   Enter the date, in *year-month-day* format, for which the Maintenance Error Report should be displayed.

3   The content of the Maintenance Report file for that day displays. All reports are time stamped and contain information regarding the nature of the problem.

4   After the report is displayed, the system returns to the *year-month-day* prompt using the last selected date as the default value.

5 At the prompt, enter another date, or press PERIOD (.) to exit.

6 To exit before the Maintenance Error Report file has been displayed in full, press ASTERISK (*) + ENTER<cr> during printout.

This procedure is now complete

5) Ping

Use the **ping** command to test where the IP connection is installed and configured properly.

Procedure 30

Ping

1 In the CLI, enter **ping xxx.xxx.xxx.xxx**.

xxx.xxx.xxx.xxx is the object IP address.

2 Ping sends a standard 'ping' packet to the given IP address, to test round-trip path.

3 The result of the ping test displays.

This procedure is now complete

6) Data Base Restore

Use the **restordb** command to copy the customer's database from a FTP server to the working compact flash card device.

Procedure 31

Data base restore

1 In the CLI, enter **restordb [source] [destination]**.

This procedure is now complete

7) Display Error Information

Use the **showerr** command to display error information.

In addition to the error text in the message itself, ICB Professional provides on-line documentation of error messages. The CLI command receives as input the unique error code and displays the related information for this message according to the Error Information table descriptions.

Procedure 32

Display error information

1 In the CLI, enter **showerr**.

2 Use the field descriptions in the showerr table to interpret the error message.

This procedure is now complete

Table 19: showerr

Field	Description
<syntax>	Defines the message syntax.
Meaning	Describes what message indicates.
Parameters	Describes message parameters (fields)
Action	Describes steps the administrator can follow to isolate the problem and/or fix it.
Impact	Describes possible higher level effects of the event.

8) Error Report Editor

Use the **erredit** command to enter the Error Report Editor.

The Error Reports are displayed in the CLI window as well as in the internal ICB Professional's disk.

The Error Reports may be displayed in two modes:

- Long - detailed error report
- Short - summary error report

The Error Report Editor allows configuration of the error report mode and the type of the alarm that should be displayed.

Procedure 33

Error report editor

1 In the CLI, enter **erredit**.

2 Follow the Error Report Editor instructions.

This procedure is now complete

9) System Test

Use the **stest** command to perform system tests.

Two system tests are supported:

- **inserv** - Perform in-service system test.
- **outserv** - Perform out-of-service system test.

Procedure 34

System test

1 In the CLI, enter **stest**.

This procedure is now complete

10) Short Connection Report

Use the **scon** command to set the default to the Short Connection Report directory.

The Short Connect Report displays information on short calls. Short calls may indicate a problem, such as callers disconnecting immediately because they don't reach the expected service.

If the report shows an unreasonable amount of short calls, the problem should be diagnosed. Refer to "Generating Reports" in the *System Administration Guide* for more details.

Two commands are available:

- **print** - Print the short connection report.
- **reset** - Reset all counters to zero.

Procedure 35

Short connection report

1   In the CLI, enter **scon**.

This procedure is now complete

11) PRI Maintenance Commands

Use the commands in the pri commands table to manage PRI transmissions.

Procedure 36

pri maintenance commands

1   In the CLI, enter **pri**.

2   Enter the pri command from the pri commands table.

This procedure is now complete

Table 20: pri commands

Command	Description
PriConfig	Display PRI configuration: protocol, network operator, line coding, framing connection.
LoopStatus	Display loop status (Disable/Enable).
PortStatus	Display number of calls and details about active calls;
AlarmStatus	Display group 1 and 2 alarms.
PllStatus	Display PLL status.
Lpbck	Set/Clear/Display remote/local loopback for PRI loops.

Protected Administration

Execute the padmin table commands within Protected Administration directory.

Procedure 37

Protected Administration

1 From the top level directory, navigate to the Protected Administration directory:

cd padmin

2 Enter the required system maintenance command according to the System Maintenance Commands table descriptions.

This procedure is now complete

Table 21: padmin

Command	Description
fupgrade	Initiate functionality upgrade. Allows or restricts capabilities secured by the keycode.
psweditor	Start the System Password Editor.
swupgrade	Initiate software upgrade from FTP server.
abreset	Reset an administrator's Web Browser password.

12) Functionality Upgrade

Use the **fupgrade** command to access the Functionality Upgrade facility.

Upon selection of "Functionality Upgrade", the user is prompted to enter keycodes which are compared against one stored in non-volatile and protected memory.

Following authentication of the keycodes, the current values of functionality attributes are displayed.

Procedure 38

Functionality upgrade

1 HOSTNAME [1 /padmin] **fupgrade**

2 max conf_ports (42-60)

3 System Feature (ADVANCED, (1-BASIC))

4 Modify, Save, Cancel: **s**

5 Enter key-code1 (8 characters)**:**

6   Enter key-code2 (8 characters):

7   Enter key-code3 (8 characters):

This procedure is now complete

13) Password Editor

Use the **psweditor** command to manage password attributes.

Upon selection of "Password Editor", the ICB Professional displays passwords and related parameters. The parameters are grouped to sections, to allow faster steps. The sections are:

- CLI
- FTP
- TELNET
- Web Browser

Procedure 39

Use password editor

1   HOSTNAME [1 /padmin] **psweditor**

// System displays section name and its parameters and prompts for action

section [CLI]

2   1st level user name: **admin**

3   1st level password:

4   Maximum allowed login attempts: **5**

5   Blocking period (minutes) after login failures: **0**

6   CLI idle timeout in minutes: **15**

7   Modify, Next section, Cancel:

// Actions description:

// Modify - modify this section; system prompts one by one

// Save - save pending changes and continue to next section

// Next - continue to next section

// Cancel - discard all pending changes and exit the command

8   m // modify this section

section [CLI]

9   1st level user name: admin (4-30 chars):**<cr>** // empty input

10   1st level password: (4-16 chars):**<cr>** // empty input

11   Maximum allowed login attempts: 5 (1..10): **\<cr>** // empty input

12   Blocking period (minutes) after login failures: 0 (0..1440): **\<cr>**

13   CLI idle timeout in minutes: 15 (1..1440): **\<cr>**

// Section is re-displayed with modified values for confirmation (not saved yet)

section [CLI]

1st level user name: admin

1st level password:

Maximum allowed login attempts: 5

Blocking period (minutes) after login failures: 0

CLI idle timeout in minutes: 15

14   Modify, Save, Next section, Cancel: **s** // save changes

File was saved.

// Next section is displayed

section [FTP]

FTP/Telnet user name: conferencing

FTP/Telnet password: admin

FTP idle timeout in minutes: 15

Modify, Next section, Cancel: n // next: go to next section

section [TELNET]

15   Maximum allowed Telnet login attempts: **5**

16   Blocking period (minutes) after login failures: **20**

17   Telnet idle timeout in minutes: **15**

18   Modify, Next section, Cancel: **n**

section [Web Browser]

19   Web Browser idle timeout in minutes: **30**

20   Allow CLI input from the Web Browser: **yes**

21   Allow password security: **no**

22   Modify, Cancel: **c**

HOSTNAME [2 /padmin]

This procedure is now complete

14) Software Upgrade

Use the **swupgrade** command to copy new software from a FTP server to the working Compact Flash Card device.

Procedure 40

Software upgrade

1   HOSTNAME [1 /padmin] **swupgrade**

2   Follow software upgrade instructions.

This procedure is now complete

15) Password Reset

Use the **abreset** command to reset an administrator's Web Browser password.

Procedure 41

Password reset

1   HOSTNAME [1 /padmin] **abreset**

This procedure is now complete

Port Maintenance

Execute the Port Maintenance subcommands according to the pmaint table descriptions.

Procedure 42

Port Maintenance

1   From the top level directory, navigate to the Port Maintenance directory:

   cd pmaint

2   Enter the required system maintenance command according to the pmaint table descriptions.

This procedure is now complete

Table 22: pmaint

Subcommand	Description
pstatus	Displays the status of all ports. There are two status modes: • idle • busy
pdisconnnect	Disconnects the specified port.

Report Generation

Access the ICB Professional report generator as follows:

Procedure 43

Report Generation

1 From the top level directory, navigate to the Report Generation directory:

cd rgen

2 Enter the required system maintenance command according to the rgen table descriptions.

This procedure is now complete

Table 23: rgen

Command	Description
mlog	Browser for Meeting Logs. Displays log of conference events for a particular date
order_mlog	Browser for Order Meeting Log. Displays log of conference events sorted by DN for a particular date.

Browse the meetings logs according to the procedures in the following topics.

16) Meeting Log Browser

Use the **mlog** command to browse Meeting Logs, according to date, for meeting tracking. The browser operates on a collection of Meeting Events, if any, each containing events generated on a particular date.

Procedure 44

Browse meeting logs

1 Enter the date, in *year-month-day* format, for which the Meeting Log should be displayed.

2 The contents of the Meeting Log for that day display.

3 After the log is displayed, the system returns to the *year-month-day* prompt using the last selected date as the default value.

4 At the prompt, enter another date, or press PERIOD (.) to exit.

5 To exit before the Meeting Log has been displayed in full, press ASTERISK (*) + ENTER <cr> during printout.

This procedure is now complete

17) Order Meeting Log

Use the **order_mlog** command to display the Meeting Logs for a specific DN and day.

Procedure 45

Browse the order meeting logs

1   Select the required *year-month-day* and DN.

2   The contents of the Meeting Log for that day display.

3   After the log is displayed, the system returns to the *year-month-day* prompt using the last selected date as the default value.

4   At the prompt, enter another date, or press PERIOD (.) to exit.

5   To exit before the Meeting Log has been displayed in full, press ASTERISK (*) + ENTER during printout.

This procedure is now complete

Support Tools

CLI over Web Browser Interface

The CLI can be accessed through the **admin** home window. This may be useful in cases where the firewall does not allow TELNET access from off-LAN locations, but allows HTTP access.

Procedure 46

Open a CLI window

1   Access the Management Console using the Web Browser.

2   Click on the **CLI** icon on the toolbar on top of the window. A separate window opens that shows CLI output and has a field for text entry.

**3**   Enter text as necessary in the text entry field.

This procedure is now complete

Since this option may present a security risk, it can be disabled by the CLI **psweditor** command mentioned above.

Modem Connection

A modem can be connected to the ICB Professional system RS-232 connector. The ICB Professional ignores all RS-232 control signals, so a Modem Eliminator (null modem) is required as described in the figure "Modem Connection".

Figure 4
Modem Connection
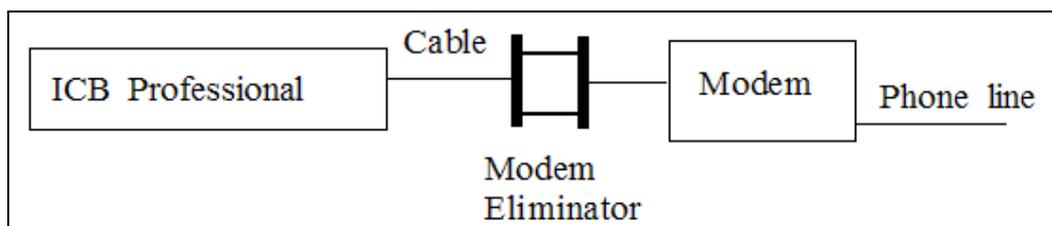
RS-232 setup is as follows:

- Transmission speed: 19200 bps

- Data bits: 8

- Parity: No

- Stop bit: 1

- Flow control: none

TELNET

TELNET access is through the LAN, in the standard protocol. CLI can be accessed by TELNET remotely.

The initial TELNET password is **conferencing.** It is highly recommended to change this password after installation.

FTP

File Transfer Protocol (FTP) is through the LAN in the standard protocol. ICB Professional can be accessed remotely by FTP for file transfers.

The FTP login and password are the same ones defined for TELNET. After login, standard FTP commands apply.

Password Security

Background

The ICB Professional contains the following access interfaces:

- **Web Browser**

Web Browser access is through the LAN by HTTP.

- **TUI**

  Telephone User Interface (TUI) access, for TUI services, requires entry of the TUI login ID, of 1 to 6 digits, and a password. The TUI password is identical to the user's Web Browser password.

- **CLI**

  Command Language Interface (CLI) access requires a direct physical connection to the serial port.

- **TELNET**

  TELNET access is through the LAN, in the standard protocol.

- **FTP**

  File Transfer Protocol (FTP) is through the LAN in the standard protocol.

Access Permissions

Web Browser access (HTTP Server)

There are two security levels for Web Browser access:

18) **Basic Security**

- Login name and password.

- The login name, for users and administrators, is a combination of letters and digits up to 17 characters. The password is digits only; its length is according to the new parameter **minimum password length** described below. Users and administrators can change their password anytime.

- No multiple login sessions simultaneously for the same user.

- In other words, when a user is logged in, no one can login again with the same user ID until the session terminates (logout).

- Only *one* administration session is allowed at a time.

- Only the initial URL (login window) is accessible before passing authentication.

- It is impossible to access any other page or file directly, that is, not through a valid login.

- Inactivity timeout automatically closes the session.

- The timeout parameter can be defined by administrator.

19) Advanced Security

The ICB Professional can be configured to support an additional security level. The configuration can be performed by an administrator using a CLI command. See the *Web Browser* section in **Password Editor** (page **53**) to set *Allow password security* to **yes**.

- The password *must* be a combination of letters and digits. It should include at least one capital letter, one regular letter and one digit.

- The default password *must* be changed after the first login.

- The password should be changed every 90 days.

- The new password should be different for at least three new characters from the old password.

   Note: All limitations are system enforced.

CLI direct connection

Security characteristics for CLI access are:

- Two login levels, equivalent to '**admin**' and '**debug**'.

- Each level has a login name and password, both are changeable through the CLI. Name and password may include letters and digits.

- See **User Login** (page **42**).

- Password is not displayed when typed.

- Every successful login is recorded as an informational message in the error log.

- Upon successful login, last login date and time are displayed.

- Inactivity timeout automatically forces logout.

- The timeout parameter can be defined by administrator.

- The initial user name is **'admin'** with no password. It can be changed at anytime by a CLI command.

   See **Password Editor** (page **53**) for details.

TELNET Server

The CLI can be accessed by **TELNET** remotely. A dedicated login name and password are required for remote access by Telnet. Passing this login grants access to the CLI, which in turn requires its own login and password as described in the previous item. Name and password may include letters and digits.

- The initial login name for TELNET access is '**conferencing**', password '**admin**'.

- The TELNET password can be changed by running the **psweditor** command in directory **padmin**.

- Every successful login is recorded as an informational message in the error log. The message is also printed on the CLI terminal.

FTP Server

ICB Professional can be accessed remotely by FTP, for file transfer. FTP login and password are the same ones defined for TELNET. After login, standard FTP commands apply.

- A dedicated login name and password are required for remote access by FTP. Name and password may include letters and digits.

- The initial login name is '**conferencing'** and the password is '**admin**'.

- The password can be changed by running the **psweditor** command in directory **padmin.**

- Every successful login is recorded as an informational message in the error log. The message is also printed on the CLI terminal.

- Inactivity timeout automatically closes the session. The timeout parameter can be defined by an administrator.

General Password Information

Additional general password information is as follows:

- Files containing passwords are encrypted.

- Minimum length of login name and password can be defined by an administrator as system parameters. The minimum length is enforced when the login name or password are changed.

- Minimum password length applies to all user names/passwords mentioned in this section. It does *not* apply to the conference and chairperson passwords set up in the scheduling window.

- Maximum password length is 16 characters. The maximum length is a hard-code parameter.

- The IP/LAN connectivity does not provide any other way of access through the LAN besides HTTP, Telnet and FTP. There are no 'secret doors'. Technically speaking, the only accessible IP ports are the standard ports of these protocols.

Table 24: Password Summary

Access Type	Default Login Name	Default Password
Administrator Web Browser login	admin	000000
User Web Browser login	no default	000000

Access Type	Default Login Name	Default Password
CLI 1st level	admin	<cr>
CLI 2nd level	debug	gubed
TELNET	conferencing	admin
FTP	conferencing	admin

Handling Faulty Login Attempts

For each failed login attempt, a message is issued to the error log and the CLI. This applies to all access types: Web Browser, TUI, CLI, TELNET, FTP.

Example of the message: (see error format discussion in section)

0024: WARNING MNGMMI114 12-06 15:42:55:612 FTP login FAILED from 152.217.111.234

The system counts consecutive faulty login attempts. When the count reaches the parameter 'Maximum faulty login attempts', which is configurable by an administrator, defensive actions are taken:

- For Web Browser access, user and administrator:

After five (5) consecutive faulty login attempts where the login name is correct but password is wrong, this login name is blocked. It must be reset by administrator to resume normal login.

- For CLI:

After the maximum allowed consecutive faulty login attempts, CLI access is blocked for a period of time. The length of this blocking period can be set by administrator.

- For TELNET:

After the maximum allowed consecutive faulty login attempts, the connection is disconnected. A new connection is refused for a period of time defined by administrator.

- For TUI access:

After three (3) consecutive faulty login attempts, the call is disconnected.

Table 25: Security Parameters Summary

Parameter Description	Range	Default Value
Minimum login name length	4 - 17	4
Minimum password length	4 - 16	4

Parameter Description	Range	Default Value
Maximum password length	*hard-coded*	16
CLI Maximum faulty login attempts	1 - 10	5
CLI blocking period after 'maximum faulty login' is exceeded	0-1440 minutes	0
CLI inactivity timeout	1 - 1440 minutes	15
TELNET blocking period after 'maximum faulty login' is exceeded	0-1440 minutes	20
TELNET Maximum faulty login attempts	1 - 10	5
TELNET inactivity timeout	1 - 1440 minutes	15
FTP inactivity timeout	1 - 1440 minutes	15
Web Browser inactivity timeout	1 - 1440 minutes	30

Remedies for Forgotten Passwords

When a user has forgotten his or her password, use one of the remedies described in the following procedure.

Procedure 47

Reset user password methods

1   Any Web Browser login password can be reset by an administrator, through user management. From the Management Console, select View the User List. See Viewing the User List for more details.

Note: One administrator can reset other administrator's password.

2   When the administrator's Web Browser password is forgotten and there is no other administrator, the password can be reset to 000000 from CLI by the command: **padmin/abreset**. This command resets all Web Browser administrator passwords, if more than one exists.

3   When system (TELNET. FTP, CLI 1st level) passwords are forgotten, the passwords can be viewed by the CLI 2nd level password 'emergency process'.

When a CLI 2nd level password is forgotten, a special 'emergency' process exists for accessing the CLI. This process requires ICB Professional keycodes and a direct connection to the ICB Professional Compact Flash serial port.

See Restore Login Name and Password procedure in **User Login** (page **42**).

See **General Password Information** (page **61**) for default login names and passwords.

This procedure is now complete

CLI Password Change

It is highly recommended to change the "factory-default" CLI and remote access passwords to protect the system. See **Password Editor** (page **53**).

Supported Nortel Systems

The ICB Professional system has an E1/T1 interface and can be connected to the Nortel system as an external device.

Software Packaging

Software packages required for ICB Professional:

1 End-to-End Signaling (EES) (10).

2 North America National ISDN Class II Equipment (NI2) (334) should be restricted to allow configuration of NI2 for TIE.

3 DID to TIE (DITI) (176) should be restricted to allow changing the prompt DID To Tie (DTOT) (system package) in Customer Data Block (CDB) to **Yes**.

ICB Professional Installation at CS1000E

Succession Systems

The Succession switch should be defined to direct the outgoing calls to ICB Professional.

The following example shows the required definitions for ICB Professional with system access number: 7020 and root access 8766 connected to CS1000E with E1 ETSI PRI.

Two CDP or Phantom numbers should be defined for the system access number and for the TUI access number.

2.0 Mb/s Primary Rate Interface - E1 Link Definition

20) E1 PRI Definition

Table 26: LD 17 - CONFIGURATION - CEQU (Change to Common Equipment Parameters)

Prompt	Input	Description
REQ	CHG	Request
TYPE	CEQU	Change to Common Equipment Parameters

PRI2	8	2.0 Mb/s Primary Rate Interface or PRI loop number
...	<cr>	Carriage return until the next line
REQ		

21) E1 D-Channel Definition

Table 27: LD 17 - CONFIGURATION ADAN (Action Device and Number)

Prompt	Input	Description
REQ	CHG	Request
TYPE	ADAN	Action Device and Number
ADAN	NEW DCH 80	Action Device And Number (NEW, CHG, MOV or OUT; I/O device type; port number)
CTYP	MSDL	Card Type
GRP	0	Network group number
DNUM	7	Device number for I/O ports
PORT	0	Port number (range varies according to system option and card/port type)
DES	ICBP	Designator
USR	PRI	User (ISLD, PRI, SHA, SHAV, or VNS)
IFC	EURO	Interface type for D-channel
CNTY	ESTI	Country
PINX_CUST	0	This customer number will be used for the DN address, translation associated with call independent connection.
DCHL	8	D-Channel PRI loop number
SIDE	USR	The system is user side.
...	<cr>	Carriage return until the next the line
REQ		

22) E1 PRI Data Block Definition

Table 28: LD 73 - PRI2 Data Block

Prompt	Input	Description
REQ	CHG	Request
TYPE	PRI2	Type of data block = PRI2
FEAT	LPTI	Feature = LPTI (Loop timer)
LOOP	8	Loop number for PRI2
MFF	CRC	Multiframe Format (AFF or CRC)
ACRC	YES	Automatic reporting of CRC-4 error
...	<cr>	Carriage return until the next line
REQ		

23) E1 Route Data Block Definition

Table 29: LD 16 - Route Data Block

Prompt	Input	Description
REQ	NEW	Request
TYPE	RDB	Type of data block = RDB (Route data block)
CUST	0	Customer number associated with this route
ROUT	980	Route Number
DES	ICBP	Designator field for trunk (0-16 character alphanumeric)
TKTP	TIE	Trunk Type
DTRK	YES	Digital Trunk Route
DGTP	PRI2	Digital Trunk Type (BRI, DTI, DTI2, JDMI, PRI, OR PRI2)
ISDN	YES	Integrated Services Digital Network option
MODE	PRA	Mode of operation (APN, ISLD, or PRA)
IFC	EURO	Interface type for route
CNTY	ETSI	Country
ICOG	IAO	Incoming and Outgoing trunk (IAO, ICT, or OGT)
SRCH	RRB	Search method for outgoing trunk member ((LIN) or RRB)
ACOD	980	Access Code for the trunk route
TARG	0	Trunk Access Restriction Group
...	<cr>	Carriage return until the next line
REQ	END	Request

24) E1 Trunk Data Block Definition

Table 30: LD 14 - Truck Data Block

Prompt	Input	Description
REQ	NEW 30	Request (CHG, END, MOV, LCHG, NEW or OUT)
TYPE	TIE	Type of data block
TN	8 1	Loop number and channel for tandem PRI connection
DES	ICBP	Designator field for trunk (0-16 character alphanumeric)
PCML	A	Pulse Code Modulation Law (MU or A)
CUST	0	Customer number associated with this trunk
NCOS	0	Network Class of Service group
RTMB	80 1	Route member, Member number
TGAR	0	Truck Group Access Restriction

...	<cr>	Carriage return until the next line
REQ	END	

25) Maintenance - D-channel Diagnostic

Table 31: LD 96 - D-channel Diagnostic

Prompt	Input	Description
DIS DCH	DIS DCH 80	This changes the status of the DCH to DSBL and the status of the D-channel to DSH RST (reset).
STAT DCH	STAT DCH 80	Get status of one or all D-channels. If a DCH number is not entered, the status of all D-Channels is output.
ENL DCH	ENL DCH 80	Enable DCH and attempt to establish the link.

26) Maintenance - Digital Trunk Loop Diagnostic

Table 32: LD 60 - Digital Trunk Interface and Primary Rate Interface Diagnostic

Prompt	Input	Description
DISL	DISL 8	Disable DTI/PRI loop when all channels are idle.
STAT	STAT 8	Get status of digital loop.
ENLL	ENLL 8	Enable network and DTI/PRI/DTI2/PRI2 cards of loop.

27) Dialing Network Definition

Table 33: LD 86 - Digit Manipulation definition

Prompt	Input	Description
REQ	NEW	Request
CUST	0	Customer number
FEAT	DGT	Feature = DGT (Digit manipulation)
DMI	2	Digit Manipulation index numbers
DEL	0	Number of leading digits to be Deleted.
...	<cr>	Carriage return until the next line.
REQ		

Table 34: LD 86 -Route List index definition

Prompt	Input	Description
REQ	NEW	Request
CUST	0	Customer number
FEAT	RLB	Feature = RLB (Route list)
RLI	3	Route List Index to be accessed
ENTER	0	Entry number for NARS/BARS Route list

...	<cr>	Carriage return until the next line
ROUT	980	Route number
TOD	0 1 2 3 4 5 6 7	Time of Day schedule
...	<cr>	Carriage return until the next line
DMI	2	Digit Manipulation Index (see last table)
...	<cr>	Carriage return until the next line
REQ		

Table 35: LD 87 - Dialing network definition (Coordinated Dialing Plan)

Prompt	Input	Description
REQ	NEW	Request
CUST	0	Customer number
FEAT	CDP	Feature = CDP (Coordinated Dialing Plan)
TYPE	DSC	Type of steering code
DSC	3190	Distant Steering Code
DISP	LSC	Display
RLI	3	Route List to be accessed for Distant Steering Code (see last table)
...	<cr>	Carriage return until the next line
REQ		

28) Phantom Number definition

Table 36: LD 10 - Phantom Number definition

Prompt	Input	Description
REQ	NEW	Request
TYPE	500	Type of data block
TN	56 0 0 1	Terminal Number
DES	ICBP	Office Data Administration System Station Designator
CUST	0	Customer number
DN	3199	Directory Number
...	<cr>	Carriage return until the next line
CLS	CFXA	Class of Service options. Call Forward All Calls to external DN Allowed
...	<cr>	Carriage return until the next line
FTR	DCFW 12983190	Default Call Forward (Access Code for the trunk route + ICB Professional Access number)

1.5 Mb/s Primary Rate Interface - T1 Link Definition

29) T1 PRI Definition

Table 37: LD 17 - CONFIGURATION - CEQU (Change to Common Equipment Parameters)

Prompt	Input	Description
REQ	CHG	Request
TYPE	CEQU	Change to Common Equipment Parameters
DLOP	28 24	Digital Trunk Interface Lop or Loops, number of voice or data calls.
MODE	PRI	Mode of operation (LINK, PRI, or TRK)
LCMT		Line Coding Method BBS or AMI
YALM	FDL	Yellow Alarm Method FDL or DG2
TRSH	00	Threshold
...	<cr>	Carriage return until the next line
REQ		

30) T1 D-Channel Definition

Table 38: LD 17 - CONFIGURATION ADAN (Action Device and Number)

Prompt	Input	Description
REQ	CHG	Change
TYPE	ADAN	Action Device and Number
ADAN	NEW DCH 28	Action Device and Number (NEW, CHG, MOV or OUT; I/O device type; port number)
CTYP	MSDL	Card Type
GRP	0	Network group number
DNUM	6	Device number for I/O ports
PORT	0	Port number (range varies according to system option and card/port type)
DES	ICBP	Designator
USR	PRI	User (ISLD, PRI, SHA, SHAV, or VNS)
FC	ESS4	Interface type for D-channel
DCHL	28	D-Channel PRI loop number
SIDE	USR	The system is user side.
...	<cr>	Carriage return until the next line
REQ	END	Request

31) T1 PRI Data Block Definition

Table 39: LD 73 - PRI Data Block

Prompt	Input	Description
REQ	CHG	Request
TYPE	DDB	Digital Data Block
TRSH	00	Threshold
...	<cr>	Carriage return until the next line
REQ	END	Request

32) T1 Route Date Block Definition

Table 40: LD 16 - Route Data Block

Prompt	Input	Description
REQ	NEW	Request
TYPE	RDB	Type of data block = RDB (Route data block)
CUST	0	Customer number associated with this route
ROUT	28	Route Number
DES	ICBP	Designator field for trunk (0-16 character alphanumeric)
TKTP	TIE	Trunk Type
DTRK	YES	Digital Trunk Route
DGTP	PRI	Digital Trunk Type (BRI, DTI, DTI2, JDMI, PRI, OR PRI2)
ISDN	YES	Integrated Services Digital Network option
MODE	PRA	Mode of operation (APN, ISLD, or PRA)
IFC	ESS4	Interface type for route
ICOG	IAO	Incoming and Outgoing trunk (IAO, ICT, or OGT)
SRCH	RRB	Search method for outgoing trunk member ((LIN) or RRB)
ACOD	28	Access Code for the trunk route
TARG	0	Trunk Access Restriction Group
...	<cr>	Carriage return until the next line
REQ	END	Request

33) T1 Trunk Data Block Definition

Table 41: LD 14 - Truck Data Block

Prompt	Input	Description
REQ	NEW 23	Request (CHG, END, MOV, CHG, NEW or OUT)
TYPE	TIE	Type of data block
TN	28 1	Loop number and channel for tandem PRI connection

DES	ICBP	Designator field for trunk (0-16 character alphanumeric)
PCML	MU	Pulse Code Modulation Law (MU or A)
CUST	0	Customer number associated with this trunk
NCOS	0	Network Class of Service group
RTMB	28 1	Route member, Member number
TGAR	0	Truck Group Access Restriction
...	<cr>	Carriage return until the next line
REQ	END	

34) Maintenance - D-channel Diagnostic

Table 42: LD 96 - D-channel Diagnostic

Prompt	Input	Description
DIS DCH	DIS DCH 80	This changes the status of the DCH to DSBL and the status of the D-channel to DSH RST (reset).
STAT DCH	STAT DCH 80	Get status of one or all D-channels. If a DCH number is not entered, the status of all D-Channels is output.
ENL DCH	ENL DCH 80	Enable DCH and attempt to establish the link.

35) Maintenance - Digital Trunk Loop Diagnostic

Table 43: LD 60 - Digital Trunk Interface and Primary Rate Interface Diagnostic

Prompt	Input	Description
DISL	DISL 8	Disable DTI/PRI loop when all channels are idle.
STAT	STAT 8	Get status of digital loop.
ENLL	ENLL 8	Enable network and DTI/PRI/DTI2/PRI2 cards of loop.

36) Dialing Network Definition

Table 44: LD 86 - Digit Manipulation definition

Prompt	Input	Description
REQ	NEW	Request
CUST	0	Customer number
FEAT	DGT	Feature = DGT (Digit manipulation)
DMI	2	Digit Manipulation index numbers
DEL	0	Number of leading digits to be Deleted.
...	<cr>	Carriage return until the next line.
REQ		

Table 45: LD 86 - Route List Index definition

Prompt	Input	Description
REQ	NEW	Request
CUST	0	Customer number
FEAT	RLB	Feature = RLB (Route list)
RLI	3	Route List Index to be accessed
ENTER	0	Entry number for NARS/BARS Route list
...	<cr>	Carriage return until the next line
ROUT	28	Route number
TOD	0 1 2 3 4 5 6 7	Time of Day schedule
...	<cr>	Carriage return until the next line
DMI	2	Digit Manipulation Index (see last table)
...	<cr>	Carriage return until the next line
REQ		

Table 46: LD 87 - Dialing Network definition (Coordinated Dialing Plan)

Prompt	Input	Description
REQ	NEW	Request
CUST	0	Customer number
FEAT	CDP	Feature = CDP (Coordinated Dialing Plan)
TYPE	DSC	Type of steering code (LSC, DSC, or TSC)
DSC	3190	Distant Steering Code
DSP	LSC	Display (LSC, LOC, or DN)
RLI	3	Route List to be accessed for Distant Steering Code (see last table)
...	<cr>	Carriage return until the next line
REQ		

37) Phantom Number definition

Table 47: LD 10 - Phantom Number definition

Prompt	Input	Description
REQ	NEW	Request
TYPE	500	Type of data block
TN	56 0 0 1	Terminal Number
DES	ICBP	Office Data Administration System Station Designator
CUST	0	Customer number
DN	3199	Directory Number
...	<cr>	Carriage return until the next line

CLS	CFXA	Class of Service options. Call Forward All Calls to external DN Allowed
...	<cr>	Carriage return until the next line
FTR	DCFW 12283190	Default Call Forward (Access Code for the trunk route + ICB Professional Access number)

List of Terms

.WAV

File format used for string voice files created under Microsoft Windows.

ACD

Automatic Call Distribution.

AMI

Alternate Mark Inversion. An encoding method in T1 and E1 transmission in which consecutive 1s have the opposite polarity in order to maintain ones density. All 0s are sent as 01, while 1s are sent as alternating 11 and 00.

B8ZS

Binary 8 Zeros Substitution. An encoding method in T1 and E1 transmission that substitutes a special bit pattern for 8 consecutive zeros in order to maintain ones density.

Browser User Interface

An interface that allows the administration of OA&M functions on conferences, users, and cards through a standard web browser.

BUI

See Browser User Interface.

Chairperson DN

The directory number the conference person dials to enter the conference.

CLI

See Command Line Interface.

CLS

Class of Service

Command Line Interface

An interface that allows the administration of OA&M functions on cards through TELNET or through a standard VT100 terminal.

CPU

Central Processing Unit. A chip that performs logic, control, and arithmetic functions. The part of the switch that performs these functions and any others necessary to process calls.

DID

Direct Inward Dialing.

DLC

Digital Line Card.

DN

Directory Number.

DRAM

Dynamic Random Access Memory. A high density type of semiconductor memory. It typically has slower access time than SRAM and requires external memory refresh circuitry.

DSP

Digital Signal Processing. A specialized computer chip that performs speedy and complex operations on digitized waveforms. Useful in processing sound and video.

DTMF

Dual Tone Multi-frequency. A term describing push-button or touch-tone dialing.

EMC

Electro-Magnetic Compatibility. Refers to equipment units that perform their functions without causing or suffering unacceptable electromagnetic interference from other equipment in the same environment.

ESF

Extended SuperFrame. An enhanced T1 format that allows a line to be monitored during normal operation. See SF.

Firmware

Hardwired logic, software, data, and programming instructions such as that stored by threading wires through ferrite cores. May also refer to software programmed in the factory or burnt in the field, and is semi-permanently stored within ROM.

Flash memory

Electrically erasable memory that is non-volatile (not affected by power disruptions).

FTP

File Transfer Protocol.

HTTP

Hypertext Transfer Protocol.

ICB

Integrated Conference Bridge.

IP

Internet Protocol.

IPE

Intelligent Peripheral Equipment. A range of cards that contain micro-processors that provide off-loading of the CPU function and the flexibility to make changes to the system's parameters without revising the hardware.

ISM

Incremental Software Management.

LAN

Local Area Network.

LED

Light Emitting Diode.

LEN

Line Equipment Number (CS 2100/Meridian SL-100 equivalent of TN).

Main DN

The directory number that conferees dial to enter the conference when using direct access.

MAP

Maintenance and Administration Position.

MAU

Medium Access Unit.

MMI

Man-Machine Interface.

MPU

Microprocessor Unit.

MTBF

Mean Time Between Failure. A measure of reliability: the time that a user may reasonably expect a device or system to work before an incapacitating fault occurs. Also, the average number of horus between one random failure and the next under stated conditions.

MTTR

Mean Time To Repair.

OA&M

Operations, Administration, and Maintenance.

ONP

One Night Process. This is a term to define upgrades that occur over a single night when traffic is slower than during the day.

PBX

Private Automatic Branch Exchange. An automatic telephony switch that is privately owned.

PCM

Pulse Code Modulation.

PCMCIA

Personal Computer Memory Card International Association. This organization has defined a credit card sized plug-in board for use in PCs. These cards are the only way to get a laptop bus without using a docking station. In addition, application software can be stored on the card into system address space so that the software can run directly from the cad, resulting in a faster start and less memory required from the host computer.

RTS

Return To Service.

SCSI

Small Computer System Interface. A device that enables computers to cable-connect to networks or external tape units/hard drives.

SDI

Serial Data Interface. For some Meridian switches, provides pots between the CPU and external devices such as a teletype or maintenance telephone. More generally, an SDI is a mechanism for

changing the parallel arrangement of data within computers to the serial form used on transmission lines and vice versa.

SDN

Secondary Directory Number.

SF

Superframe. A T1 transmission format made up of 12 T1 frames (superframe) or 24 frames (extended superframe). See ESF.

SMTP

Simple Mail Transfer Protocol.

Telephone User Interface

An interface that allows the scheduling of simple conferences over a DTMF telephone.

TN

Terminal Number (CS 1000 equivalent of LEN)

TUI

See Telephone User Interface.

XPM

Extended Peripheral Module.

N🌐RTEL