Stratagy®

Voice Processing Systems

Stratagy Flash, IVP8
and
Stratagy iES32, ES4, ES80,
ES96, ES96R

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/Locator.htm 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 Flash: EBZUSA-25267-VM-T
  Stratagy IVP8, Stratagy iES32, Stratagy ES4, ES80, ES96, ES96R: Tested to comply with FCC standards

- **Ringer equivalence number:**
  ProLine/2V, Dialog/4, D/160SC-LS: 0.1
  D/41ESC: 02
  Stratagy Flash, Stratagy IVP8: 0.6B.
  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
  D/160SC-LS voice board has a DB37 connection.
  D/240SC-T1, D/240PCI-T1, and D/480SC-2T1 voice boards have RJ48C jacks.

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.

This system is listed with Underwriters Laboratory.

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Version A.1, January 2003

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Toshiba America Information Systems, Inc.
Telecommunication Systems Division
9740 Irvine Boulevard
Irvine, California 92618-1697
United States of America

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Toshiba America Information Systems, Inc.
Telecommunication Systems Division
9740 Irvine Boulevard
Irvine, California 92618-1697
United States of America

TSD 050903

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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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 Server, 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 the CD-ROM, 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.

All Stratagy Products

- Stratagy Library CD-ROM

Stratagy Flash, IVP8

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

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 iES32, ES4, ES80, ES96, and ES96R) is included in the Stratagy ES container.

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.

Stratagy eBrochure and Advisor CD-ROM

Packaged with every Stratagy shipped is a CD-ROM containing *Stratagy eBrochure,* and an end-user tutorial, *Stratagy Advisor.* Additional copies of this CD-ROM can be purchased from your Dealer Sales Representative.

eBrochure

The *eBrochure* provides a description of each of the Stratagy products along with audio supplemented mini-demonstrations illustrating the capabilities of Stratagy voice processing. Also included on the CD-ROM is an electronic copy of this *Stratagy General Description*.

Advisor

The *Stratagy Advisor* is an end-user tutorial that can be used as a learning tool for the new user or as a refresher course for existing Stratagy users.

The *Stratagy Advisor* program covers general topics—such as play messages, send messages, etc.—that are applicable to all models of Stratagy systems. The Stratagy iES32 and Stratagy ES tutorials are separated into two sections: the Telephone User Interface (TUI) and Unified Messaging. All presentations interact with the viewer in order to provide a better understanding of how Stratagy works.

Overview

1

This chapter describes the main components of Stratagy and provides general descriptions of each of the Stratagy systems (see Table 1 on page 2). Unless noted otherwise in this book, references to Stratagy apply to all product lines and models.

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 (shown at right) 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 CTX family of 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 Flash runs on a solid state messaging platform.
*   Stratagy IVP8 is deployed on a circuit card, designed to be installed in a Strata CTX card slot.
*   Stratagy Enterprise Server (ES)
    *   Integrated Enterprise Server (iES32) is deployed on a circuit card and designed exclusively to install in a card slot of the Strata CTX.
    *   ES4, ES80, ES96, and ES96R are available as computer platforms ranging in size from a four-port desktop to a 96-port capacity server tower.

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

Stratagy Flash and IVP8 share many of the same features and capabilities while the Stratagy ES product family run the same Stratagy ES software and are capable of more advanced features and capabilities.

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 CTX.

Table 1   Stratagy Models and Key Feature Comparison

Stratagy		Flash	IVP8	iES32	ES4	ES80	ES96	ES96R
Ports	Minimum	2	2	4	2	4	4	4
	Maximum	4	8	32	4	80	96	96
Port Upgrade Option		Electronic Delivery Method			Intel® Voice Board Hardware			
Message Storage (approx. hours)		4[1]	4[1]	600	900	900	900	900
Storage Media		Flash	Flash	HD	HD	HD	HD	HD
Modem (Remote Maintenance)		O	S	S	O	S	S	S
CTX Integration	Call Record	S	S	S	S	S	S	S
	Voice Mail Softkeys			S	S	S	S	S
Network Interface				S	S	S	S	S
Stratagy ES Feature Groups								
Unified Messaging (UM)				O	O	O	O	O
Text-to-Speech (TTS)/EMail				O[2]	O	O	O	O
Automatic Speech Recognition (ASR) Automated Attendant (AA)				(future release)	O	O	O	O
Fax Server (Fax Mail, etc.)				O		O	O	O
Recommended for use with		Strata CTX100						
					Strata CTX670			
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.						
Note This chart serves as a quick reference for Stratagy models and key feature comparisons. For detailed information, refer to the appropriate Stratagy model and feature description in this manual, as some capacities may be reduced by other feature selections.								

Stratagy Flash and IVP8

Stratagy Flash and IVP8 share many of the same features and capabilities.

The Flash is designed for small businesses with fewer users and lower call volumes. It delivers the power of voice processing without the investment, expense, and administrative overhead of many larger voice processing systems.

The IVP8 is an integrated voice processing solution designed to be installed in a base/expansion cabinet card slot of a Strata CTX or Strata DK telephone system.

Stratagy Flash

The Stratagy Flash (shown right) is a standalone, two- or four-port, solid-state voice messaging platform that combines Stratagy software with flash memory and an integrated CPU, all enclosed in a compact and easily installed unit manufactured by Intel Corporation.

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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, light and rugged. It operates in the Flash 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.

Each Flash has been preprogrammed at the factory for out-of-box (plug-and-play) operation on the Strata DK14 and DK40i.

Both models, the two-port (SG-F-2) and the four-port (SG-F-4), come from the factory equipped with a flash memory cartridge that provides approximately four hours of voice storage. A 256MB CompactFlash card upgrade is available from Toshiba that provides approximately 22 hours of voice storage. In the event of a power failure, Flash *does not* require additional batteries to retain its memory.

Upgrading the Flash to four ports does not require any hardware and is performed remotely by Toshiba.

The Flash system can be placed on a table top or wall mounted, if desired. Two wall mounting screws and wall anchors are included with the system.

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 38 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

The Stratagy IVP8'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 is a Strata-compatible circuit card for small- to medium-sized businesses that supports up to eight ports and provides approximately four hours of storage. A 256MB CompactFlash card upgrade is available from Toshiba that provides approximately 16 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 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 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 can also be synchronized with the Strata CTX/Strata DK KSU (KSU time) or run on its own system clock. The IVP8's system clock can automatically make Daylight Savings Time adjustments.

Upgrading the IVP8 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 38 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.*
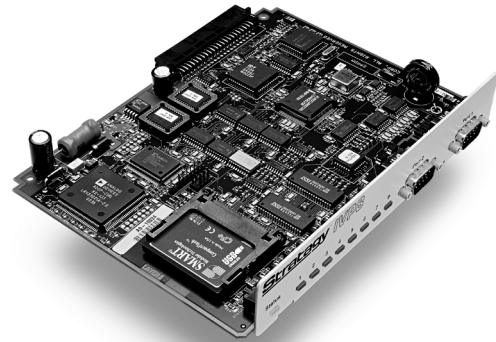
Stratagy Flash, IVP8 System Software

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 and Stratagy Flash's 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 iES32, ES4, ES80, ES96, and ES96R—designed for medium to enterprise-sized businesses.

Note   Unless otherwise specified in this book, all references to Stratagy ES include the Stratagy iES32.

The iES32 is an integrated circuit card that runs on Microsoft® Windows NT® 4.0 Embedded operating software. The Stratagy ES4, ES80, ES96, and ES96R run on Microsoft Windows NT 4.0 operating systems.

Stratagy iES32

Stratagy iES32 (shown at right) supports 4~32 ports and exclusively installs in any Strata CTX Base or Expansion Cabinet card slot. The iES32 is configured in increments of four ports (i.e., 4, 8, 12, 16, 20, 24, 28, and 32).

The card consists of a motherboard with an Intel® Pentium® II processor and a daughterboard that supports up to 16-ports and a hard drive with a storage capacity of approx. 600 hours.

A second optional 16-port daughterboard can be added to reach the maximum 32 ports available. This daughterboard ships with four ports installed to make a total of 20 ports. Additional ports 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. The iES32's one serial port is allocated for Toshiba Proprietary Integration (TPI).

Each iES32 has been preprogrammed at the factory for out-of-box (plug-and-play) operation on the Strata CTX. This includes the KSU integration and configuration parameters, default station (extension number) mailboxes, and company greeting and instructions.

The iES32 requires Stratagy ES Administration software to be installed on a separate Windows® 2000/ME/98 or Windows NT computer for remote administration over a network.

A software-based Stratagy Activation Module (SAM) called the SoftSAM is used when upgrading the iES32 for new Feature Groups and additional port capacities. An internal (soft) modem that operates at up to 36.6Kbps can be used for communication to any of the 32 voice ports.

The iES32 shares the same basic features and functions of the Stratagy ES product family, as well as a number of advance applications such as Fax Server and Unified Messaging (UM).

Stratagy ES4, ES80, ES96, and ES96R

Stratagy ES standalone platforms are labeled to indicate their maximum voice port capacity. They are Stratagy ES4, ES80, ES96 and ES96R, with the ES96R being a rack-mountable system. Each platform is designed for incremental expansion that accept one or more ISA-based peripheral boards from Intel in which to support voice and fax applications.

ES4 supports two~four voice ports. The ES80, ES96 and ES96R are preconfigured in software to support from 4~48 voice ports. As an optional upgrade up to 48 additional voice ports can be added (49~96).

All Stratagy ES standalone systems are equipped with IDE hard drives that can offer a voice storage capacity of 900 hours. Available voice and/or data application storage is dependent upon hard drive size, installed software to support some Feature Groups (e.g., Fax Server, 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 ES4

The ES4 (shown right) is a desktop computer equipped with an Intel Celeron® processor located on a motherboard, and one shared ISA/PCI slot providing up to four voice ports. Recommended for small businesses, this system is sold in three bundled configurations:

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- ES4 platform shipped with ProLine/2V and Windows NT Workstation (part # SES-4-WKS-2P). This configuration does not support the advanced applications of ASR and TTS.

- ES4 platform shipped with Dialog/4 and Windows NT Workstation (part # SES-4-WKS-4P). This configuration does not support the advanced applications of ASR and TTS.

- ES4 platform shipped with D/41ESC and Windows NT Server (part # SES-4-SVR-4P)

Notes

- Due to its card slot limit, the Fax Server Feature Group is *not* available on the ES4.

- ES4 only supports use of the ProLine/2V, Dialog/4 or D/41ESC voice board. ES4 voice boards are *not* factory installed.

Stratagy ES80

ES80 (shown right) is a mid-size tower recommended for medium-sized businesses and comes equipped with an Intel Pentium processor located on a motherboard with five ISA slots for processing equipment.

6202

Stratagy ES96

ES96 (shown right) is the largest Stratagy ES platform. It is equipped with a passive backplane architecture that includes a Single Board Computer (SBC), equipped with an Intel Pentium® III processor, and eight Industry Standard Architecture (ISA) slots (minimum) available for processing equipment.

The ES96 is recommended for enterprise-sized businesses and is capable of supporting multiple CPU-hosted features, i.e., ASR and TTS.

6201

Stratagy ES96R

ES96R is a rack-mountable chassis with a passive backplane architecture that includes a SBC with an Intel Pentium II processor, and six ISA slots for processing equipment.

The ES96R has an industrial grade, rackmountable chassis and is capable of supporting multiple CPU-hosted features, i.e., ASR and TTS.

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Stratagy ES4, ES80, ES96, ES96R Standard Components

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

Table 2   Stratagy ES Base System Components

ES4[1,3]	ES80[1]		ES96[1]	ES96R[1,2]
Motherboard with Intel Celeron processor.	Motherboard with Intel Pentium processor.		Passive backplane architecture with a CPU located on a PCI-based SBC with an Intel Pentium III processor (in systems shipped after December 2001).	Passive backplane architecture with a CPU located on a PCI-based SBC with an Intel Pentium II processor.
3 PCI slots	1 dedicated PCI[2]	1 shared PCI/ISA[2]	4 PCI slots	3 PCI slots
1 shared PCI/ISA for processing equipment	5 dedicated ISA[2] for processing equipment		8 ISA slots (minimum) for processing equipment	6 ISA slots for processing equipment
Standard Components				
• IDE 15GB hard drive for a maximum voice storage of 900 hours. This value is subject to database, application and Feature Group storage requirements.			• Two serial ports	
• 128MB of Random Access Memory (RAM)			• Keyboard and mouse	
• 3.5" 1.44 MB floppy disk drive			• 56Kbps Internal Modem[5]	
• 2~4 ports (ES4) • 4~48 voice ports (All other models)[4]			• Stratagy Activation Module (SAM)	
• CD-ROM drive			• 10/100BaseT Ethernet NIC	
• SVGA video controller			• Toshiba Proprietary Integration equipment: • Two 14-foot LAN cables – one cable is configured for a direct connection between the Stratagy ES and the Strata CTX (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	
• One parallel port			• ProLine/2V, Dialog/4 or Dialog/41ESC (ES4 only)	
Stratagy ES4 Standard Configurations				
SES-4-WKS-2P	ES4 platform shipped with ProLine/2V and Windows NT Workstation			
SES-4-WKS-4P	ES4 platform shipped with Dialog/4 and Windows NT Workstation			
SES-4-SVR-4P	ES4 platform shipped with D/41ESC and Windows NT Server			
1. A Toshiba Stratagy ES-approved UPS is required on all Stratagy ES systems. 2. ISA slots accept Dialogic voice and/or resource boards. Some PCI slots are used for other peripheral devices, e.g., NIC. 3. ES4 can use only ProLine/2V, Dialog/4 and D/41ESC voice boards. 4. 49~96 voice ports optional. 5. (Optional on ES4) For performing remote maintenance and troubleshooting on the ES4, Toshiba strongly suggests the purchase of the Remote Maintenance Kit (part no. SES-REMOTE-KIT). The kit comes complete with an internal 56Kbps Internal PCI modem and pcANYWHERE remote maintenance software.				

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, 66/110 block or RJ48C for T1 or Integrated Services Digital Network (ISDN). Connectors used depends upon voice card.

Specific voice and resource boards are required in order to implement certain Feature Groups. Table 2 lists the Feature Group and the required voice or resource board.

Table 3   Feature Group Hardware Component Configurations

Feature Group	Supporting Hardware for Stratagy ES
Fax Server (Fax Mail, etc.)	D/41ESC or D/160SC-LS board for SCbus GammaFax board
Unified Messaging (UM)	D/41ESC or D/160SC-LS board
Text-To-Speech (TTS)/EMail	D/41ESC
Automatic Speech Recognition (ASR)/AA	D/41ESC
Interactive Voice Response (IVR)	D/41ESC, D/160SC-LS board or SES-DL-P24-T1 Tape drive

Note A Toshiba Stratagy ES-approved UPS is required on all Stratagy ES systems.

Signal Computing System Architecture (SCSA)

Some of the advanced applications that the Stratagy ES is capable of performing require specific voice and resource boards. These boards are designed with Intel's Signal Computing System Architecture (SCSA)™.

A SCSA-based voice board, which is connected via the SCBus to an adjacent resource board, can perform any advanced application facilitated by the specific resource board; i.e., fax and ASR.

With the use of Signal Computing System Architecture (SCSA) provided by the GammaFax board, fax applications are performed quickly and efficiently. With SCSA, a voice call can be changed into a fax call on the same phone line, without requiring the call to be transferred to a dedicated line for fax.

Stratagy Activation Module (SAM)

Each Stratagy ES is equipped with a security key attached to the parallel port called a Stratagy Activation Module (SAM). The SAM enables the Stratagy ES system to function. Without the SAM, Stratagy ES becomes inoperable.

As new Feature Groups are added to an existing Stratagy ES system, the SAM is upgraded remotely by Toshiba.

Though the Stratagy iES32 is an integrated circuit card without a parallel port, it incorporates an embedded security key, called the SoftSAM.

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 Intel title followed by its associated Toshiba part number.

Important! *ES4 supports the use of ProLine/2V, Dialog/4 and Dialog/41ESC boards.*

- 2 ports – ProLine/2V™ (SG-DL-P2)
- 4 ports – Dialog/4™ (SG-DL-P4)
- SCSA-based Voice Boards:
    - 16 ports – D/160SC-LS™ (SG-DL-P16)
    - 4 ports – D/41ESC™ (SES-DL-P4-SC)
    - 24 digital T1 ports – D/240SC-T1™ (SES-DL-P24-T1)
    - 48 digital T1 ports – D/480SC-2T1™ (SES-DL-P48-2T1)

Note To avoid conflict issues with SCbus features (fax, TTS, ASR), Toshiba strongly discourages the mixing of SCSA compatible and non-SCSA compatible voice interface boards.

Resource Boards

- GammaLink® GammaFax board for fax applications – (SES-GFAX-SP6SC for 6 channels), (SES-SGAX-SP12SC for 12 channels).
- Intel Antares™ board for large TTS and ASR capacities – (SES-ANT-2000/50)

Optional System Support Components

- ES4 Remote Maintenance Kit (SES-REMOTE-KIT) – comes complete with an internal 56Kbps Internal PCI modem and Symantec™ pcANYWHERE™ remote maintenance software.

Important! *For performing remote maintenance and troubleshooting on the ES4, Toshiba strongly suggests the purchase of the Remote Maintenance Kit.*

- 8GB TR-4 Travan™ tape drive – (SES-TAPE-DR-8GB)
- ONEAC™ Model ON400A-SN (or equivalent), 400VAC, 1/2 hour UPS with Power Conditioner and Ground Bar with serial cable. Required for all Stratagy ES systems. (See "Stratagy ES Optional Equipment" on page 53 for specifications.)

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

Stratagy ES System Software

All of the Stratagy ES platforms run on Windows NT, with the iES32 running on Microsoft's Windows NT 4.0 Embedded operating system software.

All Stratagy ES systems including the iES32 run the same 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 NT/Windows NTE 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/Windows NT Software Platform Configurations

Stratagy ES is ordered factory loaded with either Microsoft Windows NT Server 4.0 or Windows NT Workstation 4.0.

Because Windows NT Workstation is limited to a maximum of 10 network client licenses, Stratagy ES with Windows NT Workstation is recommended for:

• Installations requiring large voice port capacities.

• Advanced voice processing applications requiring the power of Windows NT but not requiring multiple network client connections.

Important! *Toshiba does not furnish Windows NT or Windows NT embedded software for a Workstation to Server upgrade. Therefore, a customer's requirement for future client-based features should be closely scrutinized before ordering a Stratagy ES with Windows NT Workstation.*

The Stratagy ES running Windows NT Server is recommended for larger installations requiring communication with a number of client PCs on a network. For example, in UM multiple client PCs must have network access to the Stratagy ES to receive voice and fax messages on the PC desktop.

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 ES4, ES80, ES96, and ES96R.

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.
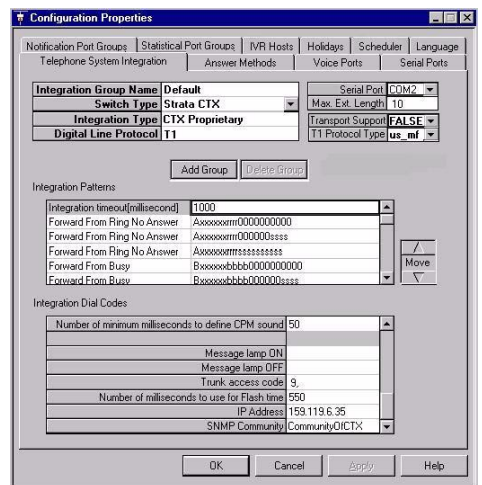
Microsoft NetMeeting

Note   Applies to iES32 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 Server, 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 4 below displays the available feature group configurations for the Stratagy ES Feature Groups:

Table 4   Feature Group Configurations

Feature Group	iES32	ES4, ES80, ES96, ES96R
Fax Server (Fax Mail, etc.)	✕	✕
Unified Messaging (UM)	✕	✕
Text-To-Speech (TTS)/EMail	✕	✕
Automatic Speech Recognition (ASR)/AA	Future Release	✕
Interactive Voice Response (IVR)	✕	✕

Feature/System Comparison Chart

The following table provides a list of the available Stratagy features. Supported features are denoted with a 5 in the appropriate box, where an "NA" indicates those features that are not supported by the specific Stratagy system.

Stratagy Features	Flash	IVP8	iES32	ES4, ES80, ES96, ES96R
Audiotex	✕	✕	✕	✕
Automated Attendant (AA)	✕	✕	✕	✕
Automatic Message Copy with Optional Delete	✕	✕	✕	✕
Automatic Message Copy with Start/Stop Time and Delay	NA	NA	✕	✕
Called Identification	✕	✕	✕	✕
Caller ID with SMDI	✕	✕	✕	✕
Caller Confirmation Prior to Transferring	✕	✕	✕	✕
Call Record (with Strata CTX)	✕	✕	✕	✕
Call Record Over Strata Net	NA	NA	✕	✕
Call Queuing	✕	✕	✕	✕
Call Screening	✕	✕	✕	✕
Class of Service (COS)	NA	NA	✕	✕
Copy Mailbox	✕	✕	✕	✕
Copy Range	✕	✕	✕	✕
Directory	✕	✕	✕	✕
Direct Transfer to Voice Mailbox (from Strata CTX)	✕	✕	✕	✕
Disk Space Notification	✕	✕	✕	✕
Distribution Lists	✕	✕	✕	✕
Do Not Disturb (DND)	✕	✕	✕	✕
Extensions—Scheduled	✕	✕	✕	✕
Fax Tone Detection	✕	✕	✕	✕
Future Delivery		✕	✕	✕
Guest User Mailboxes	NA	✕	✕	✕
Independent Port Greetings	✕	✕	✕	✕
Interactive Voice Response (IVR) via Token Programming	✕[1,2]	✕[1,2]	✕	✕

Stratagy Features	Flash	IVP8	iES32	ES4, ES80, ES96, ES96R
Mailbox – Function Lock	NA	NA	✕	✕
Mailbox – Groups	✕	✕	✕	✕
Mailbox – Security Code	✕	✕	✕	✕
Mailbox – Personal Greetings	✕	✕	✕	✕
Mailbox – Time Zone Setting	NA	NA	✕	✕
Mailbox Number – Varied/Fixed Length	✕	✕	✕	✕
Message – Continuous Delete	✕	✕	✕	✕
Message – Continuous Playback	✕	✕	✕	✕
Message – Date and Time	✕	✕	✕	✕
Message – Forwarding	✕	✕	✕	✕
Message – Pause During Playback	✕	✕	✕	✕
Message – Pause During Recording	✕	✕	✕	✕
Message – Playback Control	✕	✕	✕	✕
Message – Purging	✕	✕	✕	✕
Message – Reply	✕	✕	✕	✕
Message – Retrieval Control	✕	✕	✕	✕
Message – Return Receipt Verification	✕	✕	✕	✕
Message – Speed Control	✕	NA	✕	✕
Message – Notification	✕	✕	✕	✕
Message Storage – Personal Folders	NA	NA	✕	✕
Message Storage – Message Queues	✕	✕	NA	NA
Message – Volume Control	✕	NA	✕	✕
Messages – Private	✕	✕	✕	✕
Messages – Urgent	✕	✕	✕	✕
Multiple System Languages	NA	✕	✕	✕
Networking (AMIS)	NA	✕	✕	✕
Networking (VPIM)	NA	NA	✕	✕
Paging – Office	✕	✕	✕	✕
Paging – Relay	✕	✕	✕	✕
Remote Administration	✕	✕	✕	✕
Reports	✕	✕	✕	✕
Shutdown using the Telephone Dial Pad	✕	✕	NA	NA

Stratagy Features	Flash	IVP8	iES32	ES4, ES80, ES96, ES96R
Single-digit Menus	✕	✕	✕	✕
Soft Key Control of Voice Mail	NA	NA	✕	✕
Soft Key Control Over Strata Net	NA	NA	✕	✕
System Administrator's Mailbox	✕	✕	✕	✕
System Backup	✕	✕	✕	✕
Token Programming (custom applications, IVR, etc.)	✕[1,2]	✕[1,2]	✕	✕
Toshiba Plug and Play	✕	✕	✕	✕
User Tutorial (New User)	✕	✕	✕	✕
Varied Sampling Rates	NA	NA	✕	✕
Voice Forms	✕	✕	✕	✕

1. Stratagy Flash does not support some IVR tokens.
2. Stratagy Flash and IVP8 do not support fax tokens.

Telephone System Integration	Flash	IVP8	iES32	ES4, ES80, ES96, ES96R
Inband Integration	✕	✕	NA	✕
Toshiba Proprietary Integration (TPI)	NA	NA	✕	✕
SMDI Integration	✕	✕	✕	✕

Strata System Compatibility	Flash	IVP8	iES32	ES4, ES80, ES96, ES96R
Legacy Strata DK280, DK424, DK424i, DK24/DK56/DK96	✕	✕	NA	✕
Strata CTX100 and Strata CTX670	✕	✕	✕	✕

Feature Groups	Flash	IVP8	iES32	ES4, ES80, ES96, ES96R
Fax Server	NA	NA	✕	✕
Unified Messaging (UM)	NA	NA	✕	✕
Automatic Speech Recognition (ASR)	NA	NA	Future Release	✕
Text-to-Speech (TTS)	NA	NA	✕	✕
Interactive Voice Response (IVR)	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: All systems

When a Stratagy system is integrated via SMDI with the Strata CTX/Strata DK 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.

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 CTX)

System Availability: All systems

Important!   *Requires SMDI integration with Strata CTX system.*

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 Toshiba Proprietary Integration, Strata CTX Release 2, and Stratagy ES Release 4 software.*

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

Note   The Call Record feature remains only locally supported if the Stratagy voice mail system is one of the legacy DOS-based platforms, i.e. Stratagy Flash, Stratagy IVP8.

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 CTX)

System Availability: All systems

Internal users of the Strata CTX 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 CTX. In addition, the Direct Transfer to Voice Mailbox feature does not require a phantom extension number to be programmed within the CTX.

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 Flash and IVP8 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 Flash and IVP8 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: Stratagy IVP8, Stratagy ES

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: Stratagy IVP8, Stratagy ES

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

Note Stratagy Flash does not support some IVR functions.

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 39) 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 Flash and IVP8, 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 24 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 Flash and IVP8.

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 Flash, 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

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 Flash and IVP8, 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 Flash, IVP8

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: Stratagy Flash, Stratagy ES

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: Stratagy IVP8, Stratagy ES

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 CTX phone system.

American English is the standard language of Stratagy. Other languages for system prompts in the Stratagy IVP8 and Stratagy SES systems, as well as the Voice Mail Soft Keys in the Stratagy ES 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.

Benefit(s)

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

Networking (AMIS)

System Availability: Stratagy IVP8, 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 CTX 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 Flash, IVP8

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.

Note   Stratagy Flash requires an optional external 2400 baud modem to support this feature.

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 (ES4, ES80, ES96, and ES96R) or NetMeeting (Stratagy iES32) software, Toshiba Authorized Dealer Technicians or Toshiba Technical Support Engineers have full screen access to the system, including every available system feature. Windows NT RAS is also available for remote connectivity through a network.

Reports

Stratagy Flash, IVP8

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 Flash, IVP8

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 Toshiba Proprietary Integration.*

The Liquid Crystal Display (LCD) of digital telephones on the Strata CTX, 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 CTX 3000/2000-series 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.
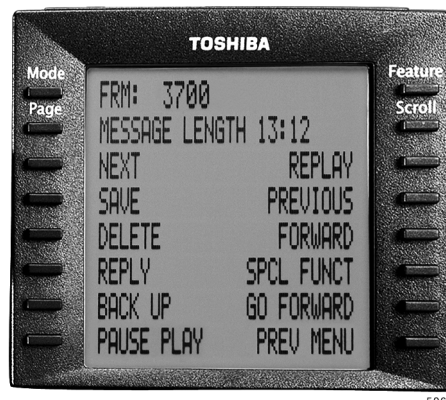
Soft Key Control Over Strata Net

System Availability: Stratagy ES

Important! *Requires Toshiba Proprietary Integration, Strata CTX Release 2, and Stratagy ES Release 4 software.*

Stratagy ES as the centralized voice mail system serving users in multiple Strata CTX 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 CTX nodes in a Strata Net multi-system networking configuration. Previously, this feature was only available to users in the Strata CTX node hosting the Stratagy ES voice processing system.

Note The Soft Key Control feature remains only locally supported if the Stratagy voice mail system is one of the legacy DOS-based platforms, i.e., Stratagy Flash, Stratagy IVP8.

Benefit(s)

????

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

Stratagy Flash, IVP8

Database information, greetings, and messages can be backed up onto floppy disks individually or in any combination. Stratagy estimates the number of floppy disks required.

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 iES32

Database information, greetings, and messages can be backed to a network server through the iES32's 10/100TBase network connection.

Stratagy ES4, ES80, ES96, ES96R

Using the Windows NT Backup program, customer configuration database information, greetings, and messages can be backed up onto an optional tape drive.

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 Flash or IVP8. Some IVR tokens are *not* supported by the Stratagy Flash.

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 Flash — Strata DK14 and DK40i

- Stratagy IVP8, iES32, ES4, ES80, ES96, ES96R — Strata CTX

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 CTX default extension numbers and user parameters are also preprogrammed in Stratagy Flash and Stratagy IVP8.

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

- Strata DK14 (Flash only)

- Stratagy DK14 w/SMDI (Flash only)

- Strata CTX100

- Strata CTX100 w/SMDI

- Strata CTX670 Basic

- Strata CTX670 Basic w/SMDI

- Strata CTX670 Expanded

- Strata CTX670 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 Flash and IVP8 and do not support this feature. The IVP8 sampling rates are fixed at 64 kbps for system prompts and greetings, and 32 kbps for voice message recordings. The Stratagy Flash sampling rates are fixed at 24 kbps for system prompts, greetings and voice message recordings.

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 Flash, IVP8; Stratagy ES4, ES80, ES96, ES96R

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.

Toshiba Proprietary Integration (TPI)

System Availability: Stratagy ES

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

Note   See the *Strata CTX DKT3000/2000-Series 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 CTX.

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.

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 Server and Unified Messaging. Offered exclusively for the Stratagy iES32, ES4, ES80, ES96, and ES96R, 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—iES32, ES4, ES80, ES96, and ES96R.

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.

Stratagy Activation Module (SAM)

The Stratagy ES SAM 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 SAM with new data, unlocking the feature for use.

Fax Server

With the Fax Server feature group, the Stratagy ES system serves as the central hub for fax messaging and transmission.

To use fax with the Stratagy ES:

- A Intel GammaFax board and D/41ESC or D/160SC-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 Server, the Custom Fax Printer Driver must be installed on the client computer.

Note   Due to its card slot limit, the Fax Server Feature Group is not available on the ES4.

To use fax with the iES32, the fax feature must be electronically activated by Toshiba using the SoftSAM. The iES32 will support two channels of fax for each active group of eight voice ports; i.e., a four or eight-port iES32 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 iES32, the additional fax channels are automatically included when the voice port capacity is upgraded.

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 Server

When bundled with the Fax Server 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 47 for details on using the UM with the Fax Server.

Automatic Speech Recognition (ASR)

Note   Currently not available with iES32.

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.

Since the resident processor within the computer provides the processing power for ASR AA, Toshiba suggests that when multiple processor-intensive applications (such as TTS) are desired that the Stratagy ES96 or ES96R be selected.

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.*

Important!

- *The Stratagy ES ASR AA requires the D41ESC (part # SES-DL-P4-SC) voice board to provide echo cancellation. The other Intel voice boards available for the Stratagy ES do not provide echo cancelling and cannot be used.*

The following requirements apply for an ASR AA system:

- the Stratagy Activation Module (SAM) must be activated for the feature by placing an order for the ASR AA Feature Group (Part No. SES-FG-ASR-AA)
- SpeechWorks® software (This software is provided on the Stratagy ES software CD-ROM that ships with each system.)
- D/41ESC voice board from TSD (Part No. SES-DL-P4-SC)

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 UM feature must be electronically activated by Toshiba using the SAM installed on the back of the Stratagy ES.

    - The Unified Messaging Feature Group (SES-FG-UM). The UM Feature Group includes five free UM client seats.

    - Additional UM client seats offered in increments of 25 or 50 (SES-UM-25-SEATS or SES-UM-50-SEATS). 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 Server 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.

Microsoft Outlook Integration

Stratagy ES has a proprietary integration designed to work with Microsoft Outlook®. 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.

Note   Due to its standards-based design, when you listen to and delete a Stratagy ES message from your mailbox by telephone, the e-mail listing is not deleted from the Outlook screen. If you click on the screen listing, you are alerted that the message has already been deleted by telephone. Simply delete the Stratagy ES message from the Outlook screen.

This integration does not require Microsoft Exchange as the e-mail server. Any e-mail server/service that is compatible with the Simple Message Transport Protocol (SMTP) 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 and Outlook 2000.*

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 proficient 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.
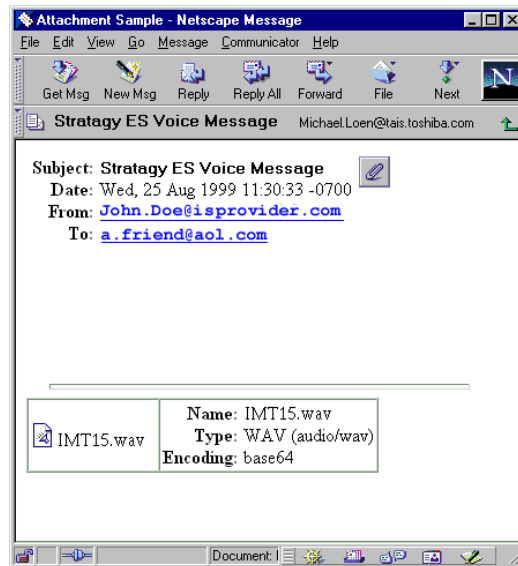
Integration Differences

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

Table 5   Outlook/Internet Protocol Integration Differences

Outlook Integration	Internet Protocol Integration
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 launches Stratagy ES proprietary Form.	Message selection launches the e-mail client's standard message screen with an audio (voice message) and/or image (fax) file attachment.
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 only be played over multimedia speakers.
Provides an Address Book that synchronizes with Stratagy ES mailbox directory.	Individual user must manually add addresses to an Address Book.
Automatically loads audio driver to enable Playback of 32K ADPCM Wav files.	Audio driver must be manually installed.

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 SpeechWorks International, a Toshiba TSD Platform Solution Provider.

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 iES32 systems 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 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.

Important!   *Since the resident processor within the computer provides the processing power for TTS, Toshiba suggests that when multiple processor-intensive applications (such as ASR AA) are desired that the Stratagy ES96 or ES96R be selected.*

To enable TTS on the Stratagy ES4, ES80, ES96, and ES96R:

- the ETI–Eloquence software must be installed. This software can be found on the Stratagy ES software CD-ROM that ships with each system.

- the Stratagy Activation Module (SAM) 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.

To enable TTS on the Stratagy iES32:

- the ETI-Eloquence software comes already installed on the iES32 systems that ship with Release 4 software. The software must be installed on iES32 systems that are upgraded to Release 4.

- the SoftSAM must be feature activated by placing an order for the TTS/Email Feature Group (part number SES-FG-TTS-ETI). Includes first two channels.

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 Server, 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 Flash and IVP8 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.

Stratagy Flash

Configuration	Dimensions	Weight	Power Requirements[1]
• 48MB of Flash Memory • Supports only Fax Tone Detection feature • Two or four ports[2] • Message capacity of approx. 4 hours • Two COM Ports (RS-232)	Height: 2.25" Width: 10.75" Depth: 9.25"	4 lbs.	120VAC at 27w (60 Hz)
[1] In areas where the power source is not stable (i.e., frequent power failures, brown outs, etc.), a customer-supplied power Uninterruptible Power Supply (UPS) is also required.			
[2] Port upgrades are performed electronically.			

Stratagy IVP8

Configuration	Dimensions	Weight	Power Requirements
• Two~eight ports (upgrades performed electronically) • Storage capacity of approx. four hours • Supports only Fax Tone Detection feature • Integrated board for Strata CTX 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 CTX power supply

Stratagy iES32

Configuration	Dimensions	Weight	Power Requirements
• 4~32 ports (upgrades performed electronically) • Integrated board for Strata CTX telephone system • Storage capacity of approx. 600 hours • 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 CTX power supply

Stratagy ES4, ES80, ES96, and ES96R

Configuration[1]	Dimensions	Weight	Power Requirements[2]
Stratagy ES4	15-3/8" W 6-1/4" H 16-7/8" D	21 lbs.	115 VAC at 6 amps (50/60 Hz) 230 VAC at 3.5 amps (50/60 Hz)
Stratagy ES80	7-5/8" W 20-1/8" H 17" D	33 lbs.	
Stratagy ES96	7-3/8" W 24-5/8" H 22-3/8" D	48 lbs.	
Stratagy ES96R	17" W 5" H 20.5" D	39 lbs.	

1. See "Stratagy ES4, ES80, ES96, ES96R 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 Flash, IVP8 Optional Equipment

System	Options
Stratagy Flash	9600 baud modem for remote maintenance[1] Cable for connection of IBM-compatible PC (SG-ADMCBL)
Stratagy IVP8	9600 baud modem for remote maintenance[1] Cable for connection of IBM-compatible PC (SG-ADMCBL) 12-hours of message storage provided by additional flash memory
All	ONEAC Power Conditioner and Uninterruptible Power Supply.

[1] Stratagy Admin and Stratagy Flash/IVP8 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:
    - ProLine/2V (2 ports) – Part No. SG-DL-P2
    - Dialog/4 (4 ports) – Part No. SG-DL-P4
    - SCbus Connection Boards:
        - D/160SC-LS (16 ports) – Part No. SG-DL-P16
        - D/41ESC (4 ports) – Part No. SES-DL-P4-SC
        - D/240SC-T1 (24 digital T1 ports) – Part No. SES-DL-P24-T1
        - D/480SC-2T1 (48 digital T1 ports) – Part No. SES-DL-P48-2T1

Note To avoid conflict issues with SCbus features (fax, TTS, ASR), Toshiba strongly discourages the mixing of SCbus compatible and non-SCbus compatible voice interface boards.

- Resource Boards:
    - GammaLink GammaFax board for fax applications – Part Nos. SES-GFAX-SP6SC (6 channels), SES-SGAX-SP12SC (12 channels).
    - Intel Antares board for TTS or ASR capabilities – Part No. SES-ANT-2000/50

        Important!
        - The Stratagy ES96 and ES96R are required for Antares-based configurations.
        - IVR systems using the host or Antares-based ASR feature group require an additional 128MB RAM.

Note The D41ESC or D160SC-LS must be installed if you install a GammaFax or Antares board.

- Additional System Resource Components:
    - 8GB TR-4 Travan tape drive (standard on systems with the IVR Application Suite) – Part Nos. SES-TAPE-DR-8GB, SES-TAPE-KIT-8GB
    - Serial port boards

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, $\ast$, #, A~D)
		
		45 ms
		–29 dB/minimum
		±10 dB

	DTMF transmit
	    Minimum tone duration
	    Transmit level
	    Twist range
		16 tones (0~9, $\ast$, #, 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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