

## ***An all-in-one solution server for VoIP, data and telephone interfaces.***

### **Product Description:**

A powerful communications server for business locations with 150 or fewer users; the Coral IPx Office is designed for organizations who want VoIP and want the flexibility of other popular interfaces (PRI, T1, analog etc.) The unit is configured with a built-in router and switch for data connection within the office. Place one IPx Office unit at each site for a network of Coral IPx systems providing seamless continuity in a multi-site organization.



### **How it Works:**

- ✦ Nineteen inch rack-mount 2U chassis VoIP server also includes an 8 port data switch and optional router with 802.11 WiFi in a compact package.
- ✦ All the call processing power of a PBX but designed for VoIP. Without adding a single expansion card, the Coral IPx Office can accommodate 150 IP end-points such as SIP phones, soft phones, WiFi phones, SIP trunks, or Tadiran's FlexIP full-feature (MGCP-based) telephones.
- ✦ Add expansion cards for PRI/T1, analog trunks and stations, or digital FlexSet feature phones. Media Resource channels are needed for any IP application. (A media resource channel is needed for simultaneous conversations crossing IP segments, or from IP to legacy connections such as PRI).
- ✦ IP Networking (for Coral IPx Offices supporting multiple locations) is available as a simple software turn-on option.

## End-user Benefits:

- ✧ Designed from 'square one' to seamlessly integrate both voice and data capabilities, this compact unit simplifies the buying process, shortens implementation and reduces transition time to the new system.
- ✧ VoIP provides toll cost savings, simpler wiring, easier implementation and easier integration into back-office database applications.
- ✧ Powerful Coral IPx features won't strand users who are accustomed to telephony features.
- ✧ Standards-based design allows users to choose third-party devices such as video phones, SIP phones, and soft clients.
- ✧ Expandable with IP and other telephony interfaces. Adding another IP phone requires no new dedicated hardware ports.
- ✧ Supports VoIP telephones at home or for remote employees.

## Positioning:

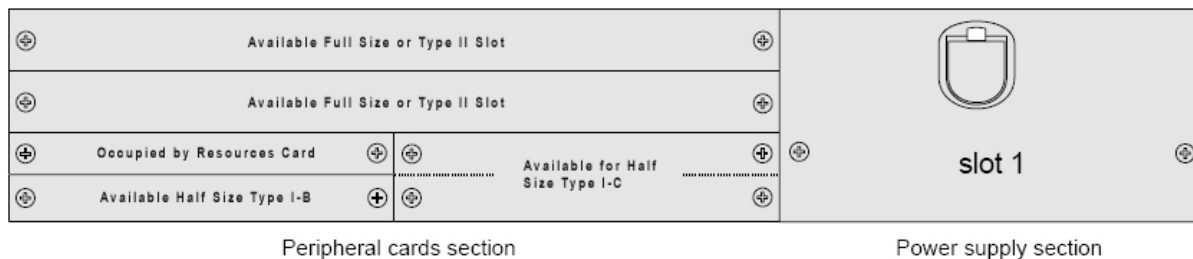
- ✧ Smart all-in-one design. Perfect for a new installation that isn't looking to migrate any legacy phones or circuits. A router and switch provides logical connections for the VoIP and provide basic LAN components they will need. The wireless 802.11g sweetens the package.
- ✧ Economical branch office in a network of sites. Because, the VoIP capabilities are built-in, this becomes very cost effective in IP networking.
- ✧ Pure IP. For those applications that only want IP, the Coral IPx Office gives them SIP capability and economical options for analog ports (for fax etc.) if needed.
- ✧ Upgrade for existing Coral systems. For those smaller Coral sites that were considering upgrading to VoIP, this system might be the most cost effective alternative. It also supports IPx500 and IPx800 expansion cabinets.
- ✧ Feature-rich IP telephony. Supporting Tadiran FlexIP soft phones and FlexIP hard phones provides for hundreds of telephony features.

## Availability:

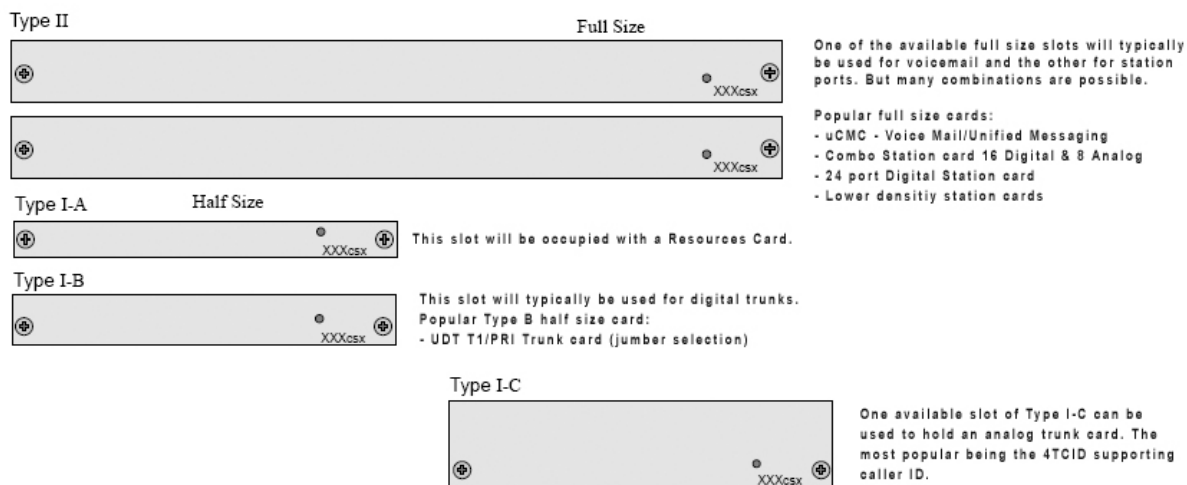
- ✧ February 2006.

## Expansion Components:

The Coral IPx Office has expansion slots to accommodate voice messaging, and interface cards such as PRI, SLT, and Analog trunks. Access to the back of the unit provides hot insertion of cards without removing the unit from the rack. The 4 port analog station card (denoted as a "S" carrier card) that reside in the type II slots can accept digital station daughter cards which are denoted as "Fx" cards. The combination (per type II slot) would provide 4 Analog with 16 digital or 4 analog and 8 digital.



The diagram below explodes the cards and provides more information about the usage of the expansion slots.



## Voice Capacity:

The Coral IPx Office has the maximum capacity of 150 IP end-points and 64 media resource channels for simultaneous conversations. Conversations between two IP end-points on different IP segments would use a media resource channel. A conversation from an IP phone talking to an outside caller on PRI or analog LS trunks would also require a media resource. Because there are many variables in terms of media types and compression codecs (in VoIP) please follow these capacity guidelines.

Below is the maximum for each type interface. Please keep in mind that maximizing slots for one of these interfaces would leave no slots for other types of legacy interfaces.

- ✦ 150 - Total of FlexIP phones, SIP phones, FlexIP soft phones, or soft SIP client applications. No card slots are needed to support IP end-points.
- ✦ 64 - Total simultaneous conversations that need a media resource. Media resource cards occupy a single dedicated slot that can only be accessed by removing the entire chassis cover. You can not combine the 8 channel card with another; you can have 8, 16, 32, or 64 channels of media

resources. Do not confuse these media resource cards with the telephony resource card (RMI) which occupies slot I-A. You will need Media Resource channels if using IP (even in a pure IP situation.) Access to this slot can not be accomplished while rack-mounted.

- ✦ 48 - Digital Feature phones. FlexSet 280 and 120 telephones require the F daughter boards on S carrier cards or the 8SFT or 24SFT non-carrier card. Using two of the 24 port cards would occupy both full size slots and provide 48 digital stations. (With 48 digital ports there would be no slot left for Unified Messaging). A more practical alternative is 42 Digital and 8 Analog.
- ✦ 8 -Analog stations with 4S in both slots. (Again leaving no slot for unified messaging). These Analog boards do support 8 and 16 port digital daughter boards.
- ✦ 20 - Analog Loop Start trunks could be achieved using two 8Ts and one 4T card. This would again leave no room for other cards, including voice mail.
- ✦ 6 - 14 party Conference Bridges are available with URC Conference Package, 1 -14 party conference bridge is standard.

## Pricing the System:

The Coral IPx Office is packaged and priced so that you can easily choose the configuration that best meets the application. When configuring a system follow these simple guidelines.

- ✓ Start with a Base Unit.
- ✓ Choose MRC8, MRC16, MRC32, or MRC64 if using IP. If no IP, do not add a MR card.
- ✓ Choose trunk, station, or voice mail cards as needed. Note that 4SOffice 4 port analog station card is a carrier card that can accept the "Fx" digital station daughter cards. The "F" cards are not carrier cards.
- ✓ If you are using Tadiran FlexIP phones you don't need user licenses, nor would you need licenses for digital phones. But if you are using a Tadiran-certified 3<sup>rd</sup> party SIP phone you may need to add additional user licenses.
- ✓ If this system is going to be networked to another location, it would need the IP networking option. There is no "per-channel" charge. This is all you need for networking.
- ✓ If conference bridges or FlexiCall are to be extensively used choose either URC Package A or B, but not both. If nominal use of conference bridge or FlexiCall, choose neither.

Coral IPx Office Server	Model	Part Number
The Coral IPx Office server includes all operating system software and capacity to support up to 150 users. Included in the base package is support for 5 SIP users, 5 SIP trunks, 5 FlexIP Soft phone users, (1) 14 party conference bridge, (6) 3-way conferences, 8 DTMF Receivers, and the Standard Coral IPx feature set including FlexiCall. A Remote Maintenance card is included.		
Coral IPx Office Base Unit	BASEOffice	77440800800
Integrated Router/Firewall	ROUTOffice	77440802200
WiFi (requires above Router option)	WIFIOffice	77440990133

Media Resources for IP applications		
Media resource channels are necessary for IP conversations that cross IP segments or for IP devices that are connected to traditional telephone interfaces such as PRI, SLT, SFT, voice mail.		
MRC 8 channels	MRC8 Office	72449279100
MRC 16 channels:	MRC16 Office	72449280100
MRC 32 channels	MRC32 Office	72449281100
MRC 64 channels	MRC64 Office	72449282100

Expansion Components	Model	Part Number
The Coral IPx Office has hot insertion slots for telephony interface and voice mail cards. The system has 2 Type II slots which are typically used for traditional station ports and voice mail. The system also has a single Type I - C slot designed for the 4 port analog trunk card (or alternatively for a secondary UDT card which supports PRI/T1.) The system has a single 1-B slot which is to hold the UDT or BRI digital trunk card.		
Type I Expansion cards – System has (1) type I-C slot and (1) type I-B slot		
PRI/TI Digital Trunk (type I-B or I-C)	UDTOffice	77449326100
4 Analog Trunk (type I-C only)	4TOffice	77449320100
4 Circuit Caller ID (daughter card)	4CIDOffice	77449314100
Type II Station, Trunk, Voice Mail Cards (2) slots maximum (4S carrier card accepts daughter card)		
8 Digital FlexSet (type II)	8FOffice	77449217100
16 Digital FlexSet (type II)	16FOffice	77449219100
24 Digital FlexSet (type II)	24FOffice	77449211100
4 Single-Line Analog (carrier type II)	4SOffice	77449222100
8 Digital FlexSet (daughter card)	8FxFFice	77449218100
16 Digital FlexSet (daughter card)	16FxFFice	77449210100
8 Analog Trunk (type II)	8TOffice	77449321100
8 Circuit Caller ID (daughter card)	8CID	72449314100
4 - uCMC Unified Messaging (type II)	IPC Office/uCMC-4	77449411300
4- WiCMC Unified Messaging (type II)	IPC Office/WICMC-4	77449412000

Tadiran Telephones		
FlexIP 280S IP Telephone (Black)	FlexSetIP280S	72440165900
FlexSet 280S Digital (Black)	FlexSet280S	72440164700
FlexSet 120S Digital (Black)	FlexSet120S	72440164300

Networking and Additional Software Licenses		
IP Networking	QNETOffice	72440994446
5 - user SIP license:	5SIPuserOffice	72440994447
5 SIP Trunk licenses	5SIPtrunkOffice	72440994448
5 - FlexIP Soft Phone	5IPSOFTOffice	72440994449

System Resource Allocation Packages		
Resources capabilities can be licensed based on user needs. These packages are optional. Conf Package - (5) 14-party conf., (6) 3-way, 8 DTMF & 8 DTD. Mobility Package - For FlexiCall (2) 14-party (6) 3- way, 48 DTMF		
URC Conference Package	(URCconfOffice)	72440994450
URC Mobility Package	(URCmobilOffice)	72440994451

## Hardware Configuration Examples:

The table below lists some common hardware configurations. (Although not listed) Slot I-A will have a telephone resources card (RMI) in every example below. You will need to choose a MR card if using IP. It mounts inside the chassis not in an expansion slot. This section doesn't elaborate on software licenses such as SIP trunks and IP endpoints.

Size	Slot used	Application
150	None	Pure IP - Users with IP phones and SIP trunks.
150x4	I-C - 4T IIs and I-B open	Branch office or Pure IP with 4TOffice for Analog trunks.
150x23	I-B - UDT	All IP phones with a single PRI for trunking.
150x23x4	I-B - UDT I -C 4T Both IIs open	IP phones for users, PRI for trunks, and 4 analog trunks.
150x4x4	II - 4S I-C - 4T II - open	Branch office with 4 analog trunks, IP phones and 4 analog stations for fax, cordless phones, door box etc.
150x23x4x4	II - 4S II - open I-B - UDT I-C - 4T	IP users, PRI, 4 analog trunks, 4 analog stations.  *One type II slot still open for expansion or unified messaging.
150x23x24x4	II - 24 SFT II -open I-B - UDT I-C - 4T	IP users, PRI trunks and 4 analog trunks and 24 digital ports to support FlexSet digital telephones.
150x23x16x4x4	II - 4S with 16F II -open I-B - UDT I-C - 4T	IP users, PRI trunks and 4 analog trunks, 4 analog stations and 16 digital ports to support FlexSet digital telephones.
150x23x48x4	II - 24 SFT II - 24 SFT I-B - UDT I-C - 4T	IP users, PRI trunks and 4 analog trunks, and 48 digital ports to support FlexSet digital telephones.  *this configuration doesn't have a slot left for unified messaging.
150x46x40x4	II - 4S with 16 F II - 24 SFT I-B - UDT I-C - UDT	IP users, 2 PRI trunk cards, 4 analog stations and 48 digital ports to support FlexSet digital telephones.  *this configuration does not have a slot left for unified messaging.

## Data Switch, Router and WIFI:

The Coral IPx Office includes an 8 port data switch with 802.11g WIFI, router with NAT and firewall for a small office. The networking capabilities of the system are outlined below.

### Firewall

- ⌚ Stateful Packet Inspection Technology
- ⌚ Selectable DoS/DDoS protection
- ⌚ IP address anti-spoofing
- ⌚ User-configurable packet filtering policies
- ⌚ NAT/PAT, Multi-NAT with Port Forwarding/Redirection & DMZ
- ⌚ E-mail alerting mechanism

### Virtual Private Network (VPN)

- ⌚ Up to 32 simultaneous VPN tunnels
- ⌚ Dial-in or dial-out, LAN-to-LAN or Teleworker-to-LAN
- ⌚ Tunnel protocol support for PPTP, IPSec, L2TP, L2TP over IPSec

- ⌚ AES, MPPE, and hardware- based DES/3DES Encryption
- ⌚ Authentication support for MD5 and SHA-1
- ⌚ IKE key management and is Interoperable with other leading 3rd party VPN devices or software

#### *Bandwidth Management facilities*

- ⌚ Class-based bandwidth guarantee by user-defined traffic categories
- ⌚ Provision of inbound/outbound bandwidth control
- ⌚ Support of eight priority-levels and DiffServ-Codepoint marking

#### *WAN*

- ⌚ One 10/100M Base-TX Ethernet port
- ⌚ DHCP client for cable service
- ⌚ Static IP address assignment for fixed IP networks
- ⌚ PPPoE/PPTP client for ADSL service

#### *LAN*

- ⌚ 8 -port 10/100 Base-TX Ethernet switch with VLAN support
- ⌚ DHCP server , supporting up to 253 users simultaneously
- ⌚ DNS cache and proxy
- ⌚ NAT (Network Address Translation)
- ⌚ Virtual server via port redirection or open port
- ⌚ Port-based rate throttling capability
- ⌚ Routing protocol support: RIPv2, Static Route

#### *Printer Server*

- ⌚ One USB port connector
- ⌚ Built-in LPD printer server
- ⌚ Support for Win98/98SE/ME LPR printer driver
- ⌚ Compatible with Win2000/XP/MacOS 9/MacOS built-in LPR printer drivers

#### *Wireless Access Point (Vigor2900VG/VGi only)*

- ⌚ 802.11g wireless interface(54Mbps data rate)
- ⌚ Backward compatible with legacy 802.11b devices
- ⌚ Wireless security mechanisms:
- ⌚ Secure VPN over WLAN
- ⌚ WPA PSK and TLS support
- ⌚ 802.1x Authentication
- ⌚ 64/128-bit WEP encryption
- ⌚ MAC Address filtering and SSID stealth

#### *Flexible URL Content Filtering*

- ⌚ Preclude web surfing by blocking the use of IP addresses
- ⌚ URL blocking by user-defined keywords
- ⌚ Java/ActiveX/cookies/proxy blocking
- ⌚ Executable/compressed/multimedia files blocking
- ⌚ Time schedule support

#### *Application Support*

- ⌚ Windows Messenger, Yahoo Messenger, MSN Messenger V6.0, NetMeeting, ICQ2001b/2002a, most online gaming, and other multimedia applications
- ⌚ UPnP protocol support

#### *Router Management*

- ⌚ Web-based User Interface
- ⌚ Command line interface (Telnet)
- ⌚ Telnet remote access support and SNMP agent with MIB-II
- ⌚ Built-in diagnostic tools and Remote firmware upgrade
- ⌚ Quick Start Wizard and Syslog Monitoring