

PRODUCT OVERVIEW

esi **IVX[®] S-Class** *All-In-One Digital Phone System*

Provides unique flexibility and capabilities for its size

IVX S-Class is ideal for the small to mid-sized business with flexible voice messaging needs and moderate growth requirements. IVX S-Class is initially configured for four lines, eight digital stations, and two analog stations (4 × 8 × 2); its maximum capacity is 16 × 32 × 8. The full-featured **voice mail** includes either six or 30 hours of voice message storage.

Its many features make IVX S-Class an attractive choice for a wide variety of organizations.

Features at a glance

IVX S-Class has a four-line, eight-station, two analog port configuration (see "System capacity," page 5).

- **Impressive expansion capacity** — Handles up to 16 CO lines and up to 40 stations.
- **ESI Feature Phones** — Compact and stylish, yet rugged, the 48-Key Feature Phone and 24-Key Digital Feature Phone each include a high-quality speakerphone, an informative multi-functional display, and a specially designed key layout with several dedicated keys to minimize or eliminate the need to memorize codes. Two digitally integrated Cordless Handsets are also available; each offers four programmable feature keys. A 60-Key Expansion Console is available for the 48-Key Feature Phone; and each 48-Key Feature Phone model includes an integrated headset jack. ESI also offers the 12-Key Feature Phone with similar design and basic functions.
- **Two voice mail options** — Four-channel with six hours of voice message storage **or** six-channel with 30 hours of voice message storage.
- **Enhanced Caller ID** — Allows one-touch automatic message return.¹



Feature summary

- Voice mail
- 10-digit account codes
- Caller ID key
- Distinctive CO ring tones
- ESI Presence Management option
- Optional *VIP™* for *Microsoft® Outlook®*
- *VIP PC Attendant Console™*

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Color brochure available

ESI part # 0450-0451 (Web version downloadable from www.esi-estech.com/brochures).

¹ This and all other references to Caller ID service within this document assume the end-user organization subscribes to Caller ID service from its telephone service provider.

Features at a glance (*continued*)

- **Caller ID key**¹ — When programmed onto a key of a 48-Key or 24-Key Feature Phone, gives the user the ability to scroll through the 25 most recent calls arriving at his station, in four categories:
 - **VM** — Calls in which the caller was routed to voice mail and left a message.
 - **MISS** — Calls in which the caller disconnected before hearing, or during, playback of the user's personal greeting.
 - **ANS** — Calls that were answered at the phone.
 - **RE** — Calls that were rerouted.
- **Extensive help**¹ — Easily accessible with one press of the **HELP** key, ESI's Verbal User's Guide™ uses spoken and displayed help prompts to help everyone from the Installer through the Administrator down to the least experienced end user. You may also go to www.esiusers.com for online help.
- **Live call recording**² — Can record any conversation or personal memo along with moving or copying of any recording to other users' voice mailboxes.
- **Call waiting** — Includes an audible tone with a helpful display, showing both calls' Caller ID information, and easy one-key toggling between calls.
- **Conference calling** — Includes two conference bridges, each of which can include up to four participants. Analog phones on the system also may initiate conferences.³
- **Esi-Dex™ speed-dialing**¹ — Calls any number using three separate lists (personal, station, and system); uses either Caller ID information or direct keypad entries to store numbers.
- **One-character dial-by-name** — Allows you to search through the auto attendant directory and all Esi-Dex directories by just dialing the first three characters of the desired name.
- **Privacy release** — Allows any system user to conference with an in-progress call by pressing a CO line key for the line on which the call is in progress.
- **Dedicated overhead paging interface** — Allows for external paging through overhead speakers or multi-zone paging units (amplification required).
- **911 alert** — Provides immediate line access if any station dials **9 1 1** to report an emergency; sends a message via the serial port indicating the start date, time, station number and end-time of the 911; also sounds an audible warning at the operator station and displays, for example:


```
911 CALL FROM
X102 JOHN JAMES
```
- **Distinctive CO ringing** — Up to six different ring tones are available for outside lines to provide differentiation. Shared-office tenanting operation is greatly enhanced by this unique feature.
- **Account codes** — Let a user verify client billing and manage time more accurately by inserting numerical codes while on a call. Account codes of up to 10 digits can be entered anytime during an inbound or outgoing CO call. Multiple account codes may be attached to different portions of the same conversation.
- **Status indicator lamp** — Indicates three conditions of the 48- and 24-Key Digital Feature Phone: off-hook, ringing, and new voice mail message.
- **NSP (Network Services Processor)** — Allows system programming via TCP/IP, supports *VIP* unified messaging (see "PC-based options," page 7), and can be adapted to support a variety of computer/telephone third-party applications.
- **Caller ID data to analog ports** — Lets non-ESI analog devices on the system take advantage of Caller ID.
- **Optional *VIP* or *VIP Professional*** — ESI's optional *VIP* and *VIP Professional* PC software takes the power of *Microsoft Outlook* and adds missing critical application: telephone and voice mail control.
- **Text-messaging** — *VIP Professional* users converse unobtrusively with ESI's secure, private messaging system, which is free from viruses common with other types of this popular form of communication.
- ***VIP PC Attendant Console*** — Handling a heavy call load is no problem for even the busiest office when the color-coded, icon- and menu-driven screens of the optional *VIP PC Attendant Console* screens are at the attendant's command.
- **Auto-record**⁴ — (See "Voice mail features," page 3).
- **ESI Presence Management** — An optional hardware and software application that combines proven RFID⁵ technology with the power of IVX S-Class to deliver practical doorphone functions along with access control, presence indication, and (with optional *ESI TimeLine* PC software) time and attendance management.

¹ Not available on ESI Cordless Handset.

² Not available on 12-Key Feature Phone.

³ One conference bridge is available on the main board only. The second conference bridge is available with installation of one or more port cards (see "Port cards," page 6).

⁴ Requires installation of a *VIP Professional*-compatible application for users wishing to utilize this feature.

⁵ Radio Frequency Identification.

Voice mail features

- **Up to six built-in voice mail ports** — These are **in addition to** the up to 56 possible call-processing ports; thus, you may build the system to its maximum for call-handling without having to balance voice mail needs versus maximum station capacity.
- **Highest-grade voice quality** (64-kilobit/second sampling) for voice mail and other storage of voice messages. IVX S-Class offers two voice storage capacity choices: six hours and 30 hours.
- **Auto-record**¹ — Users of this optional license will never miss recording a call again. The voice mail system senses the user's connection with a CO line, and begins recording the call automatically.
- **Quick Groups**TM — Makes it easy to leave voice mail messages for several users.²
- **Quick Move**TM — Records a conversation into another user's mailbox.²
- **Virtual Mailbox Key**TM allows easy monitoring of any other mailbox.²
- **Different mailbox types**, including cascade, guest, and broadcast.²
- **Cascade notification** — Up to three phone numbers can be defined to receive notification of new messages in a cascade mailbox. These numbers can be for pagers or telephones, such as residential lines or cell phones.
- **Message-on-hold recordings** — Up to five recordings: three prerecorded, one customized, and one live entry.
- **Message Recycle Bin** (undelete) — Remembers, and can restore, each mailbox's 10³ most recently deleted messages.
- **Auto attendant** — Its eighteen branches let you and your customer set up a caller-friendly answering environment, including a company directory. The auto attendant also features virtually unlimited call routing, with pager or cell phone notification.

Cordless Handset

- **ESI Digital Cordless Handset** — This cordless handset is digitally integrated to any digital port card (Generation II) to provide user functionality similar to the 24-Key Feature Phone. Its base station is powered directly from the port card, and requires no external AC power. The ESI Digital Cordless Handset offers a two-line display, four programmable keys, and four fixed feature keys, and a built-in headset jack. It is shipped with a charger and charger power adapter. Available in two models, the small handset uses narrow-band frequencies to minimize RF interference, and the larger handset incorporates spread-spectrum technology for extended roam range.

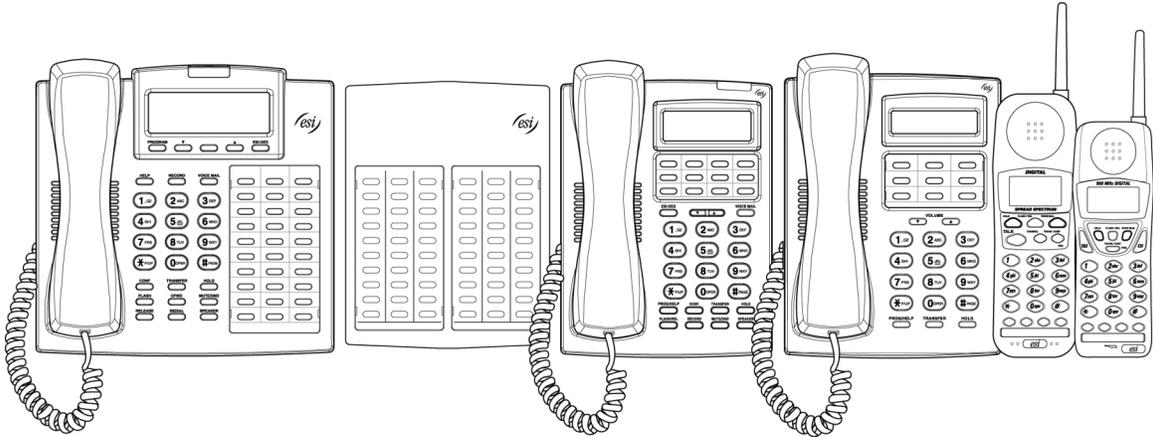
Note: For more complete details on ESI Digital Cordless Handsets, consult the *ESI Cordless Handset Product Overview* (ESI document #0450-0840). ESI-trained Resellers may download this document and any others mentioned herein from www.esiresellers.com (password required).

¹ Requires the installation of *VIP Professional* for users wishing to utilize this feature.

² Not available on 12-Key Feature Phone.

³ On the six-port/30-hour system. The four-port/six-hour system stores the five most recently deleted messages.

Phone models



IVX S-Class supports three different models of ESI desktop Feature Phones — 48-Key, 24-Key, and 12-Key — and two different models of ESI Cordless Handsets. The 48-Key Feature Phone and Cordless Handset models each include an **integrated headset jack**.

Model	Display		Speaker-phone	Programmable feature keys	Accepts 60-Key Expansion Console	Headset jack
	Lines	Chars.				
48-Key Digital Feature Phone	3	56 ¹	Yes	30	Yes	Yes
24-Key Digital Feature Phone	2	32	Yes	12	No	No ²
12-Key Digital Feature Phone	1	16	No	9	No	No
ESI Cordless Handset	2	32	No	4	No	Yes

Note: The 12-Key Feature Phone and ESI Cordless Handsets do not support Installer or Administrator programming.

Each model connects to the cabinet via standard two-wire twisted pair cable. The intelligent display and the extensive spoken prompts from ESI's Verbal User Guide deliver vital call-handling information and are readily understandable by even a novice ESI phone user. For added reliability, each ESI phone has a sealed membrane below the keys, making it virtually spill-proof. The sturdy base lets the user adjust each phone four different ways — from near-horizontal to near-vertical — to fit easily on any desk or counter space.

The highly popular 48-Key Feature Phone offers an integrated standard headset jack that accepts many popular models.³ Also, headset use on any ESI phone is now easier due to the simplification of the procedure for using a headset with the phone; *i.e.*, it's no longer necessary to program headset mode (on applicable desktop phones, just program a headset key; for a Cordless Handset, just plug in the headset and the audio is switched automatically).

For more information on ESI Feature Phones, visit www.esi-estech.com/phones.

Note: An IVX S-Class system can have up to four 60-Key Expansion Consoles.

Phone overlays

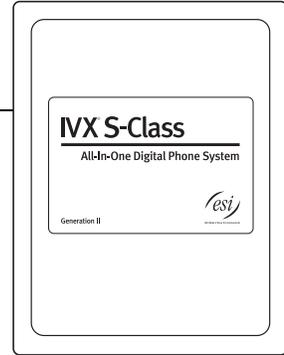
Each ESI Phone comes with one overlay for the programmable feature keys. To order additional overlays or to obtain assistance with DESI® products, visit the DESI Web site at www.desi.com. You can also download the free Windows-based software, *DESI Lite*, which allows you to print the overlays.

¹ The top two lines each have 16 characters, as on the 24-Key Digital Feature Phone; the bottom line has 24 characters.

² While the 24-Key Feature Phone lacks a dedicated headset jack, it is headset-capable.

³ See the *IVX S-Class Installation Manual* for a list of headset models ESI has tested with the jack.

Systems



System components

IVX S-Class cabinet components¹ consist of:

- **Base Cabinet²**
 - Main board
 - Memory Module
 - One port card slot
 - External wall-mounted transformer
- **Expansion Cabinet (optional)**
 - Two port card slots

Each system consists of a **Base Cabinet** and **Memory Module**. The Base Cabinet includes a slot for one **482 port card**. With an **Expansion Cabinet**, two additional 482 port cards can be installed for a total of three. See “System capacity” (*below*) for maximum system port capacities with various configurations.

System capacity

Configuration	CO lines	Digital stations	Analog ports
Main board only	4	8	2
With one 482 port card	8	16	4
With two 482 port cards	12	24	6
With three 482 port cards	16	32	8

Base Cabinet

The wall-mounted **Base Cabinet** measures 8¹/₂” W × 11” H × 3” D, and is designed for easy installation and easy component access. It houses the Memory Module and main board (with a 4 × 8 × 2 configuration), an RS-232C DB9 multi-purpose serial port, a MOH connector, and another port card slot — which accepts a 482 port card.³ The Base Cabinet can support one **Expansion Cabinet** for a potential total of three 482 port cards (see next item), and one 4 × 8 × 2 main board.

Expansion Cabinet

You can “piggy-back” an **Expansion Cabinet** to the front of the IVX S-Class Base Cabinet. The Expansion Cabinet adds two expansion slots, enabling the system to grow to its maximum configuration: main board plus three port cards.

Main board

The main board combines leading-edge hardware components — including a Motorola® ColdFire® processor and Texas Instruments® DSP structure — along with proprietary operating system software. The board provides: system control of the Memory Module and port cards; a standard RS-232C DB9 serial port; a built-in modem for remote access; an external paging-device interface; and MOH interface. The IVX S-Class main board has a four-line, eight-digital station, two-analog port configuration. On IVX S-Class Base Cabinets that include the Network Services Processor (NSP), the NSP is pre-installed on the main board.

¹ The Memory Module and port cards are packaged separately and are mounted in the cabinet during installation.

² IVX S-Class Base Cabinets are available either with built-in NSP or a non-NSP configuration. The non-NSP Base Cabinet cannot be field-upgraded to include an NSP.

³ See “Port card,” page 6.

Memory Module

The **Memory Module** is a CompactFlash® card that contains all system programming and configuration data, including pre-loaded voice prompts. The Memory Module provides voice storage at 64 kilobits/second — the industry's highest-quality sampling rate. Its voice storage capacity depends on the system's voice messaging configuration:

- **Four-port voice mail** — Provides six hours of voice storage.
 - **Six-port voice mail** — Provides 30 hours of voice storage.
-

Port card

There is only one port card type available for S-Class. The **482 port card** is equipped with a standard female Amphenol connector for easy wiring to a standard 66 or 110 block.

Note: The IVX S-Class Generation II 482 port card cannot be used on any other ESI phone system.

The 482 port card provides circuits to connect up to four loop-start CO lines, eight Digital Feature Phones, and two analog station ports. The CO line ports support standard CO and Centrex loop-start lines; ground-start CO lines are not supported. The analog ports provide a standard 24-volt, two-wire connection to fax machines, analog phones, and modems. Only one analog device can be connected to each analog station port. This card uses ten station ports and four CO ports when installed.

Note: The system must contain at least one 482 port card to access both conference bridges.

Connections

CO line connection

The IVX S-Class system's advanced CO line circuitry provides for open loop detection and the system's built-in Caller ID interface. The **total** line capacity is 16 phone lines.

Station connection

Each port card Amphenol connects to station ports. All stations are connected using a single pair. Each port position is pre-numbered and fixed. Digital Feature Phone station runs can be up to 1,000 feet.

External paging device connection

A dry contact overhead-paging device can be connected to the system through the first port card's 66 block.

System programming

The installer can program the system locally or remotely, through either a phone or one of ESI's *Windows*®-based applications — *Esi-Access* for you and *Esi-Admin* for the Administrator. Either application runs on a PC-compatible computer that is connected to the system: (a.) from another location, via the built-in modem; (b.) across the LAN/WAN via the Network Services Processor (see page 6); or (c.) via a physical link to the system's RS-232C serial port.

Network Services Processor

The optional **Network Services Processor (NSP)** interface consists of a dedicated Motorola® ColdFire® processor and Ethernet® port. The RJ-45 jack provides a 10/100Base-T connection to a site's LAN.¹ The IVX S-Class NSP can be upgraded to support multiple *VIP*² users and *ESI TimeLine* time and attendance management software. IVX S-Class is available in two models: with, and without, built-in NSP. An IVX S-Class system purchased without the NSP cannot be field-upgraded to include this component; therefore, if having an NSP-dependent application (such as *VIP*) should become necessary to the customer, the IVX S-Class Base Cabinet must be replaced.

¹ Local area network.

² *VIP*, *VIP Professional*, and *VIP PC Attendant Console*.

PC-based options

VIP

With ESI's **VIP** (*Visually Integrated Phone*), the user can control his ESI 48-Key Feature Phone from his PC, as well as enjoy the power of unified messaging — including the ability to save voice messages as .WAV files when desired. *VIP* lets you view your voice and e-mail messages in one inbox, prioritize each message by importance, and select for playback any voice mail messages in any order. The integrated *VIP* toolbar allows for synchronized control between your *Outlook*[®] inbox and your ESI voice mailbox. *VIP* is offered in two user configurations: the basic *VIP* and *VIP Professional*. Each configuration is licensed independently. With the basic *VIP* license, the user can:

- Manage e-mail and voice mail from one unified location: the *Outlook* Inbox.
- Organize all contacts for easy dialing, e-mailing, and editing in the Quick Contact List.
- Control all phone functions from the desktop PC.
- Capture records of all inbound and outgoing call activity.
- Program station options and phone layout for the associated 48-Key Feature Phone.

VIP Professional adds even greater productivity tools to enhance everyday communications:

- Enhanced graphical user interface (GUI) increases the intuitiveness of *VIP* functions.
- Text-messaging provides immediate, non-intrusive intra-office communications.¹
- Auto-record enhances the ESI system's standard call-recording feature.²

VIP is easy to implement. It connects to your existing LAN and is non-invasive. There is no need to upgrade the network or install *Microsoft Exchange*[®] — thus avoiding a costly and impractical solution for the small to mid-size business. (*VIP* requires *Microsoft Outlook 2000, 2002, or 2003*). Each IVX S-Class Generation II system with a built-in NSP (see page 6) is immediately *VIP*-ready.

Note: To learn more about *VIP*, consult its *Product Overview* (ESI document #0450-0608).

VIP PC Attendant Console

VIP PC Attendant Console is designed to serve the specific needs of busy attendants. The demands of a high-traffic environment are efficiently met by combining the power of the ESI phone system and *Microsoft Outlook*. This foundation provides attendants with a comprehensive set of productivity tools, including one-click call handling, unified messaging, contact and call management, and text-messaging.

The **Call Display** view mirrors the information presented on the 48-Key Feature Phone, including Caller ID name and number, elapsed time, date and time of day, and voice mail message count. The **Quick Contact List** consolidates all internal and external contacts into one scroll list. This list provides more than information to the attendant. In this field, the attendant can dial any entry in the list with a click of her mouse, send a text or e-mail message through a pre-populated pop-up window, and edit contact information through *Outlook*. Inbound calls are presented and viewed in the **Incoming Calls** field, permitting the attendant to prioritize answering. In peak incoming call conditions, the attendant can move calls into the Attendant Queue, where the caller is greeted by a custom message, and waits until the attendant answers. The **Holding Calls** field provides the attendant with a visual image of all calls that are holding throughout the system. Color-coded text provides information on the amount of time each call has been on hold. A “bell” icon is displayed as a visual indication of a recalling held call, prompting the attendant to remove the call from hold for further processing.

The attendant enjoys the added convenience of the **Virtual Button Window**, which provides as many as 200 programmable buttons for stations, mailboxes, departments, and speed dial entries. A call can be transferred by dragging it directly onto a programmed button. Buttons can be sorted by alphabetic label names, color, or department affiliation. Folders are automatically created in the *Outlook* menu tree in which the attendant can organize stations, mailboxes, or departments for easy one-click access to a specific individual or group.

Note: To learn more about *VIP PC Attendant Console*, consult its *Product Overview* (ESI document #0450-0914).

¹ ESI's text-messaging feature is available between users of both *VIP Professional* and *VIP PC Attendant Console*.

² Licensing required.

ESI Presence Management

ESI Presence Management is a hardware and software solution incorporating an innovative combination of RF scanning technology and ESI's award-winning telephone systems. This application can be configured as a simple doorphone with remote entry capabilities from any ESI Feature Phone, and can also deliver an affordable solution for:

- Controlled access of entries or secured areas within the customer's facilities.
- Presence indication, showing the on- or off-premises status for each employee on programmed station DSS keys by tracking of scanning activity on the ESI RFID¹ Readers.
- Personal call routing to modify the ESI phone's behaviors according to the user's wishes as the user scans in or out of the building.

With the optional *ESI TimeLine* software application² installed on a PC in the customer's location, all scanning activity is tracked. This information can easily be imported into common payroll software applications, such as *QuickBooks* and services available from ADP. This greatly reduces the time spent on payroll preparation, and eliminates employee confusion and controversy over hours worked during each pay period.

Note: To learn more about ESI Presence Management, consult its *Product Overview* (ESI document #0450-0794).

Note: For more complete details on IVX S-Class, consult the *Installation Manual* (ESI document #0450-0457), on which this document is based. ESI-trained Resellers may download this document and any others mentioned herein from www.esiresellers.com (password required).

About ESI

ESI (Estech Systems, Inc.) is a privately held corporation based in Plano, Texas.

Founded in 1987, ESI specializes in telephone systems for the small to mid-size business. Since its days as a small start-up, ESI has enjoyed exceptional stability and growth while maintaining its dedication to small company values — including the need to take care of the most important part of the equation: your business.

ESI pioneered the all-in-one telephone and voice mail system. The original IVX, introduced in 1996, represented a radical breakthrough in system design: the inclusion of a full suite of features within a single integrated telephone design.

Committed to excellence, ESI is an ISO-9001:2000-certified company — assuring that quality is fundamental.



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¹ An abbreviation for *radio frequency identification*.

² Requires the Network Services Processor (NSP); see page 6.