



Coral Version 15 Release Note

marketing notice

Product Notice Coral version 15 update

Product: Coral IPx update
Date: February 1, 2006
Issue: PN0206-0001

Tadiran Telecom is announcing the General Release of version 15 for the Coral IPx product line. This main software version brings new hardware, IP and maintenance functions to the Coral. This document is a summary of the releases. For a complete detail of all version 15 enhancements for the Coral, refer to the Coral 15.2x New Development Summary available in the Partner section of the Tadiran America web site (<http://www.tadiranamerica.com>).

Items mentioned in this document are supported initially version 15. Items that are not mentioned in this document but may be shown in other documents or programming or programming screens will be supported in later version of 15 or 15.5.

Minimum Hardware

To support version 15 in the Coral IPx or FlexiCom, the main central processor must either be a MCP-IPx2 in the Coral IPx 500, MEX-IP2 for the Coral IPx 800 or 3000 (or Coral FlexiCom 400HD or 5000; or Coral III 4GC), or MCP-ATS for the Coral IPx 5000 (or Coral FlexiCom 6000).

Coral SVC systems (including the Coral SL and 200), as well as older main processors (MSX, MEX-IP, MCPst and MCP-IP) will not support version 15.

The new Coral IPx Office also requires minimum version 15.

New Hardware

The major release for version 15 for the Coral IPx is the support of Session Initiated Protocol (SIP) and IP sockets. This will require additional memory for the system database. Tadiran Telecom is introducing new memory cards. These memory cards will not only support the database of the Coral but also new features such as Directory, Call Log, Internal Traffic, etc.

The new memory cards increase the Coral database memory in increments of 2, 4 or 8 Meg. The memory cards have a 3.5 VDC lithium battery to guard against database corruption during power outages.

A new Integrated Flash Memory card is also being introduced. This 16 Meg compact flash memory card is used to store not only the Coral IPx feature authorization, but it also stores saved databases that are greater than 2 Meg.

The mnemonic, part numbers and compatibility of the CPU's and memory cards is listed below.

Mnemonic	Part Number	8.XX to version 14.XX	15.XX
MEX-IP2	72449177100	X	X
MCP-IPx2	77449110200	X	X
MCP-ATS	72449163100	X	X
DBM2	77449103100	Not Supported	X
DBM4	77449104100	Not Supported	X
DBM8	77449105100	Not Supported	X
IMC8	72449191100	X	X
IMC16	72449192100	Not Supported	X



Coral Version 15 Release Note

marketing notice

PUGW and PUGWipx

With the introduction of SIP to the Coral, new call agent hardware was developed by Tadiran Telecom. This new IP call agent hardware allows simultaneous support for current FlexSet-IP and QNet IP protocols as well as SIP protocols on a single card.

The call agents are Peripheral Universal Gateway (PUGW). The PUGW card comes in both a full size and IPx 500 format card. The new PUGW cards are based on a Linux operating system also support modem and fax communications (conforming to the ITU T.38 standard).

The Coral IPx Office has an integrated PUGW card for VOIP support.

Along with these new call agents Tadiran Telecom is introducing a new line of Media Resource Cards. These MRC cards are daughter boards that are connected to the PUGW to convert from IP to traditional or TDM switching. Each MRC card handles a maximum number of TDM to IP conversion sessions.

The mnemonic, part number and compatibility of the new call agents for the Coral IPx is listed below:

Mnemonic	Part Number	Ver 14.XX	Ver 15.XX	SIP Support	MGCP Support (FlexSet-IP, QNET-IP, Coral Teleport, FlexSet-IP Soft Phone)
PUGW	77449223100	X (Note 1)	X	X	X
PUGWipx	77449205100	X (Note 1)	X	X	X
MRC8	72449279100	X (Note 1)	X	X	X
MRC16	72449280100	X (Note 1)	X	X	X
MRC32	72449281100	X (Note 1)	X	X	X
MRC64	72449282100	X (Note 1)	X	X	X

Note 1 - No SIP support in version 14.XX

Previous call agents (UGW, UGWips, UGW-E, UGW-Eipx) and media gateways (MG-15, 30, 60, 24, 48 and 72) are supported in version 15 but these components will not support SIP station or trunks.

Applications

Online Authorizations

Starting with Coral version 15 and the Coral View Designer (or Pro) application version 15, dealers will be able to change system feature and licensing authorization on Coral systems without the need for a system restart.

When dealers place orders for new authorizations or additional licenses on the Coral systems with Tadiran Telecom, Tadiran will email a ZIP file that shows the SAU number and date the file was created. Field technicians using this ZIP file will connect a laptop or PC to the Coral programming port and start the CVD application. Once connected to the Coral, using the OLA feature of the CVD, technicians will be able to show current authorization or update authorizations in the running Coral. They will also be able to create a text file showing a side-by-side comparison of the current and new feature and licensing authorizations.

Coral Fault Manager

The Coral Fault Manager is a diagnostic system that is used to detect Coral faults and errors as they occur within the Coral. The fault reports can be configured to detect any type of Coral alarm or fault. Corrective measures are suggested by the detailed report to enable simple trouble shooting. Because the system is Web based, the Corals may be serviced from any location in the world.

The system is comprised of servers and workstations using SNMP (Simple Management Network Protocol) communication. On the server of the Coral Fault Manager, a SNMPc product from Castle Rock must be installed. This software is available for order on the Internet at <http://www.castlerock.com/>.



Coral Version 15 Release Note

marketing notice

When a fault is detected at one of the systems, the fault alarm is forwarded to the central CFM server. It can be viewed on a workstation screen, where a map of the different Coral systems is displayed. The faulty system is highlighted in color to indicate that it requires attention.

Internal Traffic

A new internal traffic facility has been added to Coral Main Software, Version 15.xx. The feature is used to collect, monitor and store Coral system traffic details on selected Coral entities such as Stations and trunks. This feature may require the installation of an extra memory card (DBM or XMM) to support its memory requirements.

The events can be collected on a daily basis for a maximum of 7 days. The technician defines the start time for each day or set of days. The reports are built and configured via the programming port of the Coral per the customer requirements. The Coral allows the technician to create a maximum of 10 different reports and offers 5 prefabricated reports ready for use.

The internal traffic captures feature activation by station, trunk; library activation; as well as station/trunk events and times. A list of supported items is listed below:

Feature	Station	Trunk	Trunk Groups	Hunt Groups	Boss Groups	Library	Wait Queue
Call Forward All	X			X	X		
Call Forward No Answer	X			X	X		
Do Not Disturb	X				X		
Executive Privilege	X						
Direct Pickup	X			X	X		
Silent Monitor	X	X					
Divert Call	X	X					X
FlexiCall	X						
Freedom	X						
Trunk Incoming Call	X	X	X	X	X	X	X
Trunk Outgoing Call	X	X					
Internal Incoming Call	X	X	X	X	X	X	X
Internal Outgoing Call	X	X					
Library Access						X	
Busy	X	X	X	X	X		
Not Answered Call	X			X	X		X
Hang Up Call	X			X	X		X
Call Time	X	X					X
Wait Time for Answer	X			X	X		
Above Average Call Duration	X	X					
Unusual Call Time	X	X		X	X		X
Above Average Wait Time for Answer	X						
Constantly Connected Port	X	X					
Trunk Overflow		X					
Intercept Call	X	X					
Undefined Port	X	X					



Coral Version 15 Release Note

marketing notice

Coral Feature

Continuous Conference Feature Code

Starting inversion 14.67, a new feature was introduced to the Coral. This feature allowed existing 3-way conferences to be automatically transferred to a free conference bridge when additional conference parties were added (using normal Xfer/Conference feature). In this Coral Version, the station user can have one pre-programmed key used for creating multi-party conference calls while the standard transfer key can be reserved for use as any of the other possibilities.

Also in version 15, a new system option is available that controls which person in the conference call set up a continuous conference, the originator or any member of the conference.

IP Enhancements

Sentinel Pro

The Sentinel Pro is a new Coral entity that supports up to 300 IP endpoints, as well as up to 100 concurrent RTP. The Sentinel endpoints may consist of any of the Coral's legacy IP phones such as a FlexSet-IP 280 or Softphone, all types of SIP entities (phones, trunks, station and office gateway units), as well as Coral Teleport FXS/FXO gateways.

The Sentinel Pro is required to enable IP endpoints that are remotely located behind a NAT Server to transverse the NAT.

The Sentinel Pro is also ideal for use in conjunction with firewalls that do not perform stateful inspection. A large amount of endpoints require opening only one pinhole in the firewall for the Sentinel Pro. Additionally, when the endpoints are located behind the same NAT, a local RTP session can be created between the remote IP endpoints by the Sentinel Pro, thus freeing up Sentinel RTP resources.

IP Zone Enhancements

Coral Version 15 has enhanced the IP Zone distribution as well as increased its capacity. In previous Coral Versions, the UGW was allowed to define a maximum of 8 zones (0 to 7) per UGW card. Starting in version Coral version 15, the number of Zones has been increased to a maximum of 32.

SIP

Starting with version Coral version 15 and the new PUGW gateways, the Coral supports Session Initiated Protocol or SIP. Session Initiation Protocol (SIP) is a signaling protocol for initiating, managing and terminating voice and video sessions across packet networks. SIP is an independent packet switching protocol similar to HTTP. SIP endpoints send requests and acknowledgment messages to initiate and create communications sessions. SIP protocol can be compared to two telephones communicating via email, such as a chat session: "Let's Talk", "OK". The protocol was designed to accommodate intelligent endpoints consisting of one or more media types (audio, video, chat, pictures, MIME objects).

With SIP protocol, the PUGW card in the Coral acts as the SIP Proxy, Registrar and MWI Message server.

SIP Station

The Coral with version 15 and PUGW support the SIP-16 standard. The 16 means 16 basic functions are supported by the SIP standard in the Coral. These functions include Make Call, Hang Up Call, Message Waiting Indicator Set, Message Waiting Indicator Cancel, Transfer Call, Hold Call, Call Forward All, etc.

SIP is an independent signaling protocol and many manufacturers interpret the messaging in many ways. Not all SIP Station devices that claim they are SIP compliant, work in the same fashion. Many use private extensions available in SIP to do certain functions. Also, many SIP station function differently from manufacturer to manufacturer. For instance to do a transfer using manufacturer "A" SIP telephone, is different than doing a transfer using manufacturer "B" SIP telephone. Because of this not all Coral features are supported on SIP telephones.

Tadiran Telecom is putting together a list of certified SIP digital telephones that work with the Coral. This list will be updated and posted on the Tadiran America web site.



Coral Version 15 Release Note

marketing notice

Not only does the Coral support the basic SIP-16 features, but there are many features the Coral supports when the SIP telephone is in an idle mode. All of the Coral features are accessible by a dial code. These supported features include:

Feature Description	Dial Code	Feature Description	Dial Code
Account Code	# 1990	Hot Station Immediate	# 166
Attendant Message Waiting	# 156	Hot Trunk Delayed	# 161
Busy Out - Trunk	# 155	Hot Trunk Immediate	# 160
Call Charge Print	# 1972	Incoming Only - Trunk	# 158
Call Charge Reset without Print	# 1978	Large Conference - Force Release Participant	# 1446
Call Forward Busy - Station	# 140	Last Number Redial	# 143
Call Forward All - ATT	# 168	Load ID (ACD)	# 1973
Call Forward All - External - ATT	# 17707	Login/Logout (ACD)	# 1974
Call Forward All - External -Station	# 17702	Malicious Call Trace	# 1740
Call Forward All - Station	# 141	Malicious Call Trace - ATT	# 1742
Call Forward Busy - ATT	# 167	Malicious Call Trace Print	# 1741
Call Forward Busy - External - ATT	# 17706	Malicious Call Trace Print - ATT	#1743
Call Forward Busy - External - Station	# 17701	Message	# 175
Call Forward Busy/No Ans - External - Station	# 17705	Message Cancel	# 1440
Call Forward Busy/No Answer	# 147	Night Answer Bell /UNA Pickup Group	# 192
Call Forward No Ans - External - ATT	# 17708	Night1/Day Transfer	# 185
Call Forward No Answer - External - Station	# 17703	Night2/Day Transfer	# 184
Call Forward No Answer - Station	# 142	Originating Only Station	# 151
Call Forward Timed - ATT	# 1984	Outgoing Station Restriction	# 154
Call Forward Timed - External - ATT	# 17709	Party Information on Ports	# 1987
Call Forward Timed - External -Station	# 17704	Passcode Change	# 179
Call Forward Timed - Station	# 1985	Phone (Dial) Lock	# 148
Call Forwarded No Answer - ATT	# 169	Port Information	# 1986
Call Park	# 183	Primary Login (ACD)	# 1442
Camp On (Call Back)	# 176	Privacy (Boss Group)	# 186
Check In/Out	# 1970	Private Library Programming	# 193
CO Block	# 157	Public Library Programming	# 194
Conference Release/Inspect	# 1983	Redial Saved Number	# 196
COS Switchover	# 149	Release/Resume All (ACD/UCD)	# 1975
Data Line Security	# 17700	Reminder	# 172
Day/Night Transfer (Auto/Manual)	# 1993	Reserve Trunk by ATT	# 159
DC No Call	# 1989	Room Status 0-15 - ATT	# 7010-7025
Direct In-Line: Day	# 164	Room Status 0-15 - Station	# 7026-7041
Direct In-Line: Night 1	# 163	Self Release/Resume (UCD)	# 1991
Direct In-Line: Night 2	# 165	Series Destination	# 195
Directed Pickup	# 180	Station Blocking	# 153
Do Not Disturb - ATT	# 1999	Terminating Only Station	# 152
Do Not Disturb/Unattended	# 145	Time and Date Setting	# 188
Drop No Dial	# 162	Trunk Auto Guard	# 1998
Dump	# 1988	Trunk Outgoing Only	# 190
Exclusive Hold (Boss Group)	# 187	Unattended Station Destination	# 146
Executive Privilege	# 170	Voice Page	# 191
Follow-Me	# 189	Wakeup	# 173
Follow-Me External - Station	#17713	Wakeup - ATT	# 1980



Coral Version 15 Release Note

marketing notice

Freedom (IRSS)	# 17714	Wakeup Report	# 1971
Group Call - Release All	# 1447	Whisper Page - Do Not Disturb	# 1745
Group Pickup	# 181	Wrap Up Code (ACD)	# 1977
Hot Station Delay	# 182	Wrap Up Time (ACD/UCD)	# 1976

There are certain station and general system features that are not available to SIP stations in version Coral 15. These include:

Station Feature Description	Feature Code and Remarks
Program Key	#139 included in SIP phones with programmable buttons
Audio in HeadSet	#1302
Auto Set Relocate	(Portability) Not Available
FlexiCall	#17710
Freedom	#17714
Languages	#1328 Not Supported
Hold	#171 Hold feature can be controlled by the SIP phone or by the Coral, depending on the SIP model.
Auto Redial	#178 included in most SIP phones
Silent Monitor	#1981
Split Silent Monitor	#1448
Zone Page 7300-7039	A SIP phone cannot be a Zone Page Group member
Voice Page 7074-7039	A SIP phone can page other phones. Other Coral stations cannot page a SIP phone.
General Features Not Supported	
QSIG Rerouting	Not Available
Path Replacement	Not Available
CLA Services	Not Available

SIP Trunk

SIP Protocol is identical for SIP terminals and trunks. The SIP trunks essentially serve as gateways that enable connections between the Coral and other standard SIP gateways. The trunks, therefore, also enable the Coral to receive SIP calls from other SIP gateways or terminals.

The SIP trunks can be either be registered or unregistered trunks in any one of the following manners:

- Registered Trunks: are dedicated trunks per SIP entity. These trunks remain in idle state after they initialized and are registered. A keep alive signal continues to be sent from the trunk at pre-defined intervals ensuring the trunk's idle state.
Examples of registered SIP Trunks may include External Gateways, FXO Teleport units MP-10x and MP-11x (x=4/8)

This is the most secure type of Coral SIP trunk.

- Unregistered SIP Trunks: are virtual SIP trunks. These SIP trunks are registered with the Coral, via a Dial Service that includes the destination SIP trunk IP address. The trunks can initialize opposite any endpoint that requires SIP trunk services.

The trunks remain in idle state, until they are needed, at which point the Coral searches for the SIP trunk IP address in its list of dial services. Once the trunk's IP address is found, it may initialize/register opposite the endpoint and receives a SIP trunk from any free PUGW channel.

Examples of unregistered SIP Trunks may include Service Providers over IP (SIP) or a SIP Trunk between two Corals.



Tadiran Telecom

Coral Version 15 Release Note

marketing notice

If you have questions on this, feel free to contact the marketing department at (516) 632-7200.

Voice: 516.632.7200
Email: marketing@tadiran-us.com

Tadiran Telecom, Inc.
4 Tri Harbor Court
Port Washington, NY 11050