Strata®

CIX™

Voice Processing Systems

GVPH and LVMU1A
Stratagy IVP8 R2, iES16,
ES48, and ES96R2

General Description

Stratagy
General End User Information

The Stratagy Enterprise Server System is registered in accordance with the provisions of Part 68 of the Federal Communications Commission's Rules and Regulations.

FCC Requirements

Means of Connection: The Federal Communications Commission (FCC) has established rules which permit the Stratagy Enterprise Server system to be connected directly to the telephone network. Connection points are provided by the telephone company—connections for this type of customer-provided equipment will not be provided on coin lines. Connections to party lines are subject to state tariffs.

Incidence of Harm: If the system is malfunctioning, it may also be disrupting the telephone network. The system should be disconnected until the problem can be determined and repaired. If this is not done, the telephone company may temporarily disconnect service. If possible, they will notify you in advance, but, if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Service or Repair: For service or repair, contact your local Toshiba telecommunications distributor. To obtain the nearest Toshiba telecommunications distributor in your area, log onto www.toshiba.com/taistsd/pages/support_dealerlocator.html or call (800) 222-5805 and ask for a Toshiba Telecom Dealer.

Telephone Network Compatibility: The telephone company may make changes in its facilities, equipment, operations, and procedures. If such changes affect the compatibility or use of the Stratagy Enterprise Server system, the telephone company will notify you in advance to give you an opportunity to maintain uninterrupted service.

Notification of Telephone Company: Before connecting a Stratagy Enterprise Server system to the telephone network, the telephone company may request the following:

- Your telephone number.
- FCC registration number:
  Stratagy IVP8 R2, Stratagy iES16, Stratagy ES48, ES96R2, Media Application Server: Tested to comply with FCC standards

Ringer equivalence number:
Stratagy IVP8: 0.6B.
D4PCIUF/S, D/41JCT-LS: 1.0B
D/120JCT-LS: 1.3B
The ringer equivalence number (REN) is useful to determine the quantity of devices which you may connect to your telephone line and still have all of those devices ring when your number is called. In most areas, but not all, the sum of the RENs of all devices connected to one line should not exceed five (5.0B). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to ascertain the maximum REN for your calling area.

- **Network connection information USOC jack required:** RJ11C or RJ14C

Radio Frequency Interference

Warning: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the manufacturer's instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case, the user, at his/her own expense, will be required to take whatever measures may be required to correct the interference.

These systems are listed with Underwriters Laboratory.

Stratagy Enterprise Server E199948

E178305

Stratagy ES48 = 1950;
Stratagy ES96R2 = E180881.

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Toshiba America Information Systems, Inc.
Telecommunication Systems Division

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Customer will, at its sole cost and expense, provide the necessary Uninterruptible Power Supply (UPS) equipment as specified by TAIS in the *Stratagy Voice Processing Systems General Description* for use with the Stratagy ES system at all times. System failures and/or damages resulting from either not using a UPS with the Stratagy ES or the use of a UPS not equivalent to that specified by TAIS are not covered by this warranty.

The sole obligation of TAIS or Toshiba Corporation under this warranty, or under any other legal obligation with respect to the equipment, is the repair or replacement by TAIS or its authorized dealer of such defective or missing parts as are causing the malfunction with new or refurbished parts (at their option). If TAIS or one of its authorized dealers does not replace or repair such parts, the retail customer's sole remedy will be a refund of the price charged by TAIS to its dealers for such parts as are proven to be defective, and which are returned to TAIS through one of its authorized dealers within the warranty period and no later than thirty (30) days after such malfunction, whichever first occurs.

Under no circumstances will the retail customer or any user or dealer or other person be entitled to any direct, special, indirect, consequential, or exemplary damages, for breach of contract, tort, or otherwise. Under no circumstances will any such person be entitled to any sum greater than the purchase price paid for the item of equipment that is malfunctioning.

To obtain service under this warranty, the retail customer must bring the malfunction of the machine to the attention of one of TAIS' authorized dealers within the twenty-four (24) month period and no later than thirty (30) days after such malfunction, whichever first occurs. Failure to bring the malfunction to the attention of an authorized TAIS dealer within the prescribed time results in the customer being not entitled to warranty service.

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A valuable element of Toshiba's product strategy is to offer our customers a complete product portfolio. To provide this value to our customers at the most optimal prices, we offer both Toshiba-branded and third-party manufactured products that support our Toshiba Strata CIX product portfolio. Similar to other resellers of software, hardware and peripherals, these third-party manufactured products carry warranties independent of our Toshiba limited warranty provided with our Toshiba-branded products. Customers should note that third-party manufacturer warranties vary from product to product and are covered by the warranties provided through the original manufacturer and passed on intact to the purchaser by Toshiba. Customers should consult their product documentation for third-party warranty information specific to third-party products. More information may also be available in some cases from the manufacturer's public website.

While Toshiba offers a wide selection of software, hardware and peripheral products, we do not specifically test or guarantee that the third-party products we offer work under every configuration with any or all of the various models of the Toshiba Strata CIX. Toshiba does not endorse, warrant nor assume any liability in connection with such third party products or services. If you have questions about compatibility, we recommend and encourage you to contact the third-party software, hardware and peripheral product manufacturer directly.

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Chapter 3 – Stratagy ES Feature Groups

Chapter 4 – Specifications

Introduction

This general description is an overview of the Stratagy® Voice Processing systems and provides general information describing each system. Unless noted otherwise in this book, references to the Stratagy apply to all Stratagy product models.

Organization

This book is divided into the following major topics:

- **Chapter 1 – Overview** describes system capabilities, platform technology and features.
- **Chapter 2 – Features** gives a brief description of all Stratagy features.
- **Chapter 3 – Stratagy ES Feature Groups** gives a brief description of the Stratagy ES feature groups—Fax, Unified Messaging (UM), Text-to-speech (TTS), Automated Speech Recognition (ASR) and Interactive Voice Response (IVR).
- **Chapter 4 – Specifications** provides details of the physical and functional characteristics of the Stratagy system equipment.
- **Index**

Conventions

Conventions	Description
Note	Elaborates specific items or references other information. Within some tables, general notes apply to the entire table and numbered notes apply to specific items.
Important!	*Calls attention to important instructions or information.*
Tilde (~)	Means "through." Example: 350~640 Hz frequency range.
See Figure 10	Grey words within the printed text denote cross-references. In the electronic version of this document (Library CD-ROM or FYI Internet download), cross-references appear in blue hypertext.

Related Documents/Media

Note Some documents listed here may appear in different versions on FYI or in print. To find the most current version, check the version/date in the Publication Information on the back of the document's title page.

GVPH

- Strata CIX & MAS Installation and Maintenance Manual
- Strata CIX40 Installation and Maintenance Manual

LVMU1A

- Strata CIX & MAS Installation and Maintenance Manual
- LVMU Installation and Programming Guide

Stratagy IVP8 R2

- Stratagy User Guide
- Stratagy Quick Reference Guide
- Stratagy Installation & Maintenance Manual
- Stratagy System Administrator Guide

Note For information on the Stratagy Integrated Voice Mail System for Strata CIX40, see the *Strata CIX General Description.*

Stratagy ES

- Stratagy ES User Guide
- Stratagy ES Quick Reference Guide
- Stratagy Enterprise Server (ES) Installation & Maintenance Manual
- Stratagy ES System Administrator Guide
- Stratagy ES Installation Guide – An installation guide expressly written for each model (Stratagy iES16, ES48, and ES96R2) is included in the Stratagy ES container.

Note For information on the Stratagy ES Voice Processing for Strata CIX Media Application Server (MAS), see the *Strata CIX General Description*.

For *authorized users*, Internet site FYI (http://fyi.tsd.toshiba.com) contains all current Stratagy ES documentation and enables you to view, print, and download current publications.

Overview

1

This chapter describes the main components of Stratagy and provides general descriptions of each of the Stratagy systems. Unless noted otherwise in this book, references to Stratagy apply to all products listed in Table 1 on page 2.

Stratagy voice processing systems are tailor-made for small- to medium-sized businesses. Designed to be flexible and easy to use, Stratagy offers a full range of features.

Stratagy systems vary depending upon the voice processing requirements of your business. From standard voice mail to Unified Messaging, from an integrated circuit card to a rack mountable network server, there is a Stratagy for your business.

Stratagy is designed to be the voice processing system of choice for Toshiba's Strata CIX family of IP and digital business telephone systems, but will also easily integrate with most other brands of telephone systems.

All Stratagy systems provide basic applications such as Automated Attendant (AA) to answer incoming calls, Call Routing to direct calls, Telephone Answering to take messages when an individual is unavailable or busy, and Voice Messaging to create, send, receive, forward, and save voice messages.

Stratagy is available on a variety of platforms:

- Stratagy IVP8 R2 is deployed on a circuit card, designed to be installed in a Strata CIX card slot.
- Stratagy Enterprise Server (ES)
  - Integrated Enterprise Server (iES16) is deployed on a circuit card and designed exclusively to install in a card slot of the Strata CIX.
  - ES48, and ES96R2 are available as computer platforms ranging in size from an eight-port desktop to a 96-port capacity rack-mountable chassis.
  - Stratagy IVP8 R2 shares many of the same features and capabilities of the Stratagy ES product family. However, Stratagy ES software capable of more advanced features and functionality.

Other Strata CIX Voice Processing Solutions

For information on the Voice Processing Solutions for the Strata CIX Media Application Server (MAS), including MicroMAS, please see the *Strata CIX General Description*.

Stratagy ES software in the Strata CIX MAS shares all of the telephone user interfaces, CIX soft keys, and Unified Messaging functions (except fax) as the Stratagy ES products described in this General Description.

All service, including installation and maintenance, is performed by a Toshiba authorized dealer.

Table 1 presents an overview of the various Stratagy models, their individual attributes, as well as a recommendation for which Stratagy best complements a specific Strata CIX.

Table 1   Stratagy Models and Key Feature Comparison

Stratagy		GVPH	LVMU1A	IVP8 R2	iES16	ES48	ES96R2
Ports	Minimum	4	2	2	4	4	4
	Maximum	4	8	8	16	48	96
Port Upgrade Option			CIX License	Electronic Delivery Method		Dialogic Voice Board Hardware	
Message Storage (approx. hours)		40	40	15[1]	100	2000	2000
Storage Media		NAND / NOR chips	NAND / NOR chips	Flash	Flash	HD	HD
Modem (Remote Maintenance)		S	S	S	S	S	S
CD-ROM R/W drive						S	S
CIX Integration	Call Record	S	S	S	S	S	S
	Voice Mail Softkeys	S	S		S	S	S
Network Interface					S	S	S
Stratagy ES Feature Groups							
Unified Messaging (UM) + 5 seats					S	S	S
Text-to-Speech (TTS)/EMail					O[2]	O	O
Automatic Speech Recognition (ASR) Automated Attendant (AA)					(future release)	O	O
Fax (Fax Mail, etc.)					O	O	O
Recommended for use with		CIX40 only	Strata CIX100				
			Strata CIX200 and 670				

Legend

S = Standard
O = Optional
Blank = Not Available

[1]   Additional message storage available via optional CompactFlash® memory card.

[2]   Must be Stratagy ES Release 4 software or higher.

[3]   Though Stratagy ES with 4.6 software can be installed on a Strata CIX, it will not support Media Application Server (Rel. 5) features (i.e., FeatureFlex, My Phone Manager, or eManager).

Note This chart serves as a quick reference for Stratagy ES models and key feature comparisons. For detailed information, refer to the appropriate Stratagy ES model and feature description in this manual, as some capacities may be reduced by other feature selections.

GVPH – Integrated Voice Mail

System Availability: Strata CIX40

With the release of Strata CIX40, Toshiba offers a plug and play voice mail circuit card, the GVPH1A (shown right) specifically for the Strata CIX40 cabinet. It plugs into a dedicated cabinet slot and requires no additional hardware to provide its full set of features.

The CIX40 is pre-programmed to match all related voice mail programming in the GVPH Voice Mail system. This includes station numbers, mailboxes, voice mail hunt groups, voice mail station IDs and many other items which are listed in the CIX40 installation documentation. The pre-programmed data is set when the processor is initialized even if the expansion cards or GVPH1A Voice Mail system is not installed prior to system initialization.

It provides comprehensive Auto Attendant/Voice Mail capabilities, including the following:

• 4-Voice Ports.

• 40 hours voice storage or up to 10,000 total messages.

• 360 mailboxes.

• Voice Mail Call Monitor – answering machine like operation to monitor and optionally pick-up a call when someone is leaving a voice message.

• Voice Mail LCD Feature Prompting with Soft Key Operation (English and Spanish).

• Call Record – enables the user to record live calls.

• Installs in a dedicated CIX40 cabinet slot with SMDI integration built-in on backplane – no serial port or other interface hardware is needed for interface or for its full set of features.

• Built-in remote maintenance modem.

• Administration requires the GVPH UADMIN2 Administration Software.

   This is a new version of Stratagy UADMIN2 exclusively for the GVPH1A.

   It also includes a new software version program update and prompt update capability for remote maintenance.

• The Backup and Restore function stores Names, Greetings, Mail box numbers, and all other database parameters. It does not back up/restore user messages.

• Pre-programmed with default mail boxes that match CIX40 default stations numbers, adding simplicity to any installation.

To program additional features beyond the default settings, refer to *Strata CIX40 Voice Processing Programming Manual* and UADMIN2 software.

LVMU1A Voice Mail Card

System Availability: CIX100, CIX200 and CIX670 (Version 4.2 or higher)

The LVMU1A (shown right) is an integrated voice mail circuit card that installs in a slot (except a processor slot) of the Strata CIX100, CIX200 or CIX670 system. The LVMU1A has a 40 hour storage capacity and a maximum capacity of 8 ports.

Features

The LVMU1A's features include:

- 2, 4, 6 or 8 port capacity with simplified licensing via eManager
- 40 hours of voice storage
- 360 mailboxes
- Call Monitor – Allows users to monitor callers leaving messages in their voice mailbox, with the option to retrieve the caller for a live conversation.
- Call Record – Gives users the ability to record live conversations from their Toshiba DKT or IP telephones which are subsequently saved as voice messages.
- LCD Soft Key Control – User control of voice mailbox prompting with the aid of soft keys on their Toshiba LCD telephone screen.
- On board remote access modem
- Bilingual Support (English / Spanish)

The LVMU1A has direct backplane communication with the host system. It does not require any additional hardware, such as a BSIS. Caller information is presented directly from the CIX processor, so incoming calls are answered smoothly and efficiently, presenting a seamless voice mail experience.

The LVMU1A is easy to install. It comes pre-configured for installation into the Strata CIX100. This includes telephone system configurations as well as pre-programmed number of user mailboxes.

Also, since the LVMU1A is powered by the Strata CIX; in case of power outages, it can take advantage of battery backup protection from the CIX.

Licenses

The Strata CIX software that supports the LVMU1A comes equipped with two port licenses for the LVMU.

Additional port licenses are available in two port increments for the CIX. These port licenses are licensed in the CIX and not the LVMU.

After installing the LVMU1A, dealers need only apply additional voice mail port licenses to increase the LVMU1A's capacity to the desired number of ports. All licensing is applied via our eManager administration terminal, while voice mail programming continues to be managed by the Stratagy UAdmin software.

Software

The software requirements for the LVMU1A are:

- Strata CIX Software R4.2 – MP026 or higher
- eManager Version 4.20A09 or higher
- UAdmin Version 2.1

Port Upgrades

Each Strata CIX Release 4.2 processor is equipped with two LVMU port licenses. Additional voice mail ports require FYI licensing. Upgrading the number of voice ports on the LVMU1A is as easy as upgrading the CIX processor (R4.2 MP026 or higher is required). Upgrade licenses are purchased via normal processes and then activated through FYI Licensing. The activation code is applied to the Strata CIX Processor via eManager. The license is stored on the CIX processor rather than the LVMU1A.

Stratagy IVP8 R2

The Stratagy IVP8 R2 is an integrated voice processing solution designed to be installed in a base/expansion cabinet card slot of a Strata CIX or Strata DK280 / DK424 telephone system.

The Stratagy IVP8 R2's circuit card architecture (shown right) is a Toshiba proprietary design utilizing state-of-the-art embedded processing capabilities. The card has flash memory and two RS-232 ports (operating at speeds ranging from 1200 to 9600 bps) for local or remote interface with a PC.

The IVP8 R2 is a Strata-compatible circuit card for small- to medium-sized businesses that supports up to eight ports and provides approximately 15 hours of storage. A 512MB CompactFlash card upgrade is available from Toshiba that provides approximately 30 hours of voice storage.

The flash memory has very high-data integrity with automatic bad-spot management and sparing, and full Error Correction Coding (ECC) for high reliability. The flash memory data storage device contains no moving parts, is fast, noiseless and light. It operates in the IVP8 R2 like an industry standard Integrated Drive Electronics (IDE) hard disk drive. However, unlike disk drives, flash memory speed does not decrease with increasing amounts of data stored; nor does disk storage fragmentation occur.

Because it is installed directly in the telephone system, the IVP8 R2 has the ability to monitor the status of extensions for busy/idle status, and a DSS/BLF console's Night Transfer key for alternate incoming call routing applications. The IVP8 R2 can also be synchronized with the Strata CIX/ Strata DK280 / DK424 KSU (KSU time) or run on its own system clock. The IVP8 R2's system clock can automatically make Daylight Savings Time adjustments.

Upgrading the IVP8 R2 to additional ports does not require any hardware. The upgrade is performed remotely by Toshiba.

Basic administrative functions (e.g., adding User IDs, resetting passwords) can be performed by the System Administrator using a touchtone telephone (see "System Administrator's Mailbox" on page 36 for details). For detailed administration interface and customer database storage, a separate IBM-compatible PC equipped with a keyboard and monitor is required. A prefabricated cable (SG-ADMCBL), designed expressly for Stratagy Admin communication, is available from Toshiba.

Important! *In order to maintain Stratagy system integrity, customer-supplied anti-virus software should be resident and active on any PC that is connected for any reason to Stratagy.*
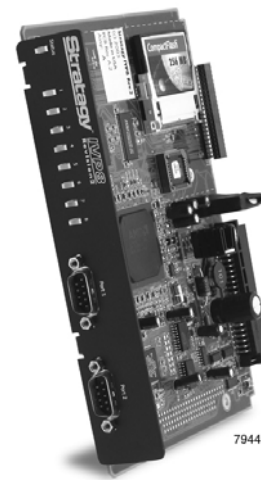
Stratagy IVP8 R2 System Software

Stratagy's flexibility is largely a result of its software. The following provides a brief overview of the Stratagy system software. Refer to the *Stratagy Installation and Maintenance Manual* for more details.

Operating System

Controls all real-time voice processing functions through the use of simple administrative menus, diagnostics, system activity, and collection and reporting of data.

Diagnostic Programs

Online diagnostic tests run continuously to detect and report errors in operation. The tests run in the background and do not interfere with normal system operation. Other diagnostic tests can be run upon demand, either from a directly-connected or remote terminal.

Stratagy Admin

A program called Stratagy Admin resides on a separate customer-supplied IBM-compatible PC. The Admin software is composed of the administrative and configuration menus for the system. Operating software, greetings, and messages (database) are stored in the IVP8 R2 flash memory.

Note   In order to maintain Stratagy system integrity, customer-supplied anti-virus software should be resident and active on any PC that is connected for any reason to the Stratagy system (e.g., system administration via Stratagy Admin).

Automatic System Recovery

An Archive directory, consisting of three subdirectories (i.e., Original, Good, and Suspect), is part of the Stratagy system. Each subdirectory contains a version of the Stratagy batch files, configuration files and voice mailbox database.

If an unsuccessful startup is detected by the program, Stratagy copies the files in question to the Suspect subdirectory, shuts down and reboots using the files in the Good subdirectory. The Suspect files can be used to debug configuration problems.

Disk Full Prevention

Starting with Stratagy Release 3.2 software, Stratagy reserves a small portion of the available disk space to ensure a successful system start up. When the storage reaches the reserved limit, Stratagy goes into protection mode. In protection mode, Stratagy:

- Advises callers that it is unable to take a message.
- Deactivates the system trace and message log files, if they are running at the time.

Once there is available disk space, Stratagy resumes recording. However, since disk space may still be marginal, the system trace and message log files will not resume until the next system start up.

This feature is intended to work in conjunction with the Disk Space Notification feature that automatically notifies the System Administrator whenever the available system disk space falls below a defined threshold.

Stratagy Enterprise Server (ES)

The Stratagy ES is a powerful hardware/software platform that consists of five models—Stratagy iES16, ES48, and ES96R2—designed for medium to enterprise-sized businesses.

Note Unless otherwise specified in this book, all references to Stratagy ES include the Stratagy iES16.

The iES16 is an integrated circuit cards that run on a Microsoft® Windows Embedded operating software. The Stratagy ES48 run on Microsoft Windows 2000 Professional, and the Stratagy ES96R2 runs on the Microsoft Windows 2000 Server operating system.

Stratagy ES products ship with Unified Messaging and 5 UM seats.

Stratagy iES16

Stratagy iES16 (shown at right) supports 4~16 ports and exclusively installs in Strata CIX Base or Expansion Cabinet card slots. The iES16 is configured in increments of four ports (i.e., 4, 8, 12, 16).

The card consists of a motherboard with an Intel® Pentium® II processor and a daughterboard that supports up to 16-ports and flash memory with a storage capacity of approx. 100 hours. Additional ports and Feature Groups are added remotely as electronic upgrades by Toshiba.

The control panel on the motherboard has eight LEDs, two switches (i.e., Shutdown, Power), a 10/100BaseT Ethernet connection, and a serial port.

Each iES16 has been pre-programmed at the factory for out-of-box (plug-and-play) operation on the Strata CIX. This includes the KSU integration and configuration parameters, default station (extension number) mailboxes, and company greeting and instructions.

The iES16 requires Stratagy ES Administration software to be installed on a separate Windows® XP/2000/ME/98 or Windows NT computer for remote administration over a network.

An internal (soft) modem that operates at up to 36.6Kbps can be used for communication with any of the 16 voice ports.

The iES16 shares the same basic features and functions of the Stratagy ES product family, as well as a number of advance applications such as Fax and Unified Messaging (UM). The Automatic Speech Recognition Automated Attendant is not supported on the iES16 or 32.

The Automatic Speech Recognition Automated Attendant is not supported on the iES16.

Stratagy ES48, and ES96R2

Stratagy ES standalone platforms are labeled to indicate their maximum voice port capacity. They are Stratagy ES48, and ES96R2, with the ES96R2 being a rack-mountable system. Each platform is designed for incremental expansion that accept one or more Dialogic PCI peripheral boards in which to support voice and fax applications.

The ES48 is pre-configured with 4 PCI slots and supports from 4~48 voice ports. The ES96R2 is equipped with 8 PCI slots and provides up to 96 ports.

All Stratagy ES48 and ES96R2 standalone systems are equipped with IDE hard drives that can offer a voice storage capacity of 2000 hours. Available voice and/or data application storage is dependent upon hard drive size, installed software to support some Feature Groups (e.g., Fax, ASR) and the mailbox database.

Storage capacities are not software blocked. Therefore, in the future if a larger drive is employed, voice storage capacity will be increased proportionally.

Stratagy ES48

ES48 (shown right) is a mid-size tower recommended for medium-sized businesses and comes equipped with an Intel Celeron processor located on a motherboard. It has four full length dedicated PCI slots, and one dedicated full-length ISA slot for processing equipment.

ES48 supports three types of Dialogic PCI-based voice boards, the D/4PCIU (SYS-D4PCIUF), D/41JCT-LS (SES-D41JCT-LS) and the D/120JCT-LS (SES-D120JCT-LS). These three boards provide four or 12 ports for a maximum voice port capacity of 48 ports for this system.

Stratagy ES96R2

ES96R2 is a server with a rack-mountable chassis, and passive backplane architecture. It has 11 PCI slots (8 usable) and 1 shared ISA/PCI slot for processing equipment.

Stratagy ES48, ES96R2 Standard Components

The Stratagy ES's base components are shown in Table 2.

Table 2   Stratagy ES Base System Components

ES48[1]	ES96R2[1,2]
Motherboard with Intel 2GB Celeron processor.	Passive backplane architecture with a CPU located on a PCI-based SBC with an Intel Pentium 4 2GB processor
4 PCI slots	11 PCI slots (8 usable)
1 ISA[2] slot for processing equipment	1 shared PCI/ISA for processing equipment
Standard Components	

• IDE 40GB hard drive for a maximum voice storage of 2000 hours.
 	
Note This value is subject to database, application and Feature Group storage requirements.
	• CIX Proprietary Integration equipment:
	
	  • Two 14-foot LAN cables – one cable is configured for a direct connection between the Stratagy ES and the Strata CIX (peer to peer), one cable is wired for a connection between the Stratagy ES and a network hub.
	  • One 15-foot six conductor modular phone cable
	  • One RJ14 to DB9 serial port connector

• ES48, ES96R2: 512MB R(AM	• PS/2 Keyboard and mouse
• 3.5" 1.44 MB floppy disk drive	• 56Kbps v.90 Internal Modem
• 4~48 voice ports (ES48) • 4~96 voice ports (ES96R2)	• One parallel port
• CD-ROM drive with read/write capabilities	• Two serial ports
• SVGA video controller	• 10/100BaseT Ethernet NIC
1. A Toshiba Stratagy ES-approved UPS is required on all Stratagy ES systems. All units come equipped with a SAM; iES16 and 32 have a software-based SAM. 2. ISA slots accept Dialogic resource boards. Some PCI slots are used for other peripheral devices, e.g., NIC.	

Voice and Resource Boards

One or more voice boards are used in the standalone Stratagy ES platforms to convert, compress and store analog voice signals. These boards also provide telephone functions, including generating and recognizing in-band telephone signals. The Public Switched Telephone Network (PSTN) or telephone system must be physically connected to each voice board via RJ11C or RJ14C connectors.

A D/41JCT-LS or D/120JCT-LS board is required in order to implement the Fax, and ASR/AA Feature Groups. If only the standard voicemail is required, the lower cost D4PCIU card can be used.

SoftFax

With Stratagy ES Release 4.6 software and higher, the D/41JCT-LS and D/120JCT-LS boards provide the resources necessary for fax applications. No other fax board is required. Both boards provide four fax channels. On the D/120JCT-LS board the first two fax channels support the first eight voice ports. The second two channels support the last four voice ports.

Important! *The D/120JCT-LS board is manufactured to not support both fax and Automatic Speech Recognition (ASR). Only one or the other Feature Group is supported. The D/41JCT-LS can support both applications.*

Optional Equipment

Optional equipment can be ordered with the system and is boxed separately. The following equipment is optional and can be included in the initial configuration or added as an upgrade.

High-resolution Color Monitor

Voice Boards

The following is a list of voice and resource boards supported by Stratagy ES. Each board is identified by its Dialogic title followed by its associated Toshiba part number.

- 4 ports – D/41JCT-LS™ (SES-D/41JCT-LS) or (SYS-D4PCIUF)
- 12 ports – D/120JCT-LS™ (SES-D/120JCT-LS)

  Important!

  - The D/41JCT-LS and D/120JCT-LS are PCI boards and therefore not supported in the legacy Stratagy ES4, ES80, ES96 or ES96R ISA systems.

Optional System Support Components

- 40GB Travan™ tape drive – (SYS-TAPEDRIVE-2 for Stratagy ES48, SYS-TAPEDRIVE-3 for Stratagy ES96R2)
- ONEAC™ Model 2 (or equivalent), 400VAC, 1/2 hour UPS with Power Conditioner and Ground Bar with serial cable. Required for all Stratagy ES systems. (See for specifications.)

Note A Toshiba Stratagy ES-approved Uninterruptible Power Supply (UPS) is required on all Stratagy ES systems.

Stratagy ES System Software

All Stratagy ES systems, including the iES16, run Stratagy ES software designed exclusively by Toshiba. All processing functions are controlled through the use of Windows-based menus and icons that provide administration, configuration, diagnostics, system monitoring, and reporting functions.

Diagnostic Programs

On-line diagnostic tests for Windows and Stratagy ES run continuously to detect and report errors in operation. The tests run in the background and do not interfere with normal system operation. Other diagnostic tests can be run upon demand, either locally or from a remote computer.

Stratagy ES Administration Software

The Stratagy ES Administration software program is preloaded on every system and is composed of the administrative and configuration menus for the system. Operating software, voice prompts, and database access utilities are all stored on the Stratagy ES's hard drive.

The Stratagy ES Administration program uses a Graphical User Interface (GUI) and is composed of the Configuration Properties Menu (shown right) and other administrative menus for the system.

The Configuration Properties drop-down menu consists of 11 menu options—Telephone System Integration, Answer Methods, Voice Ports, Serial Ports, Notification Port Groups, Statistical Port Groups, IVR Hosts, Holidays, Scheduler, Language, and System Parameters. These screens serve as the basis for configuring and programming the Stratagy ES basic operating procedures.

Stratagy ES Administration software can also be installed on a separate Windows XP/2000/ME/98 or Windows NT computer for remote administration over a network. Remote Access Service (RAS) capability enables administration via a modem connection.

Stratagy ES Administration enables an Installer or System Administrator to:

- Enable and disable configuration and mailbox features
- Define and configure features
- View status of voice ports
- Define and generate system reports
- Define telephone system integration
- Program user mailboxes

Refer to the *Stratagy Enterprise Server (ES) Installation and Maintenance Manual* for more details on administrative menus.
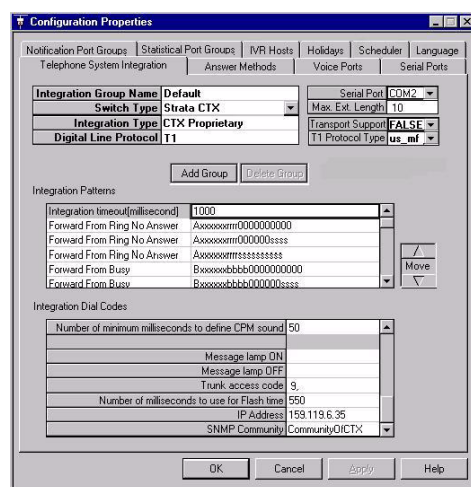
Configuration Wizard

The Configuration Wizard guides the Administrator through the Stratagy ES basic operation setup. It includes:

- Configure the System Database – specifies telephone systems, sets up voice lines and answering methods for Automated Attendant and designates holidays.

- Configure User Agents Database – creates Class of Service (COS) and user mailboxes.

The set of screens are user friendly and display automatically on the initial log in to the Stratagy ES Administration software. If the user chooses to bypass the screens at log in, he/she can always access the Configuration Wizard through the Configuration Menu.

pcANYWHERE

Note   Applies to ES48, and ES96R2.

Remote maintenance can be performed using the Symantec pcANYWHERE software. This software provides remote system support by Toshiba Authorized Dealer Technicians or Toshiba Technical Support Engineers.

Microsoft NetMeeting

Note   Applies to iES16 only.

Remote maintenance can be performed using the NetMeeting® software located on an IBM-compatible computer. This software replaces pcANYWHERE used on the desktop Stratagy ES systems.

Features

There are two types of features: standard features available to all Stratagy systems and Feature Groups that are special to the Stratagy ES product family.

Standard Features

These features are available to all Stratagy users. See Chapter 2 – Features for descriptions and benefits of each feature.

Stratagy ES Feature Groups

Feature Groups are separate optional features that provide specific capabilities such as Unified Messaging (UM), Fax, Text-To-Speech (TTS), Automatic Speech Recognition (ASR) Automated Attendant (AA) and Interactive Voice Response (IVR). See Chapter 3 – Stratagy ES Feature Groups for descriptions of each Feature Group.

Table 3 below displays the available feature group configurations for the Stratagy ES Feature Groups:

Note   All Stratagy ES systems come standard with Unified Messaging and 5 UM seats.

Table 3   Feature Group Configurations

Feature Group	iES16	ES48, ES96R2
Fax (Fax Mail, etc.)	✕	✕
Unified Messaging (UM)	✕	✕
Text-To-Speech (TTS)/EMail	✕	✕
Automatic Speech Recognition (ASR)/AA	NA	✕
Interactive Voice Response (IVR)	✕	✕

Feature/System Comparison Chart

The following table provides a list of the available Stratagy features. Supported features are denoted with an ✕ in the appropriate box, where an "NA" indicates those features that are not supported by the specific Stratagy system.

Table 4   Strata CIX Voice Processing Feature/System Comparison Chart

Stratagy Features	GVPH	LVMU1A	IVP8 R2	iES16	ES48, ES96R2
Audiotex	✕	✕	✕	✕	✕
Automated Attendant (AA)	✕	✕	✕	✕	✕
Automatic Message Copy with Optional Delete	✕	✕	✕	✕	✕
Automatic Message Copy with Start/Stop Time and Delay	NA	NA	NA	✕	✕
Called Identification	✕	✕	✕	✕	✕
Caller ID with SMDI	✕	✕	✕	✕	✕

Table 4   Strata CIX Voice Processing Feature/System Comparison Chart *(continued)*

Stratagy Features	GVPH	LVMU1A	IVP8 R2	iES16	ES48, ES96R2
Caller Confirmation Prior to Transferring	✕	✕	✕	✕	✕
Call Record (with Strata CIX)	✕	✕	✕	✕	✕
Call Record Over Strata Net	NA	NA	NA	✕	✕
Call Queuing	✕	✕	✕	✕	✕
Call Screening	✕	✕	✕	✕	✕
Class of Service (COS)	NA	NA	NA	✕	✕
Copy Mailbox	✕	✕	✕	✕	✕
Copy Range	✕	✕	✕	✕	✕
Directory	✕	✕	✕	✕	✕
Direct Transfer to Voice Mailbox (from Strata CIX)	✕	✕	✕	✕	✕
Disk Space Notification	✕	✕	✕	✕	✕
Distribution Lists	✕	✕	✕	✕	✕
Do Not Disturb (DND)	✕	✕	✕	✕	✕
Extensions—Scheduled	✕	✕	✕	✕	✕
Fax Tone Detection	✕	✕	✕	✕	✕
Future Delivery	✕	✕	✕	✕	✕
Guest User Mailboxes	✕	✕	✕	✕	✕
Independent Port Greetings	✕	✕	✕	✕	✕
Interactive Voice Response (IVR) via Token Programming	NA	NA	✕[1,2]	✕	✕
Mailbox – Function Lock	NA	NA	NA	✕	✕
Mailbox – Groups	✕	✕	✕	✕	✕
Mailbox – Security Code	✕	✕	✕	✕	✕
Mailbox – Personal Greetings	✕	✕	✕	✕	✕
Mailbox – Time Zone Setting	NA	NA	NA	✕	✕
Mailbox Number – Varied/Fixed Length	✕	✕	✕	✕	✕
Message – Continuous Delete	✕	✕	✕	✕	✕
Message – Continuous Playback	✕	✕	✕	✕	✕
Message – Date and Time	✕	✕	✕	✕	✕
Message – Forwarding	✕	✕	✕	✕	✕
Message – Pause During Playback	✕	✕	✕	✕	✕

Table 4   Strata CIX Voice Processing Feature/System Comparison Chart *(continued)*

Stratagy Features	GVPH	LVMU1A	IVP8 R2	iES16	ES48, ES96R2
Message – Pause During Recording	✕	✕	✕	✕	✕
Message – Playback Control	✕	✕	✕	✕	✕
Message – Purging	✕	✕	✕	✕	✕
Message – Reply	✕	✕	✕	✕	✕
Message – Retrieval Control	✕	✕	✕	✕	✕
Message – Return Receipt Verification	✕	✕	✕	✕	✕
Message – Speed Control	NA	NA	NA	✕	✕
Message – Notification	✕	✕	✕	✕	✕
Message Storage – Personal Folders	NA	NA	NA	✕	✕
Message Storage – Message Queues	✕	✕	✕	NA	NA
Message – Volume Control	✕	✕	NA	✕	✕
Messages – Private	✕	✕	✕	✕	✕
Messages – Urgent	✕	✕	✕	✕	✕
Multiple System Languages	✕	✕	✕	✕	✕
Networking (AMIS)	NA	NA	✕	✕	✕
Networking (VPIM)	NA	NA	NA	✕	✕
Paging – Office	✕	✕	✕	✕	✕
Paging – Relay	✕	✕	✕	✕	✕
Remote Administration	✕	✕	✕	✕	✕
Reports	✕	✕	✕	✕	✕
Shutdown using the Telephone Dial Pad	✕	✕	✕	NA	NA
Single-digit Menus	✕	✕	✕	✕	✕
Soft Key Control of Voice Mail	✕	✕	NA	✕	✕
Soft Key Control Over Strata Net	✕	✕	NA	✕	✕
System Administrator's Mailbox	✕	✕	✕	✕	✕
System Backup	✕	✕	✕	✕	✕
Token Programming (custom applications, IVR, etc.)	Limited	Limited	✕[1,2]	✕	✕
Toshiba Plug and Play	✕	✕	✕	✕	✕
User Tutorial (New User)	✕	✕	✕	✕	✕
Varied Sampling Rates	NA	NA	NA	✕	✕

Table 4   Strata CIX Voice Processing Feature/System Comparison Chart *(continued)*

Stratagy Features	GVPH	LVMU1A	IVP8 R2	iES16	ES48, ES96R2
Voice Forms	✕	✕	✕	✕	✕
1. Stratagy IVP8 R2 does not support fax tokens.					

Telephone System Integration	GVPH	LVMU1A	IVP8 R2	iES16	ES48, ES96R2
Inband Integration	NA	NA	✕	NA	✕
CIX Proprietary Integration	NA	NA	NA	✕	✕
SMDI Integration	NA	NA	✕	✕	✕
CIX Backplane Integration	✕	✕	NA	NA	NA

Strata System Compatibility	GVPH	LVMU1A	IVP8 R2	iES16	ES48, ES96R2
DK24/DK56/DK96	NA	NA	NA	NA	✕
Legacy Strata DK280, DK424, DK424i	NA	NA	✕	NA	✕
Strata CIX100 and Strata CIX670	NA	✕	✕	✕	✕
Strata CIX40	✕	NA	NA	NA	NA

Feature Groups	GVPH	LVMU1A	IVP8 R2	iES16	ES48, ES96R2
Fax	NA	NA	NA	✕	✕
Unified Messaging (UM)	NA	NA	NA	✕	✕
Automatic Speech Recognition (ASR)	NA	NA	NA	Future Release	✕
Text-to-Speech (TTS)	NA	NA	NA	✕	✕
Interactive Voice Response (IVR)	NA	NA	NA	✕	✕

Features 2

This chapter presents an overview of available Stratagy standard features. Stratagy ES features provided through the use of Feature Groups are described in Chapter 3 – Stratagy ES Feature Groups.

Audiotex

System Availability: All systems

By entering select DTMF digits, as directed by audio prompts, a caller can play prerecorded information from Stratagy. This information can consist of general information about the company, such as its address, telephone number and fax number, or it can include specific product descriptions or other information that may be of interest to callers.

Benefit(s)

Provides a company with an automated, cost-effective method to answer customers' most frequently-asked questions.

Automated Attendant (AA)

System Availability: All systems

The system answers incoming lines and lets callers route their own calls by entering a mailbox number or a Single-digit Menu. If the mailbox is recognized by the system, the call is handled according to the configuration of that mailbox. This configuration may direct Stratagy to dial an extension and, after performing Call Screening (if enabled), pass the call on to the user or execute an IVR application.

Stratagy's Automated Attendant feature is configured by the System Administrator. The user can also control some features, such as DND and Call Screening, if configured by the System Administrator.

Features can also be changed automatically based on the time of day. For example, the mailbox can be put into the DND mode automatically after hours and turned off at the beginning of the next business day.

Benefit(s)

• Enables callers to direct their own calls and leave accurate and complete messages for the called party.

• Extends the company's telecommunications capabilities and frees receptionists and other personnel to perform duties other than answering the telephones.

Automatic Message Copy

System Availability: All systems

A mailbox can be configured to automatically copy all incoming messages into a second designated mailbox's folder of messages. Both mailboxes retain a copy of the message. The times (start/end) can be set that the messages are copied and a time delay, if one is needed, can be specified. A mailbox can also be programmed to delete a message once it has been forwarded.

In addition, Stratagy ES software enables a user through a touchtone telephone to enable/disable this feature for his/her mailbox as well as set options (e.g., designated mailbox, start and end times, etc.). The System Administrator can stop (lock out) the user from accessing this feature.

Benefit(s)

• Enables users to handle mail more efficiently.

• Enables several different mailboxes to forward any received mail to a central mailbox. Small companies find this feature useful since it can make them appear to have more personnel than they actually have.

• Provides a forwarding feature for mailboxes. For example, when an employee has left a company, any new messages can be forwarded to the person's replacement.

Called Identification

System Availability: All systems

Announces the called party prior to connecting the call. For example, calls directed to a single extension for both "Sales" and "Service" can be answered appropriately, since the words "Sales" or "Service" play before the caller is connected. The System Administrator sets this feature on a per-mailbox basis.

Benefit(s)

• Enables two people or departments to share a single extension.

• Message Pooling is also an advantage of this feature. All messages left after hours can be stored in a single mailbox, eliminating the process of checking multiple mailboxes for messages.

Caller ID with SMDI

System Availability: SES, IVP8 R2

When a Stratagy system is integrated via SMDI with the Strata CIX/Strata DK280 / DK424 telephone systems that support caller ID, the incoming Calling Party ID is played as part of the header information of the message. With the use of the Token Programming Language, Stratagy can also play a specific greeting or route a call based on the telephone number received from the SMDI/Caller ID information.

Note GVPH and LVMU1A utilize backplane integration with CIX. No additional CIX hardware is required for CIX integration with LVMU1A and GVPH.

Caller Confirmation Prior to Transferring

System Availability: All systems

When a caller stays on the line and does not enter any DTMF digits, the system assumes that the caller is using a rotary telephone and the call is transferred to the operator for assistance. In some cases, a "no response" call is caused by a caller hang up that has gone undetected by the telephone system.

Stratagy can be configured to handle both possibilities by asking for oral confirmation from the caller. Depending on whether there is a response, the call is either transferred to the operator or disconnected.

Benefit(s)

- Eliminates calls being transferred to the operator when the outside caller has already hung up, making more effective use of the ports and personnel.

- Makes Stratagy easily adaptable to a variety of different telephone environments.

Call Record (with Strata CIX)

System Availability: All systems

Important! *Requires SMDI integration with Strata CIX systems. GVPH and LVMU1A utilize backplane integration with CIX.*

While on an active call, a station user can record the conversation and store it in a Stratagy voice mailbox by pressing an optionally programmed **Record** feature key on the telephone.

Note Once the **Record** button is pressed, the Record LED flashes rapidly and there is approximately a one second interval (in extreme busy conditions, up to five seconds) before the recording starts and the Record LED changes to the in-use interval flash rate.

To stop recording, the user only has to press the **Record** key again. Recordings can also be paused and restarted by pressing an optionally programmed **PS/RES** key on the phone. Users can be given the ability to have the recordings go to their personal mailbox or to an alternate mailbox.

Benefit(s)

The user can keep a record of important phone calls for reference.

Call Record Over Strata Net

System Availability: Stratagy ES

Important! *Requires CIX Proprietary Integration, Strata CIX Release 2, and Stratagy ES Release 4 software or higher.*

The Call Record to Remote Voice Mail feature works for users in all Strata CIX nodes within a Strata Net multi-system networking configuration. Previously, the voice mail Call Record feature was only available to users in the Strata CIX node hosting the Stratagy ES voice processing system.

Note The Call Record feature remains only locally supported if the Stratagy voice mail system is a Stratagy IVP8 R2.

Call Queuing

System Availability: All systems

When a user's extension is busy, Stratagy can be configured to offer the caller the option of either leaving a message or holding until the called extension becomes available. If the caller opts to hold, Stratagy plays "on-hold music" (or other information such as company name, product name or information). If more than one caller chooses to hold for the same extension, Stratagy queues the callers in the order their calls were received. Callers are periodically informed of their position in the queue.

Benefit(s)

• Provides callers an efficient and friendly method to "wait in line" for the called party.

• Callers hear music/information while they wait and all calls are connected on a first-come basis.

Call Screening

System Availability: All systems

When a caller enters a user's mailbox number with Call Screening enabled, the system requests the caller state his/her name and the name of the company he/she represents. Stratagy records the information, dials the extension, and announces the calling party by playing the recording.

The user enters DTMF digits to accept or reject the call or to route the caller to another user, including an announcement. A rejected caller is prompted to leave a voice mail message for the user.

Benefit(s)

Enables users to:

• Take important calls while routing other calls to their voice mailbox where they can be played at a more convenient time.

• Prioritize their time more efficiently.

• Reserve certain times or days for specific tasks.

Class of Service (COS)

System Availability: Stratagy ES

System Administrators can create and manage mailboxes with similar attributes using a function called Class of Service (COS).

When the System Administrator changes a feature(s) in the COS parent, the same feature(s) are changed automatically in all user mailboxes that have been assigned to that COS. In other words, the COS parent enables the System Administrator to do global changes within the dependent user mailboxes.

Overridden fields can be changed back using the Revert function for individual fields or the Reset function to clear the overrides from all fields in the mailbox.

User mailboxes can also be created without dependence on a COS user agent. Mailboxes created in that manner, using the Mailbox User Agent feature, must have the function(s) or settings changed individually.

Copy Mailbox

System Availability: All systems

The Copy Mailbox feature enables the System Administrator to create new mailboxes by copying an existing mailbox.

Benefit(s)

Saves the System Administrator time when installing new systems, upgrades and/or system reprogramming by providing a template for creating mailboxes.

Copy Range

System Availability: All systems

The Copy Range feature enables the System Administrator to create any number of new User IDs at one time by copying an existing User ID.

Benefit(s)

Saves the System Administrator time when installing new systems, upgrades and/or system reprogramming by providing a template for creating User IDs.

Directory

System Availability: All systems

To contact a user when their extension number is not known, a caller enters the DTMF digits corresponding to the first few letters of a user's first or last name and Stratagy plays the recorded name that matches the entered digits. The caller is then offered the option of selecting the name and being transferred or hearing the next name.

Benefit(s)

Speeds call processing, by enabling callers to find the person they want to reach without requiring operator assistance, or knowing their extension number.

Direct Transfer to Voice Mailbox (from Strata CIX)

System Availability: All systems

Internal users of the Strata CIX can transfer a call directly to another user's Stratagy mailbox without having to wait for the call to first forward from the called party's telephone.

This feature provides an efficient means to deliver callers to voice mail users, for example outside sales personnel, who have not been assigned an active telephone extension within the Strata CIX. In addition, the Direct Transfer to Voice Mailbox feature does not require a phantom extension number to be programmed within the CIX.

Benefit(s)

Transfer to Voice Mail simplifies getting a call for a busy or absent employee to his/her mailbox. It eliminates the need for the caller to enter the desired mailbox number after being connected to the voice mail system.

Disk Space Notification

System Availability: All systems

Automatically notifies the System Administrator whenever available system disk space falls below a defined threshold.

During installation and configuration, the System Administrator sets the percentage of available disk space that should always remain on the hard drive. When the available space falls below this value, the notification feature is activated. Under normal conditions, the system is checked automatically once per hour to determine the remaining disk space storage.

Benefit(s)

Assists the System Administrator in monitoring the system by automatic notification when disk space reaches a threshold for recording messages.

Distribution Lists

System Availability: All systems

Users can originate up to seven Personal Distribution Lists for the Stratagy IVP8 R2 or up to 25 for the Stratagy ES. The lists must consist of other system users and the originator can add or delete people at any time.

In addition to Personal Distribution Lists, Stratagy supports system-wide distribution lists available for use by all system users. The System Administrator creates the System Distribution Lists. The Stratagy IVP8 R2 support seven system distribution lists. The Stratagy ES support an unlimited number of system distribution lists.

Benefit(s)

- Provides the user with a quick-and-easy method of sending messages to large groups of people. Lists such as the "sales force" or "marketing department" eliminates rekeying each time they are needed.
- System-wide lists:
  - Save system disk space by eliminating duplication of standard lists.
  - Offer the user preset lists that they do not have to maintain.

Do Not Disturb (DND)

System Availability: All systems

When the Stratagy DND feature for a mailbox is activated, calls are processed as if the called extension is not available.

The user through a touchtone telephone can enable/disable this feature for his/her mailbox. The System Administrator can stop the user from accessing this feature and changing it.

Benefit(s)

By setting DND to on at the end of the business day and off at the beginning of the next, call processing is more efficient. Calls during off-hours go directly to voice mail and callers do not have to wait for the extension to ring.

Fax Tone Detection

System Availability: All systems

All Stratagy systems can be programmed to listen for an incoming fax tone when answering incoming lines. If a fax tone is detected, Stratagy transfers the call to the destination extension (designated by the mailbox) of the fax machine.

Benefit(s)

• Improves call processing speed.

• Provides flexibility in call handling.

• Eliminates the need for a separate dedicated Central Office (CO) line for the fax machine.

Future Delivery

System Availability: All systems

A user can create and address a message to another user, and then mark it for future delivery. The message is not delivered until the designated date and time has been reached by the system clock. A user can also review and/or delete a future delivery message.

Benefit(s)

Enables users to take advantage of a Stratagy's pre-set future time/day/date capability for sending messages. This is very useful for meeting notices or sending reminders to yourself or others.

Guest User Mailboxes

System Availability: All systems

Each user can create Guest Mailboxes for use by clients, friends, etc. The maximum number allowed is set by the System Administrator on a per-mailbox basis; therefore, conserving available system disk space.

The guest mailboxes can be deleted by the same user who created them or by the System Administrator.

Benefit(s)

• Enables the exchange of confidential information with clients, sales representatives, etc.

• Provides flexibility in creating guest users. In some environments, it can be desirable to allow some users to create guests while others cannot, and/or to allow some users to create more guest users than others.

Independent Port Greetings

System Availability: All systems

The system can be configured to direct all incoming calls for a given voice port to a specified mailbox. Callers hear the greeting recorded for that mailbox when the port receives a call. Each voice port in the system can be configured to begin processing with a different mailbox, and therefore hear different initial greetings, menu options, processing paths, etc., depending on how the mailboxes are programmed.

Benefit(s)

This feature can be used, for example, by two companies sharing the same Stratagy system or by a company which would like to dedicate ports for specific purposes, such as information lines versus regular Automated Attendant and voice mail lines.

Interactive Voice Response (IVR)

System Availability: All systems

Through the use of Token Programming Language Stratagy systems have a number of features that enables it to be used for *small basic* Interactive Voice Response (IVR) applications.

Databases can be on Stratagy's hard drive or reside on a mainframe or other data server and accessed through Stratagy's serial ports. The Stratagy ES has the IVR Feature Group that enables software developers to create complete IVR applications that can access data through the network connection. Queries can be constructed in a free-form fashion, by using variables that are entered by the caller. Stratagy can be programmed to play this data back to the caller in a number of different ways: as a date, time, monetary value (in dollars and cents), or simply as a number.

Benefit(s)

Stratagy provides a rich programming language (see "Token Programming Language" on page 37) for expressing system actions and interactions with the caller, as well as database access.

Mailbox – Function Lock

System Availability: Stratagy ES

Mailbox features can be locked by the System Administrator using the Lock function provided on the Stratagy ES Administration screens. By locking a field, the System Administrator prevents the user from changing user options (e.g., DND, call screening, etc.) from his/her touchtone telephone.

Benefit(s)

*   Offers flexibility for setting options by user mailbox. For example, there might be a company policy against setting the mailbox to the DND mode. For users affected by this policy, the System Administrator sets DND to No, and uses the Lock function to lock the option, so that users are not given the opportunity to change the setting.

*   Eliminates unauthorized personnel from changing mailbox settings.

Mailbox – Groups

System Availability: All systems

Groups control which mailboxes a caller can access to leave messages, etc. Each mailbox can belong to as many as four different "groups" designated by the System Administrator. When Stratagy transfers a call, it first determines if the calling mailbox has any groups in common with the destination mailbox. If it does, the transfer proceeds. Otherwise, Stratagy switches to a default mailbox for processing based on the current system port number and either blocks or reroutes the call.

Benefit(s)

Group Partitions can be used for several different purposes. For example, if two companies are sharing a single Stratagy system, they may use two different group partition numbers for their respective mailboxes. This blocks the call and prevents callers from inadvertently transferring from one company to the other.

Mailbox – Personal Greeting

System Availability: All systems

Each user can record up to seven personal greetings that are played when the user is unavailable. Although only one greeting can be in effect at any one time, the user can switch between the greetings by entering the greeting number, or the System Administrator can pre-schedule different greetings to play at a certain time and/or day.

Benefit(s)

Enables users to take advantage of having multiple pre-recorded greetings to address different situations - at work but out of the office, in a meeting, home for the day, on vacation, etc. By choosing the appropriate greeting, the user can give more information to callers.

Mailbox – Security Code

System Availability: All systems

Each mailbox in the system has a security code (maximum length 16 digits). The code must be entered by the caller in order to "log into" a mailbox, enabling access to its messages, settings, greetings, etc.

Once logged in, a user can and should change the security code periodically. The System Administrator specifies the initial security code for each mailbox and can set a minimum length restriction for the code.

Although the System Administrator can change the code at any time, he/she does not have access to existing mailbox security codes.

Benefit(s)

Restricts access to mailbox features and messages to the authorized user of the mailbox.

Mailbox – Time Zone Assignment

System Availability: Stratagy ES

Each mailbox of the Stratagy ES can be configured for a time zone that is relative to the location of the mailbox user. Messages that arrive for a configured mailbox will be date and time stamped based on the time zone defined for the mailbox, not the time zone configured in the Stratagy ES operating system.

Benefit(s)

This feature is useful in a network with a centralized voice mail system. For example, if a Stratagy ES system resides in Irvine, California and one of its mailbox users resides in Ogden, Utah, then the mailbox for this user could be configured for the Mountain time zone. If a message arrives for this user, at ten o'clock in the morning Pacific time, the time stamp for the message would be eleven o'clock Mountain time.

Mailbox Number – Varied/Fixed Length

System Availability: All systems

Stratagy supports mailboxes of up to eight digits, or 100 million different possible mailbox numbers. Due to hard drive storage limitations, not all 100 million Stratagy mailboxes can be installed. The maximum number of installed mailboxes is dependent on the customer application.

Varied Length Mailboxes: Mailbox numbers may vary in length and are non-conflicting. That is, both "111" and "1111" can be separate mailboxes, and both can be used by the system. Thus, no mailboxes are ever precluded.

Fixed Length Mailboxes: Mailbox numbers can also be set to a specific length based on the first digit (0~9) used. For example: all mailbox numbers starting with "1" are three digits long. Therefore, "111" is a valid mailbox number and "1111" is not. Fixed Length mailbox numbers enable Stratagy to process calls immediately after the last fixed length digit is dialed, and does not require a **#** digit or time-out to indicate the end of a mailbox number.

Benefit(s)

Provides flexibility in mailbox numbering.

Message – Continuous Delete

System Availability: All systems

A user can enter a DTMF command that deletes several messages at one time. The number of messages deleted is based on a preset length of recorded time (designated in minutes) and therefore varies. The messages deleted are those whose cumulative time is equal to, or less than, the designated number of minutes.

Important! *The deletion starts with the first message in the queue and continues until the preset time has expired. Both heard and unheard messages are deleted. If there are two queues - new and saved - the deletion occurs only in the queue the user is in when continuous delete is requested.*

Benefit(s)

Transcription services that are accustomed to working from audio tape recordings rather than directly from voice mail recordings would find this feature useful. This feature can also be used with the Message Playback—Continuous feature.

Message – Continuous Playback

System Availability: All systems

A user can enter a DTMF command that plays several messages at one time without stopping between each message. The number of messages played is determined by a preset length of recorded time (designated in minutes) and therefore varies. The number of played messages is those whose cumulative time is equal to, or less than, the designated number of minutes.

Benefit(s)

Transcription services that are accustomed to working from audio tape recordings rather than directly from voice mail recordings would find this feature useful. This feature can also be used with the Message Delete—Continuous feature.

Message – Date and Time

System Availability: All systems

Prior to playing the contents of the a message, the System Administrator can configure each mailbox or group of mailboxes to automatically play the date and time the message was recorded.

If the mailbox is not configured to play the date/time automatically or the user wants it replayed after hearing the message, this feature enables the user to enter DTMF commands and play the date/time of the current message.

Benefit(s)

Enables the user to effectively answer messages (e.g., a message states "I will be in the office for the next hour).

Message – Forwarding

System Availability: All systems

Enables a user to send a played message to other users in Stratagy. In forwarding the message, the originating user can optionally record comments that precede the message when it is played by the recipient(s).

A message cannot be forwarded if the original message is marked "private" or to a user who does not share a common group number with the sender.

Benefit(s)

Enables users to easily share information in a received message.

Message – Notification

System Availability: All systems

Each mailbox can have up to 10 notifications on Stratagy IVP8 R2, and an unlimited number of notification records on Stratagy ES. The System Administrator programs each mailbox with specific notification methods (message waiting lights, pagers, voice, etc.) and the time/day when the notification record applies. The repeat count and interval for retrying the notification is also set.

Each notification method is a flexible dial string enabling Stratagy to be used with almost any kind of PBX or notification method, including cascade notification. Users can be given the option to change certain variables (i.e., telephone number) of a notification record or cancel a record from any tone-dialing telephone.

Notifications can be triggered by a number of different events. The most common event is the receipt of a new message. Notification types are:

• Normal - all new messages. The user can be notified by any combination of lighting a message waiting light, or calling a home phone, cellular phone or any off-premise location.
• Relay - The caller is prompted to enter their telephone number. The telephone number is then forwarded to the Stratagy user's display pager.
• Pickup - Turns off the Stratagy user's message waiting light after messages in the New Message queue are played.
• Urgent - A separate notification from Normal that notifies the user of a message that has been marked as Urgent by the sender.
• Disk Space - Alerts the System Administrator when available hard drive space is low (see "Disk Space Notification" on page 22 for more information).
• Panic - Alerts the System Administrator in the event of an unsuccessful restart during Automatic System Recovery.

Note   The Panic notification is supported by the Stratagy IVP8 R2.

Benefit(s)

- Flexible notification records enable Stratagy to be used with almost any kind of PBX or notification method.
- Enables users to receive notification by the best method for them. For example, someone in the field can receive a pager notification while another person in the office receives a message waiting light.
- Availability of a separate Urgent notification type for Urgent message notification adds to Stratagy's flexibility. Users might, for example, want to be notified by pager only when an Urgent message arrives.

Message – Pause During Playback

System Availability: All systems

While playing a message, a user can at anytime pause the playback for a predetermined amount of time (default is 30 seconds) by pressing the appropriate key on the DTMF telephone dial pad. Pressing any key before the 30 seconds has transpired, causes playback to resume immediately. While the playback is paused, Stratagy is silent.

Benefit(s)

Enables a user to pause a message when an interruption occurs (e.g., someone coming into the office) and resume playback without losing continuity in the message.

Message – Pause During Recording

System Availability: All systems

While playing a message, a user can at anytime pause the recording for a predetermined amount of time (default is 30 seconds) by pressing the appropriate key on the DTMF telephone dial pad. Pressing any key before the 30 seconds has transpired, causes recording to resume immediately. While the recording is paused, Stratagy is silent.

Benefit(s)

Enables a user to pause a message when an interruption occurs (e.g., someone coming into the office) and resume recording without losing continuity in the message.

Message – Playback Control

System Availability: All systems

Enables the user to control message playback by pressing the appropriate keys on a DTMF telephone dial pad. The following options are available:

- Replay the current message from the beginning.
- Play the previous message. If the user is playing the first message in the queue when this feature is used, Stratagy goes to the bottom of the queue and plays the last message.
- Play the next message. If the user is playing the last message in the queue when this feature is used, Stratagy goes to the top of the queue and plays the first message.
- Skip forward or backward in the current recording.

Benefit(s)

- Useful to users who want to write down a long phone number or other information in a message.
- Enables a user to skip forward in a previously-heard message to get one particular piece of information.

Message – Purging

System Availability: All systems

The system can be configured to "purge" or delete messages on a mailbox-by-mailbox basis in a configurable number of days after they have been heard. Unheard messages are never purged.

A user, logging into his/her mailbox, is informed of any messages(s) that will be purged. Before exiting the mailbox, the user is reminded that the messages will be purged upon logging out. The default value is zero days, meaning that no purging is ever performed.

Benefit(s)

• Enables the System Administrator to have better control of disk space utilization within the system.

• Guarantees that old messages are eventually deleted.

Message – Reply

System Availability: All systems

When one Stratagy user sends a voice mail to another, the recipient can send a reply without entering the sender's mailbox number. While listening to the message, a single DTMF digit can be entered and a reply message recorded.

If the message was not recorded from a user's mailbox, the recipient may still reply to the message but must enter the destination mailbox number.

Benefit(s)

Makes Stratagy easier and faster to use by reducing the amount of digits that must be keyed into the system when replying to a message.

Message – Retrieval Control

System Availability: All systems

Selects the order in which messages play. By default, Stratagy plays any message marked Urgent first. All normal messages (i.e., messages not marked urgent) are played next. If there are multiple urgent and/or normal messages, Stratagy automatically plays them in the order received (in "FIFO" first-in first-out order). For example, urgent messages would be played first in FIFO order and then normal messages next in FIFO order.

Using this feature, you can change the order in which multiple messages (urgent and normal) play to a "LIFO" last-in first-out order.

Benefit(s)

Enables users to play messages in the desired order, while still playing urgent messages first.

Message – Return Receipt Verification

System Availability: All systems

When a user sends or forwards a message to another user, the message can be marked for return receipt verification. When the message is played (partially or completely) by the recipient, Stratagy automatically sends a notification message to the sender.

The sender, when he/she plays the notification announcement, hears the original message and the date and time the message was heard. The recipient is not notified that return receipt verification was requested and cannot circumvent this procedure.

Benefit(s)

Confirms that important instructions or information that are included in a message have been heard.

Message – Speed Control

System Availability: Stratagy ES

Stratagy permits real-time speed control of messages during playback. While listening to messages, a user can press the appropriate DTMF keys on the telephone dial pad to change playback speed. The playback increase speed (1~4) is selected by the System Administrator.

This feature incorporates pitch control to maintain voice quality during faster message playback.

Benefit(s)

Expedites message playback by listening to long messages at a faster speed.

Message – Storage

Network Storage

System Availability: Stratagy ES

With Stratagy ES software Release 4.6 or 5.1 (and higher) software an advanced utility is available that allows Stratagy ES to off load voice message recordings to any network storage device that can be linked to a Stratagy ES hard drive or Stratagy iES16 compact flash drive via a standard share mechanism. All customer database information as well as the users custom names and greetings to be stored on the onboard media of the Stratagy ES / iES system.

If for any reason the network connection between the host SES system and the network storage device is lost, Stratagy ES will begin recording voice messages to the host media of that system. Once the Network Storage Utility auto-detects the network connection has been restored, Stratagy ES will resume sending voice messages to the network storage device.

This utility makes it easy to extend the storage capacity of any SES system, like the Compact Flash based Stratagy iES16, or utilize a redundant storage device (RAID) that is accessible via the network.

Personal Folders

System Availability: Stratagy ES

A user's messages can reside in up to nine folders—one new, one saved and seven personal message folders created by the user for the purpose of saving his/her own messages. The personal message folders are only for the use of the originator.

Note   In Stratagy IVP8 R2, messages are similarly stored in Message Queues.

Benefit(s)

Enables users to categorize and organize saved messages in general topics, e.g., "messages from Toshiba America."

Message Queues

System Availability: Stratagy IVP8 R2, GVPH, LVMU1A

A user's messages reside in one of two Message Queues:

New message queue – Stores unheard messages and pending messages (a message heard for more than two seconds).

Saved message queue – Stores messages that the user saved or that was automatically saved by Stratagy after the entire message played.

Note In Stratagy ES, messages are similarly stored in Message Folders.

Benefit(s)

Storing new and saved messages in separate queues provides the user the ability to better manage their messages.

Message – Volume Control

System Availability: All systems

Stratagy permits real-time volume control of messages during playback. While listening to messages, a user can press the appropriate DTMF keys on the telephone dial pad to increase or decrease the volume. There are 17 levels of volume control. Each step increases or decreases the playback volume by 3 dB. The system default is the middle position, allowing eight steps in either direction.

Benefit(s)

Users can use this feature to compensate for overly loud or soft recordings, to overcome unusually loud background noise level (e.g., a busy airport), or to compensate for telephones that play back at a low level (e.g., some cellular phones).

Messages – Private

System Availability: All systems

A caller can mark a message "private," meaning the message cannot be forwarded by the recipient to another user. The recipient is told the message has the Private attribute set when listening to the message.

Benefit(s)

Ensures the confidentiality of the information in the message.

Messages – Urgent

System Availability: All systems

A caller can mark a message Urgent. The message is given the top priority in the playback order. The recipient, upon entering the mailbox is informed of the Urgent message. In addition, the System Administrator can set a notification record to use pager notification exclusively whenever messages are received in the Urgent Message Folder (see Notification—Message feature).

Benefit(s)

Ensures that Urgent messages are heard as soon as possible.

Multiple System Languages

System Availability: All systems

Stratagy is designed to be able to communicate in different languages from the standard American English. This includes the system prompts that give callers and users instructions for message recording and mailbox management.

Within a Stratagy ES system each mailbox can be assigned to one or more of the configured languages, so greetings and instructions for message recording are spoken in the predefined language. In addition, multiple languages can be assigned for the LCD Soft Key Control of Voice Mail feature with the Strata CIX phone system.

American English is the standard language of Stratagy. With the release of Stratagy 4.6 software, Spanish prompts are available for purchase on CD-ROMs (Stratagy IVP8 R2 – Part #SG-SPANISH, Stratagy ES/iES16 and 32 – Part # SES-SPANISH). Other languages for system prompts in the Stratagy IVP8 and Stratagy SES/iES16 systems, as well as the Voice Mail Soft Keys in the Stratagy ES/iES16 is a custom option that is available from Toshiba TSD's Integrated Software Solutions Group. Please contact a TSD Regional Sales Manager for more details.

Note   GVPH and LVMU1A offer bilingual support (English / Spanish) standard. No additional software is required.

Benefit(s)

Provides companies who do business with overseas customers with a multi-language voice mail system.

Networking (AMIS)

System Availability: Stratagy IVP8 R2, Stratagy ES

Stratagy software supports industry standard AMIS analog networking. The AMIS analog networking protocol enables Stratagy to pass voice messages to any remote voice mail system that supports the AMIS analog protocol.

Note   The AMIS analog networking specification does not support transmission of a fax message over the AMIS analog network.

Benefit(s)

AMIS enables a Stratagy mailbox user to send, receive and reply to *relayed* voice messages over an analog telephone network.

Networking (VPIM)

System Availability: Stratagy ES

Voice Profile for Internet Mail (VPIM) is an industry standard process that facilitates server-to-server message exchange over the Internet between VPIM compliant voice processing systems from different manufacturers. VPIM can exchange both voice and fax messages as long as they are of the format dictated by the VPIM standard.

Benefit(s)

One excellent use for VPIM with the Stratagy ES is in a networked enterprise where there are multiple CIX phone systems supporting multiple Stratagy ES systems or VPIM-compliant systems from other manufacturers. Though a centralized voice mail system would be the preferable configuration for a network, some companies may already own multiple voice mail systems and it may be more cost effective to upgrade them to VPIM compliance.

Paging – Office

System Availability: All systems

This feature enables individual users to receive a page over the office telephone system or overhead paging system automatically via Stratagy ES. Stratagy ES places the call on hold or park and makes a prerecorded page announcement using the DTMF access codes. The System Administrator configures this feature for each mailbox using tokens.

Benefit(s)

Assures users that they will not miss important telephone calls.

Paging – Relay

System Availability: All systems

Relay Paging streamlines Notification—Message by permitting the caller to enter a telephone number while the user's greeting plays. The system pages the user but the pager displays only the telephone number entered by the caller.

Benefit(s)

Shortcuts the normal procedure, enabling the user to return calls more promptly.

Remote Administration

Stratagy IVP8 R2, GVPH, LVMU1A

The Remote Administrator has full screen access to the system (protected by two different passwords), including all available system features. The Remote Administrator can at any time dial into the system, via modem, from any PC running the Stratagy remote access software.

Benefit(s)

Assists the System Administrator in diagnosing problems and managing Stratagy ES from different remote sites.

Stratagy ES

Using the standard internal modem and pcANYWHERE (ES48, and ES96R2) or NetMeeting (Stratagy iES16) software, Toshiba Authorized Dealer Technicians or Toshiba Technical Support Engineers have full screen access to the system, including every available system feature.

Reports

Stratagy IVP8 R2, GVPH, LVMU1A

The System Administrator can generate an almost unlimited number of different reports covering system activity and programming. The report's columns represent fields of the User screen, and can include either all or a subset of User IDs in the system.

Benefit(s)

- Produces a written record (report) of Stratagy programming to show the statistical information recorded for each mailbox.

- Measures system activity and usage.

- A report can be used as a template to eliminate re-keying new reports.

Stratagy ES

The System Administrator can generate a number of different reports covering system activity and programming. The System Administrator can view, print or save a report to file. Each report is formatted into a Seagate Crystal Reports™ database. These reports can then be exported to any one of a number of databases, spreadsheets, and file formats offered by Crystal Reports.

There are two sets of report options available:

- Report Option 1 contains a predefined set of comprehensive reports covering statistics for ports, calls, messages, system information, and mailbox information. The reports are:
- Individual Port Statistics
- Port Group Statistics
- All Port Statistical
- Mailbox Call Processing Statistics
- Mailbox Usage Summary
- Mailbox Info and Status
- Mailbox Message Statistics
- System Information

  These reports are easily accessed through a screen enabling the System Administrator to run one or more of the reports and to designate the time period the report is to cover.

- Report Option 2 enables you to customize a report for user mailboxes and AMIS Gateway and Proxy mailboxes. The report columns represent fields of the User screen, and can include either all or a subset of mailboxes in the system.

Shutdown Using the Telephone Dial Pad

System Availability: Stratagy IVP8 R2

This feature enables the System Administrator to shut down the Stratagy system software using the telephone dial pad. To use the feature, the System Administrator accesses User ID mailbox 983 and enters the security code.

At the time of the shutdown request, all inactive channels are taken off-hook. All active channels are given a 60-second time delay to complete processing the current activity. After 60 seconds, they are disconnected and the Stratagy system software shuts down. Stratagy's power remains on.

Benefit(s)

- Provides the System Administrator with a safe way to shut down the Stratagy system for power off without having to directly access the system.
- Prevents file corruption that could occur if Stratagy software is still running when the system is powered off.

Single-digit Menus

System Availability: All systems

The System Administrator can define the single-digit menu number(s) for each mailbox. While a user's greeting plays, a caller can enter one of these DTMF digits to select an option on the menu, such as a personal assistant, Call Queuing, the operator, or access to an application such as office paging or Audiotex.

Benefit(s)

• Enables Audiotex menu hierarchies. Each mailbox can be configured as an "Information-only mailbox." The mailbox plays the information and then processes the call to another mailbox, either chosen by the caller by pressing a menu button, or to a default mailbox specified by the mailbox's *Chain* field.

• Redefines the Operator (0). Employees can have callers press 0 and be transferred to their personal assistant rather than the general corporate operator.

Soft Key Control of Voice Mail

System Availability: Stratagy ES

Important! *Requires CIX Proprietary Integration.*

The Liquid Crystal Display (LCD) of digital telephones on the Strata CIX, provide a visual presentation of the options within Stratagy mailbox menus (sample shown at right). Depending on the size of the LCD screen, some or all of the menu options are available by pressing corresponding soft keys located next to the desired option or function.

When the digital phone is idle and a message arrives for an extension on the phone, the Msg LED is activated and the LCD shows the number of new and saved messages that are currently in the mailbox. If any of the messages are marked urgent, the LCD shows the number of new and urgent messages instead.

After a successful login to a mailbox, the LCD presents the mailbox Main Menu options—play messages, send messages, and manage mailbox. Selecting any one of these options presents a new LCD with the next available menu options.

Note For general information on using Soft Keys on your phone, please see the *Strata CIX IPT/DKT Telephone User Guide*. See the *Stratagy ES User Guide* for a sample list of available Soft Keys.

Benefit(s)

The user is able to view the mailbox menu options at a glance, enabling users to more efficiently and effectively navigate mailbox menus.
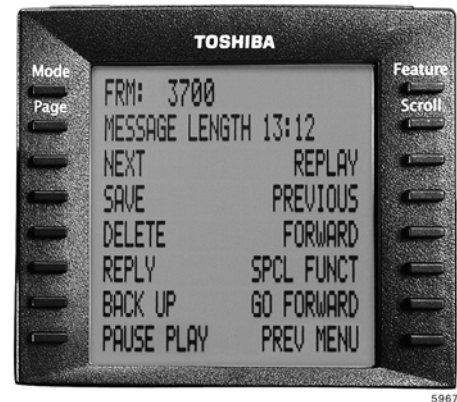
Soft Key Control Over Strata Net

System Availability: Stratagy ES

Important!   *Requires CIX Proprietary Integration, Strata CIX Release 2, and Stratagy ES Release 4 software or higher.*

Stratagy ES as the centralized voice mail system serving users in multiple Strata CIX systems networked together with Strata Net offers the user soft key control of voice mail as described above.

This feature works for users in all Strata CIX nodes in a Strata Net multi-system networking configuration. Previously, this feature was only available to users in the Strata CIX node hosting the Stratagy ES voice processing system.

Benefit(s)

The user is able to view the mailbox menu options at a glance, enabling users to more efficiently and effectively navigate mailbox menus.

System Administrator's Mailbox

System Availability: All systems

Stratagy has a special mailbox known as the System Administrator mailbox. It is Mailbox 999 and the System Administrator can access it through the telephone just as any other mailbox. The mailbox number (999) cannot be assigned to another mailbox number.

Through the mailbox, the System Administrator can perform the following functions:

- Record or delete a system announcement
- Record busy-hold music
- Lock and unlock user mailbox
- Review the system status
- Add, delete or reset a mailbox
- Reset security code
- Set the system date and time
- Add the user's name to the directory
- Record or change the instructional greeting

Benefit(s)

Enables the System Administrator to perform these functions from a telephone, without the need of a monitor/keyboard.

System Backup

System Availability: All systems

GVPH, LVMU1A and Stratagy IVP8 R2

Database information, greetings, and messages can be backed up to a computer connected to the serial port of the target voice mail system.

In the event of a replaced system or fatal error, the backup would be used to restore the system configuration.

Benefit(s)

- Greatly reduces the programming time of a repaired or upgraded system.

- Reduces the downtime of the customer's system.

Stratagy ES or iES16 Backup and Restore Utility

The Backup and Restore utility is available to connect to Stratagy ES or iES16 systems and start a backup or restore operation, either manually or at a scheduled time. To backup a system, the utility collects the configuration files and messages including registry keys and have them stored on a storage destination of the administrator's choice. The restore process will perform the reverse operation. This utility simplifies the process and makes the whole operation transparent to users. The utility consists of two parts: a service application running on the Stratagy ES or iES16 system, and a client application with a Graphical User Interface (GUI) for use by the administrator.

Token Programming Language

System Availability: All systems

While Stratagy provides an easy configuration of mailboxes for standard features (Audiotex, Automated Attendant, Voice Messaging, dialing a standard extension, etc.), it can create even more sophisticated applications by using the powerful Token Programming Language.

Tokens can perform functions as simple as a hookflash, and as complicated as an IVR application. But the real power of the Token Programming Language is the ability to create sophisticated application solutions.

Note   Fax tokens are *not* supported by the Stratagy IVP8 R2, LVMU1A or GVPH. Due to their software architecture, the GVPH and LVMU can only support a limited variety of tokens. Please contact your authorized Toshiba Dealer for available applications.

Benefit(s)

With the versatility and power of the Token Programming Language, Stratagy can be used to accomplish many tasks which cannot be done using other voice mail/Automated Attendant systems.

Toshiba Plug and Play

System Availability: All systems

Each Stratagy system has been preprogrammed at the factory for plug and play (out-of-box) operation with the following Toshiba telephone systems:

- Stratagy IVP8 R2, ES48, ES96R2 — Strata CIX
- Stratagy iES16 — Strata CIX
- LVMU1A – Strata CIX100
- GVPH – Strata CIX40

By using these plug-and-play configurations, the installer does not have to program in-band integration strings, ringback patterns, or make other system configuration changes. In addition, Strata CIX default extension numbers and user parameters are also preprogrammed in Stratagy IVP8 R2.

Complete integration with the following Strata plug-and-play configurations (without default User IDs and extension mailbox installations) is also available from a menu.

- Strata CIX40
- Strata CIX100
- Strata CIX100 w/SMDI
- Strata CIX670 Basic
- Strata CIX670 Basic w/SMDI
- Strata CIX670 Expanded
- Strata CIX670 Expanded w/SMDI

Speeds up the installation process and greatly reduces the chance of errors, since it uses pre-installed configuration files already tested with each Toshiba telephone system.

User Tutorial (New User)

System Availability: All systems

A first time user of Stratagy automatically hears a user-friendly tutorial upon logging in to his/her mailbox. The tutorial walks the user through the process of:

- Recording his/her name (if required)
- Recording a personal greeting for the mailbox
- Changing the security code

Once the Stratagy tutorial is completed successfully, the mailbox is ready for use.

Benefit(s)

The User Tutorial walks the new Stratagy user through the steps of customizing their mailbox, thereby reducing training time for new Stratagy users.

Varied Sampling Rates

System Availability: Stratagy ES

The system can be programmed to play different types of recordings at different "sampling rates." In general, the higher the sampling rate, the more accurate the digital recording of the incoming sound, and the better the reproduction. However, using a high sampling rate means that more disk space is taken by a given recording.

Since companies wish to present the best possible "appearance" to their callers, and greetings usually represent only a small fraction of the system's disk space, Stratagy ES is configured to record greetings at a higher sampling rate of 64Kbps (kilobits per second) than regular voice messages (32Kbps). The sampling rate for greetings and for voice message recordings can, however, be individually set by the System Administrator during system installation and configuration.

Note   Stratagy IVP8 R2, LVMU1A, and GVPH do not support this feature. The IVP8 R2 sampling rates are fixed at 64 kbps for system prompts and greetings, and 32 kbps for voice message recordings. The LVMU and GVPH use a custom 13K sampling rate.

Voice Forms

System Availability: All systems

The system can be configured to prompt a caller with a series of questions and the voice responses concatenated and stored as a single message in the associated mailbox. Questions are recorded as greetings, either in that mailbox or in others. The "Q" token is used to implement this feature (for more details see Token Programming in the *Stratagy Installation and Maintenance Manual* or the *Stratagy ES Installation and Maintenance Manual*).

Benefit(s)

Voice Forms are an excellent way to collect information from a caller. Questions could be "What is your name?", "What is your address?", and "What is your phone number?" In response, a single message containing the responses are stored, e.g., "John Smith, 123 Apple Drive, Irvine, California 92718, (949) 555-1234."

Telephone System Integration

Stratagy can be configured to work with various telephone system integrations.

In-band Integration

System Availability: Stratagy IVP8 R2; Stratagy ES48, ES96R2

Many telephone systems (PBXs) can be configured to provide information to Stratagy about an incoming call by preceding it with one or more DTMF digits. Stratagy can then be configured to receive and interpret these DTMF strings. These DTMF strings are known as In-band Integration or In-band Signaling.

Data is passed in both directions: the PBX informs the Automated Attendant/Stratagy system about each incoming call, and the Stratagy sends instructions to the PBX to turn message waiting lights on or off, as appropriate.

Benefit(s)

- Enables users to see when they have messages in their mailbox by lighting the message waiting light.
- Provides joint handling of call transfers by the telephone system and Stratagy, enabling callers to go directly to the user's mailbox and personal greeting when busy or RNA.
- Processes calls faster so that the Stratagy voice ports can be used for answering additional calls rather than monitoring transfers.

CIX Proprietary Integration

System Availability: Stratagy ES

TPI is a method used by the Stratagy ES to communicate more completely and effectively with the Strata CIX telephone system. Stratagy ES systems use this integration to support the soft key control of voice mail feature.

Note See the *Strata CIX IPT/DKT Telephone User Guide* for information on these phone features.

SMDI Integration

System Availability: All systems

SMDI integration is available on all Stratagy systems. SMDI is an industry standard interconnection made via an RS-232 data connection that passes the integration information "packets," dependent upon the PBX capabilities. Similar to Inband Integration, data is passed between the PBX and the Stratagy system about each incoming call, and Stratagy sends instructions to the PBX to turn message waiting lights on or off, as appropriate.

In addition, all Stratagy systems use SMDI to support the Call Record feature with the Strata CIX.

Benefit(s)

SMDI integration offers improved call handling since the Stratagy system is informed about each call as it arrives, and immediately performs the appropriate call processing. SMDI is also faster and more efficient than DTMF inband integration.

CIX Backplane Integration

The LVMU1A and GVPH use a proprietary integration with the backplane of the host CIX system. This integration does not require any additional hardware (BSIS) or programming. This gives the LVMU and GVPH the ability of providing advanced inter-operability with the CIX without additional cost.

Stratagy ES Feature Groups 3

Feature Groups expand the standard voice processing features of the Stratagy product family by providing such advanced feature functionality as Fax and Unified Messaging. Offered exclusively for the Stratagy iES16, ES48, and ES96R2, Feature Groups are mainly comprised of software components. However in the Stratagy ES, some Feature Groups require both software and hardware.

A majority of the Feature Groups are implemented using an advanced technology, such as ASR and TTS.

This chapter includes some detail on the technology of Feature Groups, as well as a description of each of the Feature Groups.

Note Unless otherwise noted, all references to Stratagy ES in this chapter refer to all Stratagy ES products—iES16, ES48, and ES96R2.

Enabling Feature Groups

Feature Groups are enabled on the Stratagy ES system by:

- Placing an order for the desired feature group with an Authorized TSD Dealer.
- Loading Feature Group software
- Remote enabling of the Stratagy Activation Module (SAM) for the desired feature by Toshiba

It is not necessary for the Feature Group software to be loaded prior to enabling the feature in the SAM.

Feature Group Software

The software for all released Stratagy ES Feature Groups can be found on the Stratagy ES System Software CD-ROM that is shipped with each Stratagy ES system. Following the instructions in the *Stratagy ES Installation and Maintenance Manual*, technicians can upload the necessary software. Even though the software may be loaded on the system, the specific Feature Group is not operational until the SAM has been enabled for the feature.

SoftSAM

The SoftSAM is a software-based Stratagy Activation Module (SAM).

The Stratagy ES SoftSAM provides an efficient means for enabling Feature Groups. A coded packet that is unique to the specific system is relayed back to Toshiba TSD along with the target system's remote telephone number and an order for the desired feature. Toshiba personnel then call into the system and update the SoftSAM with new data, unlocking the feature for use.

Fax

With the Fax feature group, the Stratagy ES system serves as the central hub for fax messaging and transmission. To use fax, the fax feature must be electronically activated by Toshiba using the SoftSAM.

To use fax with the Stratagy ES:

*   Dialogic D/41JCT-LS or D/120JCT-LS voice board must be installed.
*   The fax feature must be electronically activated by Toshiba using the SAM installed on the parallel port of the Stratagy ES.

To send a fax from a user's computer using the Stratagy ES Fax resources, the Custom Fax Printer Driver must be installed on the client computer.

The iES16 will support two channels of fax for each active group of eight voice ports; i.e., a four-port iES16 supports two channels of fax while a 12 or 16-port system supports four channels of fax. If the Fax Feature Group is enabled on the iES16, the additional fax channels are automatically included when the voice port capacity is upgraded.

> **Important!**
>
> *   *Because of the DSP technology that provides fax services to the Stratagy iES16, fax channels are used exclusively by the voice ports they support. For example, the first two fax channels enabled for ports 1~8 cannot be shared by ports. 9~16.*
> *   *The D/120JCT-LS board cannot support both fax and Automatic Speech Recognition (ASR). Only one or the other Feature Group is supported. The D/41JCT-LS can support both applications.*

SoftFax

With Stratagy ES Release 4.6 software and higher, the D/4PCIU-F, D/41JCT-LS and D/120JCT-LS boards provide the resources necessary for fax applications. No other faxboard is required. Both boards provide four fax channels. On the D/120JCT-LS board the first two fax channels support the first eight voice ports. The second two channels support the last four voice ports.

Fax Mail

With Fax Mail, the system accepts a fax document as a mailbox message. Just as with the voice recording, the fax is "recorded" and stored in the user's mailbox on the system's hard drive. A typical page of fax text is equal to approximately 15 seconds of voice storage. When the user picks up messages, those containing faxes are identified.

Users can retrieve the fax documents in one of two ways: Fax Message Immediate Retrieval or Fax Message Remote Retrieval. Either a specific fax message or all fax messages currently in the mailbox, can be sent to a defined fax machine (Fax Back), sent immediately to the user if calling from a fax machine (Fax on Demand), or automatically faxed to a predefined fax machine upon receipt (AutoFax Print).

When coupled with the Unified Messaging Feature Group, the fax messages can appear in the user's e-mail inbox.

Benefit(s)

This feature is particularly useful for business people who travel frequently. Callers wishing to send faxes "upload" the fax messages into the Stratagy ES system. When the business person picks up messages, any fax messages can be retransmitted to a fax device such as a portable computer or a hotel fax machine. The users greeting should provide the caller with instructions for transmitting a fax.

Immediate Retrieval (Local)

To immediately retrieve a fax message, the user must call from a fax machine with a handset (or other device capable of receiving a fax where prompts can be heard and DTMF tones transmitted). The user reviews the message, is prompted that the message contains a fax, and the number of pages. The user is prompted to press the Start key on the fax machine, and Stratagy ES begins transmitting the fax over the connection. When the fax has been transmitted, the call is disconnected.

Remote Retrieval

To retrieve a fax message remotely, the user can call from any DTMF telephone. The user reviews the message, is prompted that the message contains a fax, and the number of pages. The system prompts the user to enter the telephone number of a fax machine (e.g., a machine made available by a hotel) and the fax message is queued for immediate delivery.

A number of fax messages can be queued during one call. Each message is sent separately to the indicated telephone number(s), with automatic retry if the destination fax machine is busy or does not answer.

Fax On Demand/Fax Back

Similar to Audiotex, Fax on Demand and Fax Back enable a caller to receive printed information (e.g., product brochures, price lists, etc.) from the Stratagy ES system. The transmission can be done over the same telephone call ("single-call"), or the fax can be queued for later transmission (a "two-call" arrangement). Multiple-fax documents can be transmitted in a single-fax telephone call, depending upon the system's programming.

Stratagy ES can be programmed to allow callers to choose the documents to be faxed via several different applications, e.g., single digit menus or database reference. Fax on Demand and Fax Back can be used separately or in conjunction with each other.

Benefit(s)

• Enables a caller to retrieve automatically "printed" information from the Stratagy ES system.
• The availability of fax documents complements informational audio recordings.
• Provides the customer with the best method for their application—"one" or "two-call" method.

Fax Broadcast

A custom IVR application enabling single or multiple fax documents to be transmitted to a single or multiple list of clients that are stored in a database.

Benefit(s)

Provides a method to transmit fax documents such as form letters, product literature and promotions, etc. to a list of customers.

Client Fax Printer Driver

Any documents on a user's computer that can be printed using the Microsoft-based print utility can also be faxed.

With the aid of the custom Stratagy ES Client Fax Printer Driver, when a user selects 'Print' and chooses the Stratagy ES Fax as the printer device, the document is sent through the LAN to the Stratagy ES. Stratagy ES allocates a voice port, applies fax resources and sends the document like a fax to the destination fax machine. Users can also send documents into other users' mailboxes where they are stored as fax messages. In addition, a customizable cover page can be added that can include the name and number of the destination, as well as an editable comments field.

Direct Fax Message

Enables callers calling from fax machines to fax documents directly into user's mailboxes. Callers can record a comment as a preface to the fax message.

Unified Messaging with Fax

When bundled with the Fax Feature Group, UM offers the user an efficient and easy way to manage all types of messages, saving time and trouble. Fax messages that arrive in a user's mailbox display as incoming Stratagy ES messages in the user's e-mail client inbox.

By using the Toshiba proprietary Outlook integration for UM, the user can click on the message to display a custom e-mail form. If a fax is attached to the message, the form displays a fax button. Clicking on the fax button launches any program designated by Windows for loading Tagged Image File Format (TIFF), a standard image file format, and the fax document displays on the desktop. Any fax viewer software that is compatible with TIFF will work.

See "Unified Messaging (UM)" on page 45 for details on using the UM with the Fax.

Automatic Speech Recognition (ASR)

Note Currently not available with iES16.

ASR is the term for recognizing human speech. It is used in applications where the information collected from the caller is difficult to enter using a touchtone phone, or where the customer wants to create a more natural, user-friendly image with automation.

ASR AA Feature Group

The ASR AA Feature Group is a host-based application, meaning that it uses the native CPU of the Stratagy ES to provide the necessary processing power. No additional speech-related hardware is required. A maximum of eight channels of ASR AA can be invoked simultaneously.

The ASR AA Feature Group supports up to 250 names in its directory, and comes with a User Login and Quick Message feature. The ASR AA Feature Group enables the user to call Stratagy ES and:

* speak a user's name to reach an extension
* speak a command to log in to his/her mailbox
* say "send message" or "quick message" to send a message to a user

The ASR AA Feature Group includes two channels of ASR resources. Additional ASR resources can be purchased in two channel increments (up to a maximum of eight channels).

Important! *Ports that are configured for ASR AA can only accept inbound voice mail integration using Simplified Message Desk Interface (SMDI). DTMF in-band integration is not supported on these ports. If DTMF integration is necessary, additional ports not configured for ASR AA are required.*

The following requirements apply for an ASR AA system:
* the SAM must be electronically upgraded by Toshiba for the ASR AA Feature Group (Part No. SES-2CH-ASR-AA)
* Nuance Recognizer 9.0 software and Stratagy ES ASR AA application (This software is available for download on FYI)
* D/4PCIU-S, D/41JCT-LS or D/120JCT-LS voice board from TSD

Important! *The D/120JCT-LS board is manufactured to not support both fax and Automatic Speech Recognition (ASR). Only one or the other Feature Group is supported. The D/41JCT-LS can support both applications.*

Unified Messaging (UM)

Stratagy ES provides UM as an optional feature group. UM enables users to retrieve their voice, fax and e-mail messages from within their e-mail client inbox screen.

To use UM with the Stratagy ES:

- The SAM must be electronically upgraded by Toshiba for the Unified Messaging Feature Group (Part No. SES-FG-UM).

  - The UM Feature Group includes five free UM client seats.

  - Additional UM client seats offered in increments of 10, 25 or 50 (SES-UM-10-SEATS, SES-UM-25-SEATS or SES-UM-50-SEATS) or unlimited (SES-UM-UNLIMIT). Each seat allows Unified Messaging privileges for one mailbox. These seats cannot be shared, which means each seat is permanently assigned to a mailbox. So if 25 users want UM privileges, 25 seats will be required.

- To include the fax features with the UM and gain complete UM functionality, the Fax Feature Group must be enabled on the system and the applicable supporting hardware installed.

- To support Toshiba's Microsoft Outlook Integration solution for Unified Messaging, a custom outlook form designed by Toshiba must be installed on every client computer desiring Unified Messaging privileges. This software can be found on the Stratagy ES software CD-ROM that ships with each system.

- To support Stratagy View for Unified Messaging, a customized web server must be installed on either the host MAS/MicroMAS or Stratagy ES server, or on a separate networked server for support of Stratagy iES16.

IMAP4 Synchronization

New with Stratagy ES Release 4.6 software and higher is a message synchronization mechanism using the Internet Mail Access Protocol - version 4 (IMAP4). With IMAP4 synchronization Stratagy ES can work in collaboration with an IMAP4 compatible e-mail server to provide the following abilities:

- Messages deleted from a Unified Messaging enabled voice mailbox via the telephone are deleted from the user's e-mail inbox.

- Messages listened to, but not deleted via the telephone user interface are marked as "read" in the user's e-mail inbox.

- Messages deleted from the user's e-mail inbox can be deleted or moved to a selected Personal message folder within Stratagy. This function is configurable on a mailbox-by-mailbox basis with Stratagy.

- Voice and fax message sent by Stratagy ES to an e-mail server can be marked for return receipt. If the e-mail server supports Message Disposition Notification (MDN), when a user accesses a Stratagy ES voice or fax message from their e-mail inbox, a notification is sent back to the Stratagy ES. This notification can signal Stratagy to move the corroborating message to the Saved or Personal Message Folder within the user's mailbox.

The IMAP synchronization is not dependent on which UM solution is chosen, e.g. Stratagy View, Microsoft Outlook Integration, or Internet Protocol integration. IMAP synchronization is available and suggested for use with all of these solutions.

Important! *The Stratagy ES IMAP4 synchronization works on industry standard. Toshiba cannot be responsible for the behavior of any e-mail server when IMAP4 is invoked. Some of the above listed features may not behave as described. It is recommended you consult the System Administrator of the e-mail server for IMAP4 behavior.*

Stratagy View

Stratagy View (SV) is a web enabled application that uses a web server between an individual user's desktop and the Stratagy ES software. It offers a web browser based experience for accessing voice and fax messages. SV emulates Toshiba's original Outlook Integration voice mail solution's benefit of not sending voice message files to the host email server.

Powered by Apache® Tomcat, an open source web server product developed by the Tomcat Software Foundation, Stratagy View can be installed on a host MAS or on a separate server on the network to support a Stratagy iES16 or in cases where the MAS hardware resources are already being maximized by the other various applications, i.e. ACD, SES, Insight, etc. available on the MAS. Stratagy ES-enabled MAS and MicroMAS systems must be upgraded to Release 6.0.0.3 to deploy Stratagy View. Stratagy iES16 and Stratagy ES standalone systems must be upgraded to Release 4.8 in order to support Stratagy View.

Stratagy View's message player is supported on Microsoft Windows XP SP2 (or higher) and Apple Mac OS version 10.5.4 (or higher) desktop computers and is compatible with Internet Explorer 6.0, Firefox 1.5, and Apple Safari 3.2.1. web browsers.

When a new message arrives in your Stratagy ES voice mailbox, the voicemail system sends an email message embedded with a web link to your email inbox (as shown below).
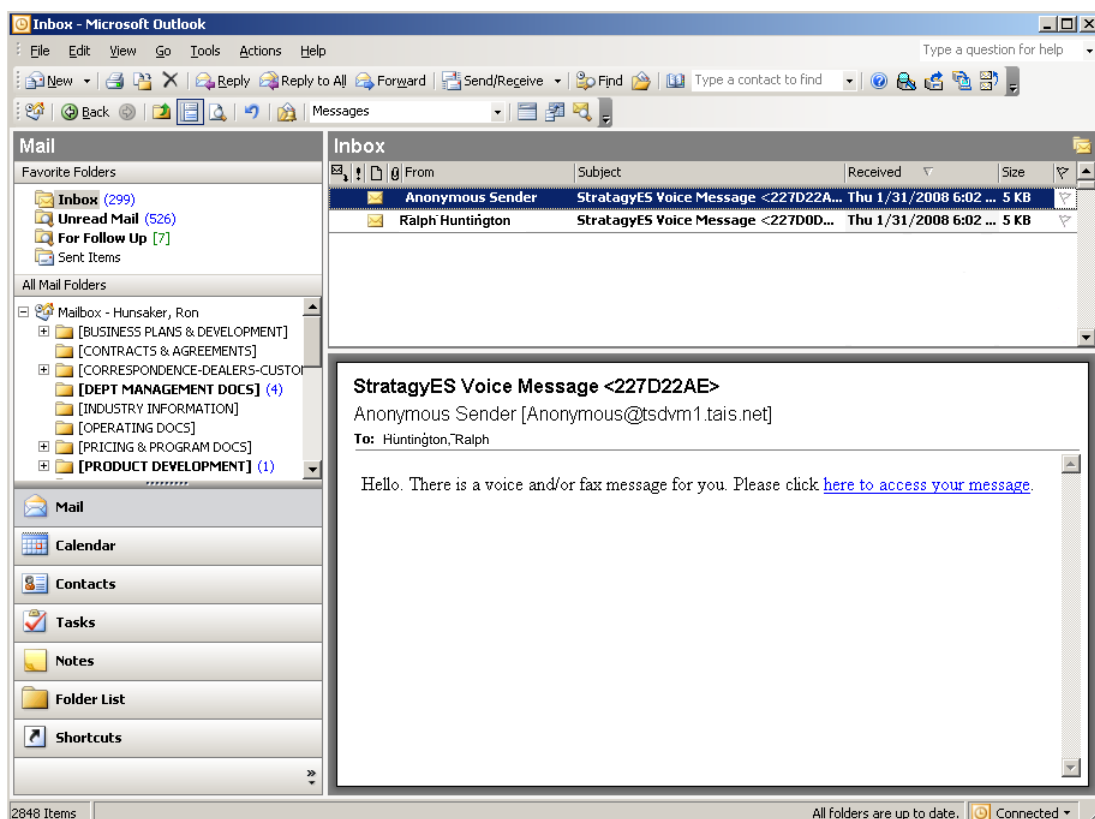
By clicking on the link "here to access your message" users are immediately routed to the SV web server.

After successfully entering your personal credentials access a mailbox, users are presented with a web page embedded with a Java based multimedia player and the message immediately begins playing. If a user had checked the 'Keep me signed in' box in the log in screen, each time the emailed message link is activated, the user is automatically sent to the SV window and the message immediately begins to play. The player also includes additional controls to rewind, fast forward, pause, and stop message playback.

In addition, there are controls to create a Voice Reply or Voice Forward. These options allow the user to forward a voice or fax message to another voice mail user or to reply to a voice mail user.
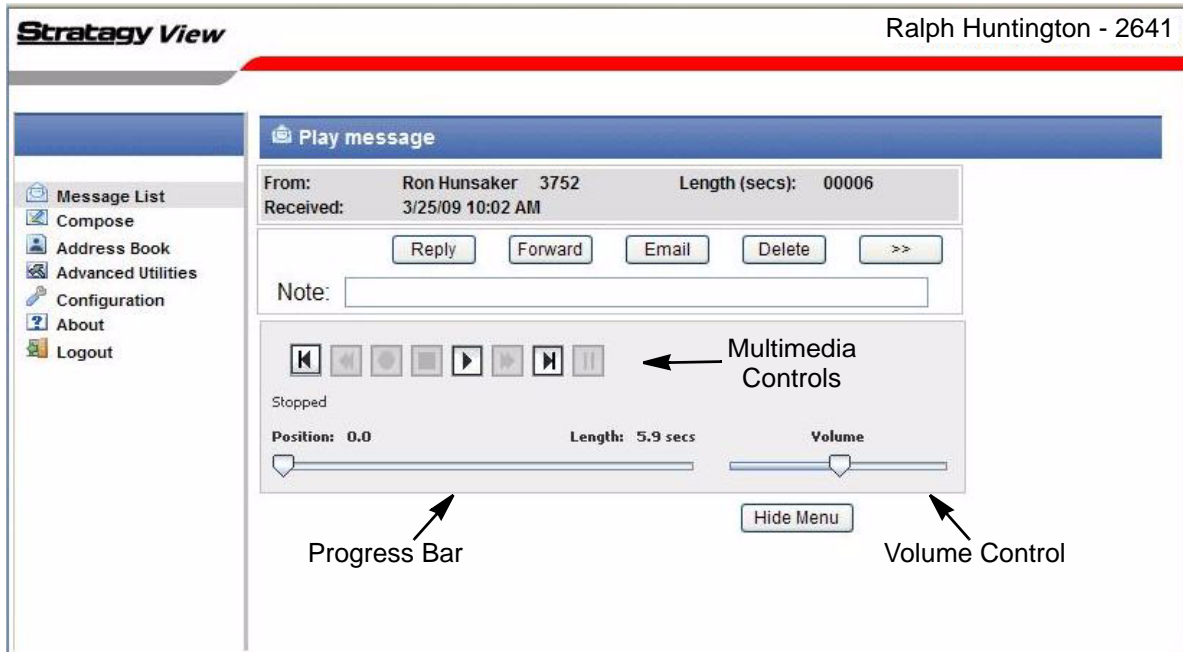

If a fax message is included in the message, a Fax button will appear in the player window. When the fax button is clicked, then SV will pass the TIFF or PDF file to whatever program on the individual's PC or Mac® that has been configured for viewing those file types.

The user also has the ability to configure their client to play messages over their desktop speakers, or over a specific telephone.

Message List

User's can view a listing of all of the messages residing in their mailbox by clicking on the Message List option on the left pane . The Message List shows who the messages were from (if known), the date and time of arrival, and the length of the message in seconds (shown below).
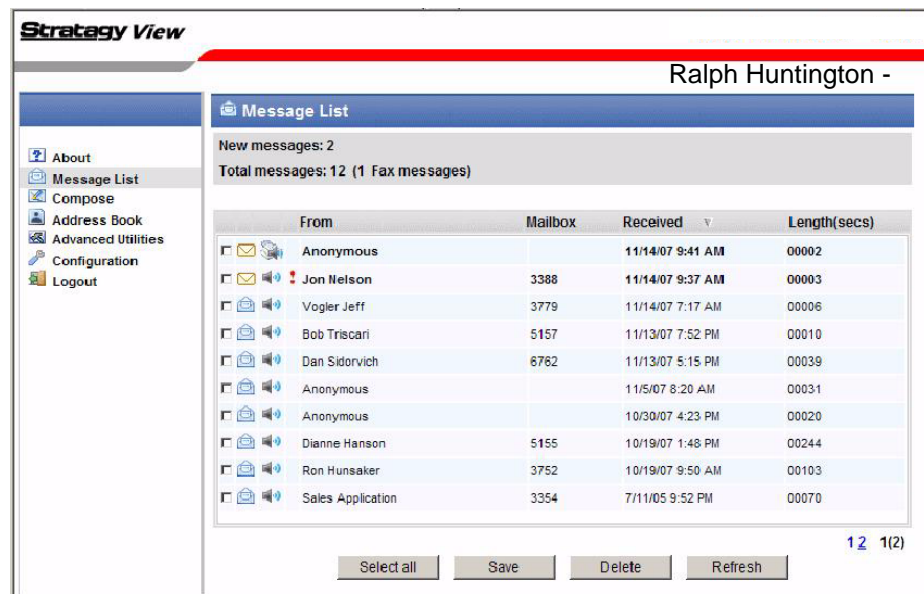
Microsoft Outlook Integration

Stratagy ES has a proprietary integration designed to work with Microsoft Outlook® XP and 2003. With this proprietary integration, Stratagy ES voice and fax messages are displayed along with e-mail messages in the Outlook Inbox screen.

Note   Though there is an Outlook integration for Stratagy ES UM, this does not imply that Microsoft Exchange must be the e-mail server. Stratagy ES works with any standards compliant e-mail server. In fact, Outlook itself works with any standards compliant e-mail server.

When an e-mail message is selected, the operation is typical to any e-mail reader. The user can see from the Inbox what messages have arrived, what type they are, who sent them, when they were sent, and how long they are.

When a voice message is selected a Toshiba designed edit screen is automatically presented that enables voice playback through the multimedia speakers of the user's PC, or if desired, through the user's telephone.

When a fax message is selected, the preloaded fax viewer software is launched with the fax image loaded. The fax viewer software can be any Tagged Image File Format (TIFF) compatible software of the user's choice.

This integration does not require Microsoft Exchange as the e-mail server. Any e-mail server/service that is compatible with the Internet Message Access Protocol (IMAP), Simple Message Transport Protocol (SMTP), Internet Mail Access Protocol (IMAP) and Post Office Protocol version 3 (POP3) Internet protocols is supported.

Important!   *Stratagy ES proprietary Microsoft Outlook integration is only supported on Windows 98 or higher, and Outlook 98, Outlook 2000, XP, 2003.*

Internet Protocol Integration

The Stratagy ES sends voice and fax messages to any e-mail service that supports the SMTP and POP3 Internet protocols. With this integration any e-mail client that supports SMTP/POP3 (e.g., Eudora Pro, Netscape Messenger) receives Stratagy ES voice and fax messages as e-mail messages with either audio (voice messages) and image (fax messages) file attachments (shown below). Though not as efficient as the Outlook integration, the IP integration provides limited Unified Messaging capabilities for users who want to use an e-mail client other than Outlook.
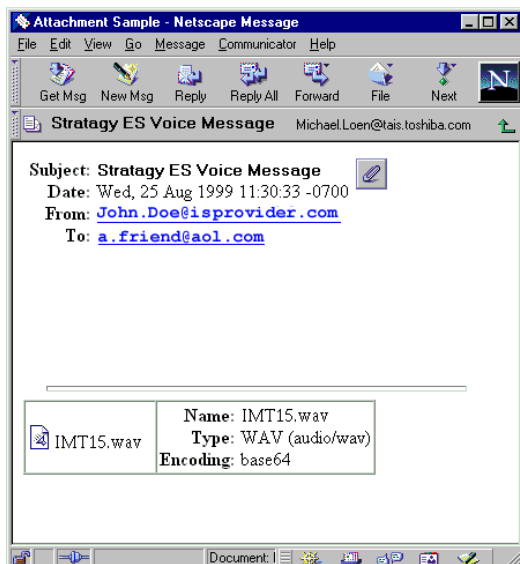
Integration Differences

Some of the more substantial differences between the Microsoft Outlook and Internet Protocol integrations are:

Note   IMAP4 synchronization does not impact these differences.

Table 5   Integration Differences

Stratagy View	Outlook Integration	Internet Protocol Integration
A reference message is sent to the email server with an embedded web link in the message body.	Only a reference of a message is sent to the e-mail server by the Stratagy ES. The actual message is sent directly to the client PC.	The entire message is sent to the e-mail server by the Stratagy ES.
Message selection and accessing the embedded web link launches Stratagy View player window and message begins to play.	Message selection launches Stratagy ES proprietary Form.	Message selection launches the e-mail client? standard message screen with an audio (voice message) and/or image (fax) file attachment.
Stratagy View player provides control keys for voice message playback.	Provides embedded control keys for voice message playback.	A separate multimedia program must be launched to play the voice message.
Messages can optionally be played over a telephone.	Messages can optionally be played over a telephone.	Messages can only be played over multimedia speakers.
Provides an Address Book that synchronizes with Stratagy ES mailbox directory.	Provides an Address Book that synchronizes with Stratagy ES mailbox directory.	Individual user must manually add addresses to an Address Book.
Message List window allows view of all voice and fax messages in the mailbox.	n/a	n/a

Text-To-Speech (TTS)

The Stratagy ES provides TTS as an optional feature group. TTS converts text to computer-generated speech output. It is used in applications where the customer either does not want to use the disk space or does not have the required disk space to record every necessary variable in the database.

The Stratagy ES Text To Speech/Email Feature Group employs the ETI-Eloquence TTS system. ETI-Eloquence™ is a Speech Application Programming Interface (SAPI) compliant system from ScanSoft®.

TTS/Email Feature Group

The TTS/Email Feature Group enables e-mail messages to be read back to users via the Telephone User Interface (TUI). Users can also forward and reply to e-mail messages that have been read to them via this TTS/Email feature. The TTS/Email Feature Group requires the Stratagy ES to be equipped with the UM Feature Group.

Note   The TTS/Email Feature Group can be enabled on Stratagy iES16 system running Release 4 software or higher.

With the TTS/Email Feature Group, individual mailbox users that have e-mail accounts can have their e-mail messages read to them. Each mailbox can be configured independently to query any e-mail service compatible with IMAP4/SMTP/POP3 for messages. If messages are present, Stratagy ES announces how many e-mail messages there are available to be read.

While listening to a TTS message, users can forward or reply to an e-mail message:

- Forwarding TTS messages – By pressing a specified DTMF digit, an e-mail message can be forwarded to other Stratagy ES users that have UM enabled for their mailbox. A forwarding comment can also be recorded and attached as a WAV file to the original e-mail message. Receiving mailboxes must have UM enabled, so that Stratagy ES can ascertain the destination e-mail address.

- Replying to TTS messages – A reply can be sent in the form of an e-mail message with a WAV file attachment. Stratagy ES records the WAV file in an industry standard format so it can be listened to on any multimedia equipped PC without requiring any special drivers.

This gives users that do not have immediate access to their local network, the Internet, or even a computer, the ability to check for important e-mail messages from anywhere in the world. All that is required is a telephone.

TTS/Email Configuration

TTS/Email Feature Group is a host-based application that uses the native CPU of the Stratagy ES to provide the processing power required, no additional speech-related hardware is required. A maximum of eight channels of TTS can be invoked simultaneously.

To enable TTS on the Stratagy ES48, and ES96R2:

- the ETI–Eloquence software must be installed.

- the SoftSAM must be activated for the feature by placing an order for the TTS Feature Group (Part No. SES-FG-TTS-ETI). Includes first two channels.

Note The ETI-Eloquence software comes already installed on all iES16 systems that ship with Release 4 software.

Interactive Voice Response (IVR)

The IVR Feature Group enables Toshiba Authorized Software Developers to create custom IVR applications. The developers work directly with the customers to determine the customer's exact IVR application needs.

An Interactive Voice Response (IVR) application can relay specific computer database information to callers over the telephone based on an individual's unique input from a touchtone telephone dial pad. Database information can reside on the IVR system's hard drive or in an external database. The Fax, ASR, and Text-To-Speech (TTS) Feature Groups are options.

A Stratagy ES IVR application script is customized so that callers can get the information they need anytime that data is available. Information received from the database, can be spoken back to the caller in a number of different ways: date, time, dollars and cents, numbers or predetermined phrases.

Note Though the Stratagy IVP8 R2 do not offer the IVR Feature Group, both systems are capable of limited IVR applications by the use of the Token Programming Language.

Specifications

4

This chapter provides details of the physical and functional characteristics of the Stratagy system equipment.

GVPH

Configuration	Dimensions	Weight	Power Requirements
• Four ports • Storage capacity of 40 hours • Integrated only with Strata CIX40 telephone system • On board remote modem (33.6 Kbps/V.34) • One COM Port	Height: 3.6" Width: 0.75" Depth: 7.0"	4.1 oz. (0.26 lbs.)	Uses Strata CIX power supply

LVMU1A

Configuration	Dimensions	Weight	Power Requirements
• Two 8-ports (Strata CIX Licensing) • Storage capacity of 40 hours • Integrated only with Strata CIX100, 200 and 670 telephone systems • On board remote modem (33.6 Kbps/V.34) • One COM Port	Height: 7.5" Width: 1.0" Depth: 5.5"	5.8 oz. (0.36 lbs.)	Uses Strata CIX power supply

Stratagy IVP8 R2

Configuration	Dimensions	Weight	Power Requirements
• Two~eight ports (upgrades performed electronically) • Storage capacity of approx. 15 hours • Supports only Fax Tone Detection feature • Integrated board for Strata CIX telephone system • Internal (soft) Modem (2400 baud) • Two COM Ports (RS-232)	Height: 7.5" Width: 1.3" Depth: 6.0"	13 oz. (.8 lbs.)	Uses Strata CIX power supply

Stratagy iES16

Configuration	Dimensions	Weight	Power Requirements
• Stratagy iES16: 4~16 ports (upgrades performed electronically) • Integrated board for Strata CIX telephone system • Storage capacity of approx 100 hours (iES16) • Internal (soft) Modem • One COM Port (RS-232) • One 10/100BaseT Network Interface Connection	Height: 7.5" Width: 1.3" Depth: 6.0"	13 oz. (.8 lbs.)	Uses Strata CIX power supply

Stratagy ES48, and ES96R2

Configuration[1]	Dimensions	Weight	Power Requirements[2]
Stratagy ES48	7.75" W 17" H 18" D	35 lbs.	115 VAC at 6 amps (50/60 Hz) 230 VAC at 3.5 amps (50/60 Hz)
Stratagy ES96R2	19" W 7" H 18.9" D	26.4 lbs.	
1. See "Stratagy ES48, ES96R2 Standard Components" on page 9 for a complete listing of base system components.			
2. A Toshiba Stratagy ES-approved UPS is required on all Stratagy ES standalone systems.			

Stratagy IVP8 R2 Optional Equipment

System	Options
Stratagy IVP8 R2	Cable for connection of IBM-compatible PC (SG-ADMCBL) 30-hours of message storage provided by flash memory upgrade (SG-IVP8-R2-512M)
All	ONEAC Power Conditioner and Uninterruptible Power Supply.
[1] Stratagy Admin and Stratagy IVP8 R2 can communicate at up to 9600 baud. If 9600 baud communication is desired, use the fax/modem (SG-FMOD) or a 9600 baud Hayes-compatible modem. (The SG-FMOD has been tested by Toshiba for consistent operation. Use of other modem models cannot be guaranteed for trouble-free operation.)	

Stratagy ES Optional Equipment

- High-resolution color VGA monitor
- Voice Interface Boards:
    - D/120JCT-LS (12 ports) – Part No. SES-D/120JCT-LS
    - D/41JCT-LS (4 ports) – Part No. SES-D/41JCT-LS
    - D/4PCIUF – Part No. SYS-D4PCIUF
    - D/4PCIUS - Part No. SYS-D4PCIUS
- Additional System Resource Components:
    - 40GB tape drive – Part Nos. SYS-TAPEDRIVE-2 for Stratagy ES48, SYS-TAPEDRIVE-3 for Stratagy ES 96R2.
    - Serial port boards
- ONEAC Power Conditioner and Uninterruptible Power Supply

ONEAC 400 UPS

- Nominal input voltage: 120VAC, 60 Hz and 230VAC, 50/60 Hz
- Surge voltage withstand capability: ANSI/IEEE C62.41, Category A&B 6kV/200 and 500 Amp, 100 kHz ringwave
- Surge voltage let-through (max): less than 10V Normal mode (L-N), less than 0.5 V Common mode (N-G) when subjected to 6kV ANSI/IEEE C62.41 Cat. A
- Normal and common mode clamping response time: Instantaneous
- Transfer time (typical/max): <3.0/3.5 milliseconds
- On-battery output voltage: sine wave
- Load power factor range (crest factor): UPS .65 to 1.0 (3)
- Batteries: four 6V, 4AH, sealed, maintenance-free lead acid with a 3~6 year typical lifetime
- Recharge time to 60% available capacity: 4 hours per battery cabinet. All units have temperature sensitive chargers and provide thermal isolation for battery pack.
- Maximum capacity (volt-amps, watts): 400, 280

Table 6   Stratagy Hardware Environmental and Electrical Specification Summary

Environmental Conditions	Operating Temperature	39.2^{o}F~104°F (4°C~40°C)
	Storage Temperature	104°F~140°F (40°C~60°C)
	Operating Humidity	20%~80% (non-condensing)
Electrical Requirements (AC Input)	Stratagy Enterprise Server (ES)	115VAC, at 6 amps (50/60 Hz) – standard 230VAC at 3.5 amps (50/60 Hz)– switch configured
	Optional Monitor	115VAC at 0.5 amps (50/60 Hz)
	Provide host system with 15A circuit breaker and dedicated circuit.	
Heat Dissipation	Stratagy Enterprise Server (ES)	Maximum 200 watts, 685 BTU per hour
	Optional Monitor	Maximum 50 watts, 200 BTU per hour
Analog Interface	Telco types	Loop Start, OPX, T1
	Connection	Single line, RJ14C and RJ11C jacks; RJ48C (T1)
	Impedance	600 ohm nominal
	Frequency response	300~3200 Hz
	Ring detect	40~130 Vrms, 15.3~68.0 Hz
	Loop current range	20~120 mA polarity insensitive
	Transfer signaling	Hookflash
	Input level	-30 dB~-3 dB
	Output level	-30 dB~-3 dB

	DTMF receive
	    Minimum tone duration
	    Minimum tone detect
	    Twist range
		16 tones (0~9, ∗, #, A~D)
		
		    45 ms
		    −29 dB/minimum
		    ±10 dB

	DTMF transmit
	    Minimum tone duration
	    Transmit level
	    Twist range
		16 tones (0~9, ∗, #, A~D)
		
		    50 ms
		    −7 dBm nominal
		    2~3 dB

	Progress Tones	Standard and proprietary, in 350~640 Hz frequency range
	Frequency response	200~300 Hz ± 3 dB/minimum
	Speech Parameters	−13 dB/minimum average transmit level for a −32 dBm receive level
	Voice Coding Scheme	64 Kbs u-Law PCM, 32 Kbs ADPCM compression

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