

TOSHIBA INFORMATION SYSTEMS (UK) LTD

Business Communications Division

Strata CIX Office Release Notes

Introduction

Following the commercial release of the Strata CIX Office on Friday August 12th, Toshiba BCD believes that it is important give a brief update to all engineering staff within our Partner Channel. This document therefore presents a summary of all the current information we feel you need to know.

Strata CIX Office is an IP communication system that truly delivers on the promise of IP technology providing pure IP peer-to-peer functionality, supports 192 ports, a completely new IP telephone portfolio and provides a smooth migration path from Toshiba Strata CTX and Strata DK digital business communication systems. It also provides all the features and benefits of our traditional business communications systems on a converged IP platform and takes advantage of Toshiba's legendary migration path, enabling users of current Strata CTX digital business communications systems an affordable upgrade to the new Strata CIX Office system, while protecting their original investment.

The Strata CIX Office IP business communications system is designed to also allow it to be TDM-capable. This protects and maximises investments in existing telecommunications technology, and implement new IP-based communication capabilities. Unlike many competitive IP systems, Strata CIX Office gives users a choice of a pure IP system or a mix of IP and digital TDM. This allows users to choose how they will maximise their systems and migrate existing equipment. Not everyone wants or needs a pure IP system. With the Strata CIX Office, users have a choice of mixing and matching technologies, creating a pure IP system or a converged solution, and changing based on the needs of their company.

Strata CIX Hardware Components

The Strata CIX Office can be configured as a one or two cabinet system, consisting of a Base Cabinet and one optional Expansion Cabinet. One processor model supports all Strata CIX Office configurations, from smallest to largest.

Common Control Processor Unit (LCTU1C)

The Strata CIX Office uses a completely new single-card common control processor unit, with a high-speed 32-bit RISC processor, DRAM working memory, SRAM with lithium battery on-board flash program memory, and removable Toshiba Smart Media flash memory.

The Strata CIX processor has the following standard components built-in:

- Smart Media memory card interface. A Smart Media flash memory card can be inserted to backup and restore customer program data. It also makes it easy to upload operating system data for software upgrades and maintenance functions.
- One Music-on-hold/Background Music Interface is provided by an RCA jack and a volume control that are built into the processor to interface with a Music-on-hold and/or Background Music source.

Up to 15 MOH/BGM sources are supported by adding up to two BIOU option cards, each provides three MOH/BGM input sources, and a BSTU card that provides up to eight MOH/BGM input sources. MOH/BGM source volume adjustment is controlled by software programming:

- Network Interface Card (NIC) Ethernet 100Base-T Ethernet port for IP management and connection to Open Architecture Computer Telephony Interface (CSTA) applications. This provides extensive call control and telephone support for CTI applications.
- 32 built-in DTMF receivers.
- 16 built-in Busy Tone (BT) detectors for Auto Busy Redial (ABR).
- 64 built-in conference circuits.
- Built-in, adjustable, digital volume PAD technology enables audio volume to be adjusted in eight steps to compensate for conference and/or exchange line network losses.
- Page connector.
- Relay connector.
- Memory Protection Lithium Battery that protects data and the customer's programmed configuration from memory loss. This information will be maintained in a powerless system for at least six years.
- Optional subassemblies can be added to the LCTU processor PCB to enable system expansion and provide additional features. The subassemblies are:
 - AMDS (Modem) which attaches to the LCTU to provide a 33.6Kbps/V.34 modem for point-to point local or remote connection.
 - BSIS interface PCB which attaches to the LCTU to provide up to four RS-232 interface ports for SMDR Call Accounting, and SMDI or Toshiba Proprietary Voice Mail interface.

IP Interface Unit (LIPU-X1A) and Sub-assembly (LIPS-X1A)

The LIPU IP interface card works in conjunction with the system processor to provide distributed IP processing capabilities that include peer-to-peer IP telephone communication and IP Strata Net multi-system networking. LIPU cards install in universal card slots in the Strata CIX Office base cabinet or expansion cabinet:

- The LIPU can support up to 16 IP resources (ports).
- With the LIPS sub-assembly installed on the LIPU, this combination can support up to 32 IP resources.
- The LIPU/LIPS combination can be programmed as a single (up to) 32 IP resource card.
- When programmed for G711 codec or G.729a with 16 ms echo cancel delay the LIPU supports 16 IP resources.
- When programmed for G.729a codec and 32 ms echo cancel delay 12 resources are available.
- The LIPU/LIPS supports all "IP" functionality in the Strata CIX. This includes the following supported Multiple protocols:
 - MEGACO+ delivers a consistent user interface over all Toshiba IP endpoint devices. Toshiba has enabled the MEGACO protocol for call control to provide more stimulus/response capabilities that allows all the feature functionality of DKT3000-series digital desktop telephones to be supported on IP telephones. The MEGACO+ protocol is able to implement this feature functionality consistency much better than could be done using other VoIP protocols.
 - Strata Net IP Networking of multiple Strata CIX systems.
 - IP endpoint devices and interfaces:
 - Toshiba IP telephones.
 - CIX IP WOC.

- Soft IPT on Notebook and Tablet PC's.
- Strata Media Application Server (Future development)

Base Cabinet (CHSUB192F)

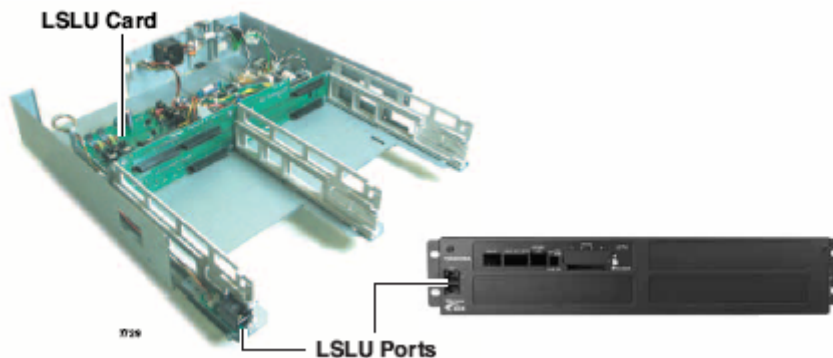
The Strata CIX Office Base Cabinet is a 3.5" high rack mount design that fits standard (customer-supplied) 19"-racks. The base cabinet includes the power supply.



The base cabinet has four slots, one dedicated for the processor card, and three universal slots for interface cards. Compatible interface cards include the new LIPU/LIPS IP interface cards and the current Strata CTX interface cards that support exchange lines, digital telephones, analogue stations, etc. For a more detailed list of these common interface cards please refer to CIX Technical Bulletin 003: "Compatibility of legacy PCBs with Strata CIX Office" on the Partner Portal of the Toshiba BCD website at <http://telecoms.toshiba.co.uk>

Analogue Standard Station Interface Unit (LSLU1F)

The optional two-circuit LSLU1F interface card provides connection of two analogue devices, such as fax, modem, etc, without message waiting. The LSLU1F installs into a dedicated mount in rear of Strata CIX Office Base Cabinet behind the processor slot. The LSLU1F does not occupy any of the universal slots of the cabinet, so it does not reduce the maximum capacity of the system. The two analogue station ports are accessible on the front of the base cabinet via modular connectors.



Expansion Cabinet (CHSUE192F)

The Strata CIX Office Expansion Cabinet is a 3.5" high rack mount design that fits standard (customer-supplied) 19"-racks. The expansion cabinet includes the power supply. The expansion cabinet has four universal slots for interface cards. Compatible interface cards include the new LIPU/LIPS IP interface cards and the current Strata CTX Office interface cards that support exchange lines, digital telephones, analogue stations, etc. For a more detailed list of these common interface cards please refer to CIX Technical Bulletin 003: "Compatibility of legacy PCBs with Strata CIX Office" on the Partner Portal of the Toshiba BCD website at <http://telecoms.toshiba.co.uk>



Modular or Amphenol Connections Made Easy

The Strata CIX provides a choice of using either RJ45 modular connections or amphenol connections for terminating CO line and station interfaces:

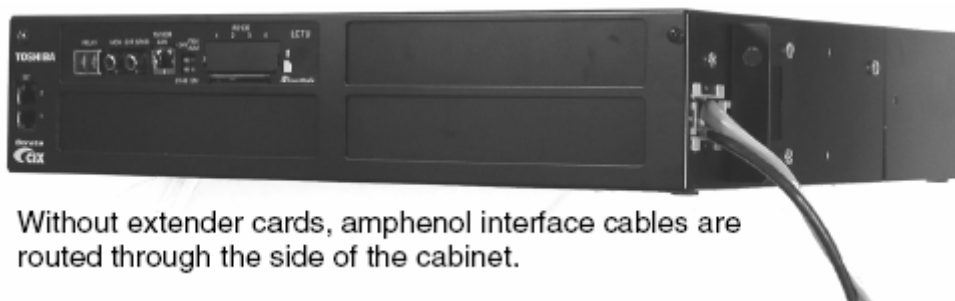
- Modular connectors provide an IT friendly environment using RJ45 cables and patch panel connections in data racks.
- Amphenol connectors provide efficient connection to existing voice cables terminated on the wall on 110 or 66 blocks.
- Either way, the installation technician can exercise their preference or the customer's preference of which type of connection will take less time to install.

Modular RJ45 connectors are provided by adding optional extenders and modular faceplates to interface cards used in the Strata CIX Office. This enables the modular interface cables to be connected at the front panel of the Strata CIX Office cabinet as shown below.



With extender cards, modular interface cables are connected at the front panel of the cabinet.

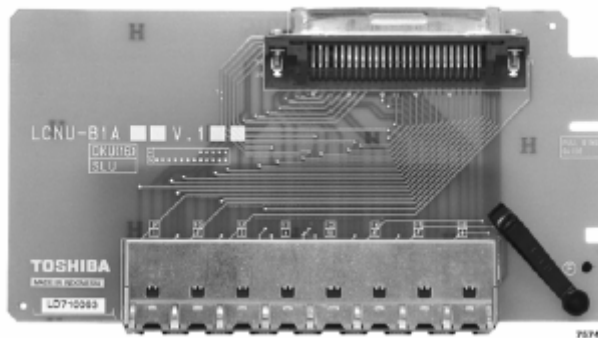
Amphenol connectors are provided by using CTX interface cards in the Strata CIX without extender cards. In this configuration, amphenol interface cables are routed through the side of the cabinet and a flat face plate covers the slot housing the card as shown below.



Without extender cards, amphenol interface cables are routed through the side of the cabinet.

The Strata CIX supports two different types of optional extenders for interface cards, depending upon the type of connectors that exist on the card:

- One type is connected between the interface card and the cabinet backplane. This type of extender brings the existing interface connectors of the card to the front of the cabinet (LIPU, BPTU, VM). The correct front plate for the interface card is packaged with the extender.



- The second type of extender plugs into the interface card front connector and presents different (modular) connectors to the front of the cabinet (BDKU, BWDKU, BSTU, RCOU, REMU, RBSU). The correct front plate for the interface card is packaged with the extender. For more Extender information, refer to the Strata CIX Office Install chapter in the Strata CIX Office Installation and Maintenance Manual available from the Partner Portal on our website.

Note!!! LCNU-A1A is no longer part of the Strata CIX Office portfolio. Please use LCNU-B1A for DKT and SLT interface cards. When utilising the LCNU-B1A in installations at which sites there is also structured (CAT5) cabling, remember that you will also need the RJ45-LINECORD-B pack. This pack consists of 8 RJ11 to RJ45 cables for DKTs to utilise RJ45 sockets. The RJ45-LINECORD-B pack is not required for Single Line Telephones (SLT) interface cards (BSLU/BSLS and BSTU) where the standard line adapters are suitable.

Power Failure Transfer Unit (LPFU1A)

The optional 8-circuit LPFU1A card enables selected exchange line circuits and SLT to be disconnected from their interface cards when system AC power fails. The SLTs are then connected directly to exchange line circuits until power is restored. The LPFU1A card installs onto the exchange line card as an extender, so it shares the same cabinet slot.

System Administration

eManager

Toshiba's new system administration tool, eManager, unifies the programming of both the Strata CIX Office telephony features and the Stratagy ES Voice Processing features of the system:

- eManager provides administration and management of the telephone system allowing technicians and system administrators to program both together, eliminating many duplicate steps.
- Some new wizards are added to support setup on integrated screens.
- A new User Profile is designed to record equipment, user privileges, and authenticate the users during login. The User Profile allows organizing the equipment into domain groups of networked systems and presenting them in a tree. The user can select from the tree which equipment they want to access for administration. eManager is a Web browser-based application that resides on a server or locally on a designated PC. eManager can be accessed locally over the LAN or, with proper network security, remotely over the Internet, and because it is used from the user's Web browser, no special software is required to be loaded on the user's client PC. The Web browser must be Windows Internet Explorer 5.5 or above. (Note: At this time eManager does not support other Web browsers).

For a more detailed list of these common interface cards please refer to CIX Technical Bulletin 004: "Release Notes for eManager V3.10A19" and also "Creating User Profiles on eManager" on the Partner Portal of the Toshiba BCD website at <http://telecoms.toshiba.co.uk>

Note!!! Please note that due to the application size, eManager is not available for download via the Partner Portal of the Toshiba BCD website at <http://telecoms.toshiba.co.uk>

It is Toshiba BCD's intention to send 2 CD-ROMs containing eManager, My Phone Manager and IP WOC (as at when it is commercially released) to each of our Direct Partners.

My Phone Manager Gives Telephone Programming to Individual End-Users

Toshiba's new personal administration tool, My Phone Manager, puts telephone personalisation in the hands of individual users, allowing them to easily program speed dial buttons, feature buttons, Do Not Disturb functions, and even the name on their LCD displays, using their PC's Web browser:

- Administrator support is reduced because individual station users can program their own telephones themselves.
- With My Phone Manager, every person within the organization can customize their telephone to incorporate the features they use the most.
- My Phone Manager is also very useful to system administrators, who can administer changes for groups of users.
- My Phone Manager is a Web browser-based application that resides on the Strata Media Application Server. The My Phone Manager application can also be loaded on a separate server connected to the CIX Office network if the customer prefers. My Phone Manager can be accessed locally over the LAN or with proper network security remotely over the Internet, and because it is used from the user's Web browser, no special software is required to be loaded on the user's client PC. The Web browser must be Windows Internet Explorer 5.5 or above. At this time My Phone Manager does not support other Web browsers.

For a more detailed list of these common interface cards please refer to CIX Technical Bulletin 004: "Important My Phone Manager Installation Tips", "My Phone Manager Initial Set up" and also "My Phone Manager A42 Release Notes" on the Partner Portal of the Toshiba BCD website at <http://telecoms.toshiba.co.uk>

Note!!! Please note that due to the application size, eManager is not available for download via the Partner Portal of the Toshiba BCD website at <http://telecoms.toshiba.co.uk>

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Strata CIX Software Features

In addition to its new IP features, the Strata CIX Office delivers all the features and functionality of Strata CTX digital business telephone systems, taking advantage of Toshiba's decades of experience serving enterprises with voice solutions.

Unlike many competitor IP systems that forced users to choose technology over feature functionality to make the leap to IP, the Strata CIX Office goes way beyond the basics in delivering the same robust telephony feature set that Strata CTX users enjoy. Strata CIX Office users have the ability to communicate effectively with their customers, vendors, and each other, as they take a giant leap forward into the world of IP telephony.

Strata CIX Office offers Voice Processing features, networking capabilities, supporting 250 plus telephony features.

2000-series IP Telephones

There are three new Toshiba IP telephones as part of the Strata CIX Office solution. You are already familiar with two of them, the IPT2010F-SD and the IPT2020F-SD, released in September for use with Strata CTX systems. The third is the IPT2008-SDL, a large-LCD IP telephone model with Web browser buttons that support HTML-based terminal applications.



**Toshiba
IPT2010-SD**



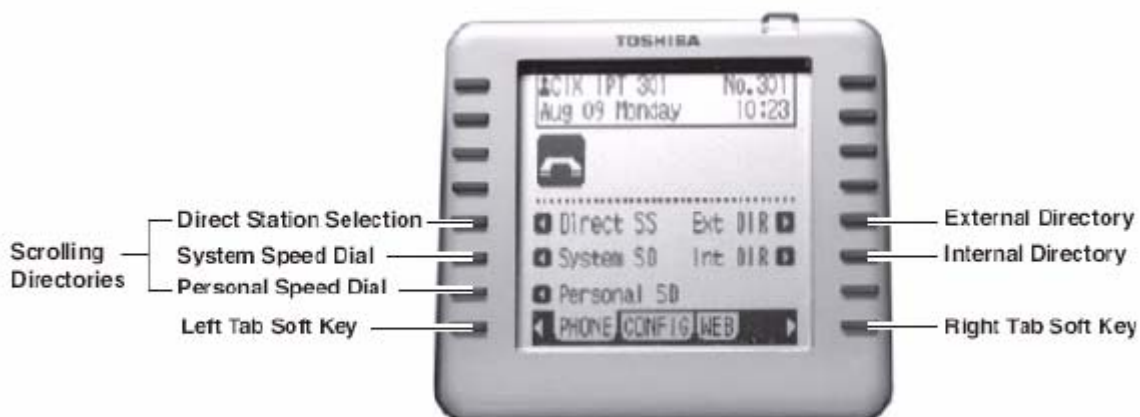
**Toshiba
IPT2020-SD**



**Toshiba
IPT2008-SDL**

All three IP telephone models have the following capabilities:

- 802.3af Power-over-Ethernet compliant.
- Peer to Peer communication with the LIPU.
- Built-in tilt stand base. In addition, the IPT2010F-SD, IPT2020F-SD, and the IPT2008-SDL offer full duplex speakerphone feature capabilities when used with an LIPU. The IPT2020-SD and IPT2008-SDL will also support Speaker Off-hook Call Announce (OCA) with no additional Hardware required. All three models support Handset OCA. The IPT2008-SDL has 16 soft keys and a 144 x 128 pixel LCD. From the idle screen (shown below), you can access telephone directories and speed dial lists of names or departments, internal or external to the telephone system. You can page forward or backward, or search by name or letter within a list.



Add-on Module and DSS Console

For DSS/BLF answering positions and additional button applications, the 20-button Add-on Module and 60-button DSS Console will be available for use with the new IP telephones.



**Toshiba
IADM2020**



**Toshiba
IDSS2060**

Commercial availability of the Add-on Module and the DSS Console is currently planned for September 2005.

CIX Office IP WOC

For high-volume answering position applications, the Strata CIX IP Attendant Console provides the same functionality as the current CTX Attendant Console. In addition, it also works as a Soft IPT, so it does not require a physical telephone used in conjunction with the console if the operator is using a headset.

The CIX IP Attendant Console connects via IP, so it can be located at the front desk or located remotely on the network.

Commercial availability of the IP WOC is currently planned for September 2005. In the meantime, the existing WOC can be used with Strata CIX Office.



TASKE

Toshiba are also proud to announce the availability of TASKE Contact and myTASKE Reporter, from TASKE Technology. Providing comprehensive business analysis and reporting tools, and providing complete visibility of the contact centre environment, the two solutions help businesses improve performance, enhance customer relationships and maximise profitability. TASKE pricing information will be posted on the partner portal by commercial availability date.