

Features & Technical Specifications



Station Features

Abbreviated/Speed Dialing
Account Codes
ACD Agent Logon Button
ACD Agent Status Buttons
ACD Group Service Button
ACD Group Status Display
Add-on Conference
Alarm Clock
 Local
 Remote
All Call Announce
All Call Announce Pickup
Answer
Audible Call Indicators
Automatic Call Transfer
Automatic Hold Recall
Background Music
Break-In
Broker's Hold
Busy Extension Button Hunting
Busy/No Answer Intercept
Busy Override
Busy Prime Line Indication
Button Change
Button Hunting
Call Announce
Call Announce Privacy
Call Announce Transfer
Call Duration Display
Call Forward
 Busy/Don't Answer
 Don't Answer
 Follow Me
 Outside the System
 Local
 Remote
Call History
 Answered
 Outgoing
 Missed
Call Park, Answer & Identification
Call Pickup
Call Queue Query
Call Transfer
Called Party Identification
Caller ID Blocking/Unblocking
 Calling Party
 Called Party
 Override
Camp-on
Cancel
Class-of-Service Change
Clear Active Features
Conference
 Add-on
 Cancel
 Isolate
 Meet-Me
 Music-on-Hold
 Query
Dial Access
Dial Access for Remote Extensions
Direct Extension Selection

Direct Ring Prime
Directed Call Pickup
 All Call Announce
 Group Call
 Page
 Park to Station
Disconnect Tone
Display Wrap
Do-Not-Disturb
Feature Buttons
Group Listen
Ground Recall
Headset/Handset Operation
Hold
 AA Hold of Busy Tone
 Conference Hold
 System Hold
 Transfer Hold
Intercom
 Hot Line
 Meet-Me Conference
 Secretarial
Message Send/Message Retrieve
 Message Cancel
 Message Waiting
 Voice Mail
 Page Messaging
Monitor
Music
 Conference Music-on-Hold
 Music-on-Hold
 Telephone Background Music
Night Service
 Night Answer
 Night Transfer
Override
Paging
Park Display
Parked Call Indication
Park to Station
Personal Preferences Setup
Personal Speed Dialing Directory
Privacy
Problem Circuit Tagging
Pushbutton Dial
Redial
 Last Number Redial
 Stored Number Redial
Release
Remote Call Pickup
 General Remote Call Pickup
 Group Remote Call Pickup
Repertory Dialing
 Personal
 System
Session Initiation Protocol (SIP)
Speakerphone
System Alarms
Transfer
Visual Call Indicator
Voice Mail Access
Trunk Features
Analog Loop-Start Trunks
Analog Nailed-Up Circuit

Analog Port Impedance Match
ANI and DNIS Service
Automatic Call Distribution
Automatic Route Selection
Auto-Transfer of Trunk Calls
Caller ID Translation
D-Channel Backup
Digital Announcer Support
Digital Direct Inward Dialing
Digital E&M Tie Lines
Digital Ground-Start Trunks
Digital Loop-Start Trunks
Digital ISDN Trunks
Digital Off-Premises Stations
Direct Department Calling
Direct-In Line
E1 Trunks
Hookswitch Flash Pass Through
Individual Trunk Access
Information Digits on T1/E1 ANI
ISDN PRI Integration
IP-QSIG Trunks
Least Cost Routing
Loop-Start Trunk Disconnect
Loop-Start Trunk Wink Seizure
Message Send/Message Cancel
Message Send Page Access
MF Outdial on Analog Trunks
Multiple Trunk Groups
Nailed-up Data Connection
Name Delivery on ISDN
Network Redirection
Non-Facility Associated Signaling
Overlap Dialing
PRI Call-by-Call Service Selection
Priority Queues
Public/Private Numbering Plan
Remote Access (DISA)
Senderized Dialing
T1 Trunks
T1/E1 DID Digit Collection
T1 Multiple Channel Restart
Tie Trunks (Digital)
Toll Restriction
Toll Restriction Override
Traffic Measurement
Trunk-to-Trunk Connect
Trunk Route Advance
Trunk Route Queuing
Trunk Routes
ISDN PRI Protocols
 DMS-100
 DMS-250
 4ESS
 National ISDN
 Euro-ISDN
 QSIG
System Features
ACD Agent Pin Numbers
ACD Group Status Display
ACD Group Intercall Timing
ACD Reports Language Choice
Alarm Indicators
Alphanumeric Page Messages

Announcer Ports
Audio Level Control
Authorization Codes
Auto Answer
Automated Attendant
Automatic Conference Teardown
Automatic Station Hunt
Backup Battery External Support
Busy/Don't Answer Intercept
Call Accounting System Support
 ACD Reports
 Call Duration Timer
 Call Handling Reports
Call Announce
Call Queue Query
Call Queuing
Call Routing Plans
Call Screening
Caller ID
Classes of Service
CTI Integration – CSTA, TAPI, TSAPI
Database Backup
Date/Time Set from External Time Server
Daylight Savings Time
Diagnostics
DTMF Signaling
Digit Collection & Processing
Distinctive Ringing
External Paging Interface
Feature Grp. B & D Switched Access
Flexible Numbering Plan
Forced Disconnect On Termination
GUI System Administration
ICLID Delivery of DID/DNIS
Intercom
Intercept
Monitor Zones
Multiple Attendant Positions
NANP Compatible
National ISDN B-Channel Mgmt.
Network Address Translation (NAT)
Network Message Waiting Indication
Night Service
 Display
 Zones
Off-Premises ACD Agents
Off-Premises Station*
Originating Line Information
Overlap Dialing
Override/Busy Verification
Page Tone
Prime Extension Assignments
Private Lines
Programmable Line Selection Modes
Programmable Tones
Protected Stations
Quality of Service (QoS)
RPD Support for PC Interfaces
Recall
Receiver Off-Hook (ROH) Intercept
Remote Programming & Diagnostics
Remote System Extensions
Resources Queuing

Result Codes
Second Call Indication
Session Initiation Protocol (SIP)
Sigbus and Event Monitoring
Simple Traversal of UDP thru NATs
Station Hunting
Station Message Detail Recording
SMDR for Private Caller ID
SMDR for Extensions
System Clock
System Repertory Mode Button
System Security
System Timers
System Tones
Translate Tables
Unified Communications
 Messaging
 Unified Messaging
 Presence & Availability Tools
 Mobility Applications
Used Digits Listing
User Mnemonics
Voice Mail IP Integration
eNterprise IP Telephones
Audible Call Indicators
Automatic Set Relocation
Button Banks
Button Expansion Module (BEM)
Browser Configuration Tool
Call Duration Display
Incoming Call Indicator
2 x 20 or 4 x 20 Backlit Display
Handsfree Operation
Headset Jack
Hot Keypad
Line Selection
Message Waiting Lamp
Optional AC Power Adapter
Personal Preference Setup
IEEE 802.3af Power over Ethernet
Pushbutton Dial
Dynamic (DHCP) or Static Address Assignment
10/100 MB Switch Ethernet Ports
Single-Line Telephones
Auto Attendant Ring Cadence
Direct Trunk Access
FLASH Button Option
Line Selection
Message Lamp Option (FSK)
Message Notification Audible
Multi-button Access
Second Call Indication
Second Station Monitoring
3rd-Party SIP Devices**
Calling Party Name
Calling Party Number
Answer
Hold
Transfer
Message Notification
Conference
System Dial Access Codes

eConn IP-PBX System Capacities

Ports	1500
Physical Locations	1500
Programmable Logical Locations	1500
Maximum Number of Simultaneous Calls	750
Maximum Number of IP Telephones	988
Maximum Number of IP-QSIG Trunks	988
Maximum Number of ACD Agents	576
Maximum Number of Analog Stations	156
Maximum Number of Analog Trunks	208
Maximum Number of T1 Spans	16
Maximum Number of E1 Spans	16
Conference Channels (IP and Analog Devices)	256
Maximum Echo Canceller Channels for TDM Calls	400
Tone Generators for G.711 Devices	1000
DTMF Receivers for Simultaneous Calls	400

Traffic and Performance Specifications

Criteria	Result
Busy Hour Call Completions ¹	40,000 BHCC
Response Time Specifications	Delay to Dial Tone <1 s Dial Tone Cut Off Delay <500 ms Post Dialing Delay <1.5 s Connecting Delay <400 ms
Data Blocking Possibilities ²	Software <0.0001 Blocking Possibility

Notes: ¹The BHCC will vary according to individual customer configuration and usage.

²Licensing and trunks provisioning dependent.

Supported TDM Interface PCIe Cards

Analog Station/FXS PCIe Board (HMP)

- Available in densities 4, 8, and 12 analog station circuits; software license enabled.
- Superior host-based echo cancellation and RTP packetization for analog to IP gateway applications.
- All signal processing applications such as conferencing and echo cancellation are performed on the host processor, rather than on-board DSPs.
- Software programmable to interface with North American or European telecom standards.
- Ringer equivalence number (REN): 1

Analog Trunk/FXO PCIe Board (HMP)

- Available in densities 4, 8, 12 and 16 analog trunk circuits; software license enabled.
- All signal processing applications such as conferencing and echo cancellation are performed on the host processor, rather than on-board DSPs.
- Capable of providing combinations of loop start and passive/high impedance logging of analog line circuits.
- Board enables voice and fax services by way of connectivity to TDM and IP networks.
- Software programmable to interface with North American or European telecom standards.
- Ringer equivalence number (REN): 0.1B

T1/E1 Digital Trunk PCIe Board (HMP)

- Each card provides a solution for voice and data applications with 1 to 4 spans available for use with T1 or E1 connectivity; software license enabled.
- Each span can be configured with individual T1/E1 framing and line coding, ISDN PRI protocol type, and non-facility associated signaling (NFAS) group assignments.
- All digital signal processing is done on the host processor.
- Supports total bandwidth of up to 6.176 Mb/s in T1 mode and up to 8.192 Mb/s in E1 mode; 8.192 MHz span-multiplexed local TDM bus (128 timeslots).
- Dual reference phase-locked loop (PLL) for line clock referencing, control and monitoring.
- Maximum number of T1/E1 clock sources per board is two; each T1/E1 board derives its clock source(s) independently.

Frame Mode

- T1: Extended Superframe, D4
- E1: Double Frame, CRC Multiframe

Line Coding

- T1: B8ZS or AMI ZCS
- E1: HDB3

Signaling

- T1: Robbed-Bit
- E1: Channel Associated

Protocol Variants

- 4ESS, DMS-100, DMS-250, National ISDN, Euro-ISDN, QSIG



Hardware Specifications eConn Server Expansion Cabinet

Dimensions

Height	4U	4U
Width	19"	19"
Depth	22"	22"
Weight	42.8 lbs	40 lbs

System Input Power Requirements

Input/Disconnect	IEC320-C14 Class 1 AC Receptacle	IEC320-C14 Class 1 AC Receptacle
Input Voltage	100 - 240 VAC	100 - 240 VAC
Frequency Range	50 / 60 Hz	50 / 60 Hz
Input Power	650W	450W
AC Source	90 - 264 VAC	90 - 264 VAC
Frequency Range	47 - 63 Hz	47 - 63 Hz

Operational Environment

Temperature	50° to 95° F	50° to 95° F
Humidity, non-condensing	8% to 90%	8% to 90%

Configuration

Universal PCIe Slots	7	7
Processor, minimum	Intel Quad Core Xeon 1336	
Hard Drive, minimum	2 160 GB SATA Raid Drives	
Memory, minimum	3 GB RAM	
Operating System	Linux 2.6; CentOS Linux 5 Distribution	



Feature Capacities⁴

ACD Agents	576
ACD Groups	100
Alarm Clock Messages	10
All Call Announce Zones	12
Announcer Ports	128
Messages	32
Profiles	64
Business Department Numbers	16
Call Duration Display	999:59
Call Park Zones	32
Call Routing Plans	64
Digit Translation Tables	50
DND Messages	10
General User Mnemonics	10,000
IP Codecs	3
G.711 Mu-Law/A-Law	
G.729 A/B	
IP-QSIG Nodes	512
LCR Class Marks	16
Manual Intercom Buttons	4095
Mobile Twinning	19 Devices ⁵
MOH Messages	10
Music Source Input Sources	2 Audio Files
Personal Speed Dial Numbers	255
Maximum Digits Each	48
PRI spans in NFAS group	5
Recall Destinations	6
Remote Call Pickup Groups	64
Remote System Extension Groups	50
Special Day Call Routing Plans	32
Station Class-of-Service Tables	100
Station Hunt Groups	64
Members Each Group	128
Total Members	576
Station Profiles	
IP Telephones	100
Single-Line Telephones	100
T1/E1 Stations	100
Trunk Class-of-Service Tables	50
Trunk Groups (Trunk Routes)	64
Trunk Profiles	
Loop-Start Trunks	100
DID Trunks	25
T1/E1 Trunks	100
System Speed Dial Numbers	1024
Max. Digits Each Number	46
Station Programmable Buttons	
Single-Line Telephone	254
eNterprise IP 22-Button Telephone	22
Plus 1 BEM	70
Plus 2 BEMs	118
Plus 3 BEMs	166
Plus 4 BEMs	214
eNterprise IP 32-Button Telephone	32
Plus 1 BEM	80
Plus 2 BEMs	128
Plus 3 BEMs	176
Plus 4 BEMs	224

Telephone Loop Limits

Single Line Telephones

- 4,000 ft (1219 meters); based on #24 AWG station wire. System is AC powered and telephone is line powered. This includes commercial AC power and UPS backup power.

eNterprise IP Telephones

- IP telephones can be located anywhere there is an IP network connection. CAT 5 supports a single run of 100M without additional equipment.

eNterprise IP Telephone Dimensions

eNterprise 22-Button IP Telephone	8" W x 7 1/2" D x 2 1/2" H
eNterprise 32-Button IP Telephone	8" W x 7 1/2" D x 2 1/2" H
eNterprise Button Expansion Module	8" W x 7 1/2" D x 2 1/2" H

Recommended 3rd-Party SIP Devices³

Wireless Phones

- Ascom i75 VoWiFi
- Snom m3 DECT
- Linksys WIP330 WiFi

Desktop Phones

- Yealink SIP-T22P
- Yealink SIP-T20P

Softphones

- SJ Labs SJphone
- CounterPath X-Lite & eyeBeam

Analog Terminal Adapter

- Cortelco ATA821121

Product Regulatory Certifications

4U Server and Expansion Cabinet

FCC, CE, EIA-RS310D, RoHS

Equipped with Power Supply

cUL, CD, FCC, RoHS

Hard Drive

UL, CSA, CE, MIC

DVD Drive

cUL, CE, MIC

Analog Station/FXS PCIe Board (HMP)

CSA/NRTL, FCC Part 15, RoHS

Analog Trunk/FXO PCIe Board (HMP)

CSA/NRTL, FCC Part 15, FCC Part 68, CS-03, RoHS

T1/E1 Digital PCIe Board (HMP)

CSA/NRTL, FCC Part 15, FCC Part 68, CS-03, RoHS

Notes:

* Analog set lines extending outside the building in which the system is installed must be protected on both PBX and analog telephone ends by a primary and secondary protector.

**3rd-Party SIP device refers to a SIP-compliant softphone, desktop phone, wireless phone, terminal adapter or other device. Although SIP is a standard, various manufacturers have chosen SIP implementations that are not always fully compatible. Please refer to the manufacturer's user guide for features supported locally on the device.

³ Additional SIP devices are supported and can be found by searching online. If you wish to use a 3rd-party SIP device not listed here, then we recommend contacting eOn Technical Support at 1-877-CALLTECH to verify compatibility and thoroughly testing the device with the system before committing to its use.

⁴ Some eConn IP-PBX features have maximum capacities that are dependent on system software, configuration or equipment installed.

⁵ For mobile twinning, the system can simultaneously ring up to 19 mobile devices or landline phones (PSTN) per desktop phone, in addition to a chain of extension appearances on other internal devices.

