



Iwatsu **ENTERPRISE-CS**

▶ **General
Description**



icon voice networks

IWATSU ENTERPRISE-CS General Description

SPECIAL NOTICES

If the System is equipped with Telephony over Transmission Control Protocol/Internet Protocol (TCP/IP) and Session Initiation Protocol (SIP) wired and/or wireless facilities, the user may experience certain compromises in performance, reliability and security due to transmission facilities QOS and bandwidth problems, even when the Equipment performs to the specification.

USER(S) ACKNOWLEDGES THAT THEY ARE AWARE OF THESE RISKS AND THAT THEY HAVE DETERMINED THESE RISKS ARE ACCEPTABLE FOR THEIR APPLICATION OF THE EQUIPMENT. USER(S) ALSO ACKNOWLEDGE(S) THAT THEY ARE SOLELY RESPONSIBLE FOR ENSURING THAT THEIR NETWORKS AND TRANSMISSION FACILITIES QOS AND BANDWIDTH ARE ADEQUATE FOR THE PURPOSE INTENDED AND THEIR NETWORKS AND TRANSMISSION FACILITIES ARE ADEQUATELY SECURED AGAINST UNAUTHORIZED INTRUSION.

TOLL RESTRICTION

The Toll Restriction feature of the Iwatsu Enterprise-CS system is one method of preventing fraud (i.e., the making of unauthorized toll calls) by users of the system. The chance of fraud may be reduced but may not be eliminated. Only a complete program which includes but may not be limited to inspection of telephone call billing, use of call detail recorders, and other such devices, systematic monitoring of all telephone call activity, and implementing corrective measures can minimize the possibility of fraud. ICON Voice Networks and/or its Third Party manufacturers / suppliers hereby disclaim any express or implied warranty that its equipment is technically immune from or prevents unlawful and/or unauthorized utilization that may result in unauthorized toll calls. ICON Voice Networks hereby warns Dealer and User that such is possible.

DISA

The Direct Inward System Access (DISA) feature, with the ability to allow outside parties to connect to the internal services of Iwatsu Enterprise-CS, may provide a means for fraudulent calls to occur. Only a complete program which includes, but may not be limited to, inspection of telephone call billing, use of call detail recorders, and other such monitoring devices, systematic monitoring of all telephone call activity, frequently changing DISA authorization codes, and implementing corrective measures can minimize the possibility of fraud. ICON Voice Networks and/or its Third Party manufacturers/suppliers hereby disclaim any express or implied warranty that its equipment is technically immune from or prevents unlawful and/or unauthorized utilization that may result in unauthorized calls. ICON Voice Networks hereby warns Dealer and User that such is possible.

Use of Call Recorder, Station Monitor, Station Coaching and Voice Mail Record

In certain states it is illegal to intercept, listen to, and/or record telephone calls. In certain states and under certain circumstances it is illegal to intercept for the purposes of listening in and/or recording telephone calls. Because such activity is not illegal in all jurisdictions and may be permitted in training and/or monitoring of personnel, this telephone system can be programmed to permit interception, listening to, and/or recording with or without warning to those on the line. Before utilizing the system for such purposes, you are advised to confirm the laws of the jurisdiction in which you utilize such features(s). ICON Voice Networks and/or its Third Party manufacturers/suppliers disclaim any responsibility for improper or illegal use of the Call Record, Station Monitor, Station Coaching, and VM Record Feature and disclaim any obligations to render legal advice concerning this feature.

Support of Enhanced 911

In order to comply with regulations for support of Enhanced 911 service that may be in effect in the local jurisdiction that the Iwatsu Enterprise-CS system is installed, the Iwatsu Enterprise-CS provides for Enhanced E911 support by either using optional third party equipment, or configuring the system to use assigned telephone numbers (ANI) for defined areas, or a station or group of stations. The Dealer and User are hereby warned to check local laws as to Enhanced 911 support requirements, and that the configurations of the Iwatsu Enterprise-CS not contravene any such statutes, and to properly warn the End User (Purchaser) of the Iwatsu Enterprise-CS of the possible legal implication of the use of this feature.

Electrical Safety Advisory

It is recommended that an AC surge arrestor of the form and capacity suitable for the model of Iwatsu Enterprise-CS purchased be installed in the AC outlet to which the system is connected.

Music-On-Hold

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This manual was written for Iwatsu ECS systems with version 11 software. In some cases, available feature operations may differ from those listed in this manual, depending on the hardware, software and programmed functions in your Iwatsu Enterprise-CS. For more information contact your ICON Voice Networks Dealer.

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Note: .The UL model name for the Iwatsu Enterprise-CS is ADIX-ECS.

Part Number: 108655

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Section 1 –

System Specifications

FCC Registration and Requirements

INSTRUCTIONS TO THE USER

The Iwatsu Enterprise-CS line of digital telecommunications systems has been registered and approved by the Federal Communications Commission (FCC) for direct connection to your local telephone service. In accordance with FCC rules and regulations regarding telephone equipment, Iwatsu is required to make you aware of your rights and obligations regarding the use of this equipment. In order that we may fulfill our obligations, please take a moment to carefully read the rules and regulations contained herein that apply to you.

FCC Rules and Regulations

(1) Notification to the Local Telephone Company

The local Telephone Company may request specific information about the Iwatsu Enterprise-CS before connection can be made to the local Telephone Company lines. When requested by the Telephone Company, the following information should be provided:

- a) The FCC Registration Number for all equipment connected to an individual line.
- b) The largest Ringer Equivalence Number (REN) for each line.
- c) Information required for compatible operation of the equipment with the Telephone Company communication facilities. The FCC Registration Number and Ringer Equivalence Number (REN) are printed on the equipment label located on the common equipment cabinet of the system (IX-CME). The largest Ringer Equivalence Number is the sum of the Ringer Equivalence Number (REN) of each FCC registered device that is connected to the same line. The maximum Ringer Equivalence Number that can normally be used without causing faulty operation is 5.0. Check with your local Telephone Company to determine the maximum Ringer Equivalence Number for the telephone lines you are using. In order to connect registered terminal equipment to the Telephone Company lines, the terminal equipment must utilize an FCC “standard means of connection”, often referred to as a “registered jack”. The type of jack utilized on the Iwatsu Enterprise-CS is identified by a USOC code number. Different code numbers are utilized for the various types of services provided by the Telephone Company that the systems use. When requesting new telephone service, the Telephone Company must be informed of the code number for each type of service. The Iwatsu Enterprise-CS can be configured as either a Private Branch Exchange (PBX) - Fully Protected, Key Telephone System - Fully Protected or a Multi-Function (Hybrid) System - Fully Protected. For your convenience, the following are the codes and registration numbers applicable to Iwatsu Enterprise-CS equipment:

	FCC Numbers
	ECS
Key Telephone System - Fully Protected	US:BD6KF10BIWATSU1
Multi-Function (Hybrid) System - Fully Protected	US:BD6MF10BIWATSU1
PBX - Fully Protected	US:BD6PF10BIWATSU1

Your Iwatsu telephone may contain a wireless Bluetooth module which carries an FCC ID number of BD6BTINF.

The Iwatsu Enterprise-CS is FCC, Part 68, registered as a fully protected telephone system. The following information must be provided to the local telephone operating company when requesting service terminating to the Iwatsu Enterprise-CS:

LOOP START TRUNK

Ringer Equivalence No 0.5B
Service Order Code 9.0F
Facility Interface Code . 02LS2
Registered Connection. RJ21X

GROUND START TRUNK†

Ringer Equivalence No 1.0B
Service Order Code 9.0F
Facility Interface Code . 02GS2
Registered Connection. RJ21X

CALLER ID TRUNK

Ringer Equivalence No 0.5B
Service Order Code 9.0F
Facility Interface Code . 02LS2
Registered Connection. RJ21X, RJ11*

E&M TIE LINE CARD

TYPE 1
Facility Interface Codes TL31M
Service Order Code 9.0F
Registered Connection. RJ2GX
TYPE 2
Facility Interface Codes TL32M
Service Order Code 9.0F
Registered Connection. RJ2HX

T-1 SERVICE (SF)

Facility Interface Code .04DU9-BN
Service order Code 6.0P
Registered Connection RJ48C

T-1 SERVICE (ESF)

Facility Interface Code 04DU9-1KN
Service order Code 6.0P
Registered Connection RJ48C

DID TRUNK*

Facility Interface Code 02RV2-T
Ringer Equivalence No. 0.0B
Service order Code 9.0F
Registered Connection RJ21X

OPS LINE CARD

Facility Interface Codes. OL13C
Service Order Code 9.0F
Registered Connection RJ21X

ISDN BRI CARD

Facility Interface Codes. 02IS5
Registered Connection. RJ49C#

ISDN PRI CARD

Facility Interface Codes. 04DU9-1KN
Registered Connection. RJ49C or RJ48X

NOTE:

* Check with local utility or service provider for type of connection allowed.

† Not available for US:BD6KF10BIWATSU1 registration applications.

NT1 required.

(2) Restrictions on the Use of Registered Telephone Equipment

FCC rules governing customer owned telephone equipment specifically exclude the use of the Iwatsu Enterprise-CS on public coin telephone (payphone) lines. The connection to party line service is subject to local state tariffs. Contact your state public utility, public service commission or corporate commission for information on this.

(3) Incidence of Harm

If for some reason the Iwatsu Enterprise-CS causes harm to the Telephone Company network, the Telephone Company will notify you in advance that temporary discontinuance of service may be required. In the event advance notice is not practical, the Telephone Company will notify you of the interruption of service as soon as possible. Also, the Telephone Company will advise you of your right to file a complaint with the FCC if you believe it is necessary. The Telephone Company may also make changes in its facilities, operations or procedures that could affect the operation of your system. If this occurs, the Telephone Company will provide advance notice in order for you to make the necessary modifications to maintain uninterrupted service.

(4) Hearing-Aid Compatibility

The Iwatsu Enterprise-CS, utilizing telephone station equipment manufactured by Iwatsu, meets all FCC requirements for hearing-aid compatibility.

(5) Instruction Regarding the Repair and Refurbishment of Registered Equipment

Only the manufacturer or its authorized agents are permitted under FCC rules to make other than routine repairs to registered telephone equipment. Repairs made to registered telephone equipment by unauthorized entities are a violation of local state tariffs and will void equipment warranties. Routine repairs are classified typically as lamp replacement, fuse replacement, directory label replacement, etc. All other repairs to your Iwatsu Enterprise-CS telephone equipment should be performed by ICON Voice Networks. When trouble is experienced on any telephone line that your system is connected to and the trouble is causing harm to the network, the Telephone Company may request that you remove the equipment from the telephone lines(s) until the problem has been corrected. To contact ICON Voice Networks, for information regarding the repair of your equipment, write or call:

(972)929-9100
ICON VOICE NETWORKS
8001 Jetstar Drive
Irving, TX 75063
Attn: Repair Department

(6) Use of Other FCC Registered Equipment

Aside from the Ringer Equivalence reporting as explained above, use of other FCC equipment may provide for specific limitations depending upon the type of equipment. Check the instructions included with such equipment to determine what the limitations are, if any, on the use of such equipment.

(7) Automatic Dialers

The Iwatsu Enterprise-CS contains features that provide for the automatic dialing of outgoing calls. When programming Emergency Numbers and/or making test calls to Emergency Numbers:

- Remain on the line and briefly explain to the dispatcher the reason for the call.
- Perform such activities during off-peak hours such as early morning or late evening.

(8) Toll Restriction and Optimized Routing Features

The Iwatsu Enterprise-CS provides both Toll Restriction and Optimized Routing features that may be programmed in your system. The software or programming contained in the Iwatsu Enterprise-CS may be required to be upgraded to allow user access to the network in order to recognize newly established network area codes and exchange codes as they are placed in service. Failure to upgrade the programming or software (if required) to recognize the new codes as they are established will restrict the user from gaining access to the network and to these codes.

(9) Direct-Inward-Dialing (DID) Requirements

The Iwatsu Enterprise-CS meets all FCC requirements for Direct-Inward-Dialing (DID) service by providing Answer Supervision on incoming DID calls in accordance with FCC regulations. Allowing this equipment to be operated in such a manner as to not provide proper Answer Supervision is a violation of Part 68 of the FCC's rules. The equipment returns proper Answer Supervision to the local telephone exchange when DID calls are: answered by the called station, answered by the attendant, routed to a recorded announcement that can be administered by the system user, routed to a dial prompt (instruction).

(10) Radio Frequency Emissions

The Iwatsu Enterprise-CS system is registered with the FCC as a Class A RF Device, pursuant to Part 15 of the FCC rules, that may radiate radio frequency emissions. This equipment complies with the limits for a Class A device. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. In the event that the system causes interference with another device, steps must be taken to reduce the interference, including possible removal of the equipment. While the probability of such an event is remote, consult ICON Voice Networks for further assistance if this occurs.

(11) Equal Access Requirements

This system is capable of providing user access to interstate providers of operator services through the use of equal access codes. Failure to provide equal access capabilities is a violation of the Telephone Operator Consumer Services Improvement Act of 1990 and Part 68 of the FCC rules.

Iwatsu Enterprise-CS Components Overview

IX-CME Gateway Controller

- 5 x 96-Channel Universal Card Slots
- 1 x 32-Channel Universal Card Slot
- Dimensions (HxWxD): 13.3" x 16.93" x 12.21"
- Weight: 20 lbs. Empty: 34.5 lbs. Full Capacity

IX-EXPME1 & IX-EXPME2 Expansion Modules

- IX-EXPME1 used for 2nd, 3rd, 5th, 6th Expansion Shelves
- IX-EXPME2 used for 4th Expansion Shelf
- 6 x 16-Channel Universal Card Slots
- Dimensions (HxWxD): 11.5" x 16.93" x 12.21"
- Weight: 20 lbs. Empty: 34lbs. Full Capacity

Note: The ECS may also be expanded by adding ADIX cabinets under the control of the ECS operating when an IX-HWYA card is installed in the IX-CME and the IX-HWYL card is installed in the ADIX Common Module.



Power Supplies

IX-PWSE & IX-EXPWS

Dimensions (HxWxD):.....	10.5"x 2.75"x 11.5"
Weight:.....	5 lbs.
Nominal Power:.....	115 watts
Maximum Power:.....	185 watts
Heat Dissipation:.....	Maximum 316 BTU/hr
AC Input Voltage Tolerance.....	120 ± 10% VAC
Frequency Tolerance.....	60 Hz ± 3 Hz
Maximum Input Current:.....	3.4 Amps

IX-PWSES

Dimensions (HxWxD):.....	10.5"x 2.75"x 11.5"
Weight:.....	5 lbs. 13.4 oz.
Nominal Power:.....	115 watts
Maximum Power:.....	120 watts
Heat Dissipation:.....	Maximum 205 BTU/hr
AC Input Voltage Tolerance.....	120 ± 10% VAC
Frequency Tolerance.....	60 Hz ± 10 Hz
Maximum Input Current:.....	2.2 Amps

System Architecture

VR4133 Distributed Multi-microprocessor
 64-bit CPU
 266 MHz
 433 MIPS
 Flash Memory
 1024Time Slots

System Memory

Component	Flash Memory	SDRAM
IX-CCU / IX-CCSU	256 MB	128 MB

Environment

Operating Temperature:0° to 40°C/32° to 104°F
 Storage Temperature: -10° to 50°C/14° to 122°F
 Relative Humidity (non-condensing):10% to 90%

Seismic Withstanding

Applied Force	Sweep Cycle/Wave	Applied Waves	Simulated Installation
0.25g vertical	0.5-10Hz	30	Ground level, floor mount
0.125g horizontal			
0.5g vertical	0.5-5Hz	30	2 nd to 6 th floor mount
0.25g horizontal			

Battery Backup

The Iwatsu Enterprise-CS IX-PWSE and the IX-EXPWS power supply include a battery interface. Backup time is dependent upon battery array, system size and system usage.

FCC Registration Numbers for ECS

Key Telephone Systems: US:BD6KF10BIWATSU1
 Multi-Function System (Hybrid): US:BD6MF10BIWATSU1
 PBX: US:BD6PF10BIWATSU1

FCC ID Number

Your Iwatsu Telephone may contain a wireless Bluetooth® module which carries an FCC ID number of BD6BTINF

BIC Registration Number

IC:577A-IWATSU1

Facility Interface Codes

Loop Start Trunks: 02LS2
 Ground Start Trunks:02GS2
 DID Trunks:02RV2-T
 E&M Tie Lines: TL31M/TL32M
 OPS Lines: 0L13C
 T1-SF:04DU9-BN
 T1-ESF:04DU9-1KN
 ISDN BRI: 02IS5
 ISDN PRI:04DU9-1KN

Software Capacities

Abandon Call Storage:	500 call records
Account Codes:	12 digits
Call Forwarding:	10 steps
No Answer:	no limit to steps
Call Pick-up Groups:	250
CO/ICM Hunt Groups:	250
CO/ICM Hunt Groups with Login/Logout:	32
CO/Station Alphanumeric ID:	8 characters
DHCP Server:	1024 IP Addresses
DID Alphanumeric ID:	16 characters
Door Phone Ringing Assignment:	16 ringing stations/455 door phones
Flexible Numbering Plan:	1-4 digits
Forced Verified Account Codes:	2000
Incoming Call Delayed Ringing Assignment:	16 stations/line
Incoming Call Ringing Assignment:	16 stations/line, 32 stations/line if delayed ringing assignment is not programmed
Incoming Trunk Groups:	250
Intercom Call Groups:	250
Maximum Call Coverage Keys:	2048 ¹
Maximum Combined Call Coverage & DSS Keys:	2048 ²
Maximum Digits per Speed Dial Number:	32
Maximum DSS Keys:	2048 ³
Maximum Stations per Hunt Group:	32
Maximum Stations per Paging Group:	64
Maximum Stations per Text Message Group:	16
Outgoing Trunk Groups:	250
Paging Groups Internal:	125
Paging Zones External:	125
Park Orbits:	
Attendant:	24
System:	128
Station:	1
Programmable System	
Announcement Time:	Based on voice mailbox capacity
Relays:	32
SIP Trunks:	248
Speed Dial Alphanumeric ID:	10 characters
Station Speed Dial Numbers:	10
Station Text Messages:	10
System Speed Dial Numbers:	900
System Text Messages:	90
Text Message Groups:	250
Ticker Field Display (Iwatsu Ticker):	5 Sources
Text Web (Iwatsu Text Web):	5 Sources

Media Gateway Channels:

IX-MBU:	24 Channels
IX-EMBU:	24 Channels
IX-MBU + (3) IX-EMBU:	96 Channels
Maximum MBU Channels	192 ⁴

Circuits Per Card

Digital Station Card (IX-16PSUB-2):	16 circuits
Digital Station Card (IX-16PSUB):	16 circuits
Digital Station Card (IX-8PSUB-2):	8 circuits
Digital Station Card (IX-8PSUB-1):	8 circuits
Digital Station/Caller ID Trunk Card (IX-408):	12 circuits
Ground/Loop Start Trunk Card (IX-8LGTK-2):	8 circuits
IP Networking Card (IX-8IPNET/IX-8EIPNET):	8 circuits
ISDN BRI Trunk Card (IX-4ICOTB/IX-4EICOTB):	4 circuits
ISDN PRI Trunk Card (IX-DTI-P):	1 circuit

¹ The maximum number of programmed DSS/BLF keys and Call Coverage Keys representing a specific default or virtual user extension profile cannot exceed 64.

² Ibid.

³ Ibid.

⁴ 192 MBU channels supported with G.729 compression. Maximum of 160 MBU channels at G.711 compression.

Caller ID w/Message Lamp SLT Card (IX-8SUBS-4):	8 circuits
Caller ID w/Message Lamp SLT Expansion Card (IX-8ESUBS-4):	8 circuits
Application Server Card (IX-APPSRV-1).....	0 circuits
Omega-Voice VMI Voice Mail Card (IX-4EVMC):	4 circuits
Omega-Voice VMI Voice Mail Card (IX-4SEVMC):	4 circuits
T1 Trunk Card (IX-DTI-T):.....	1 circuit
Universal Caller ID Trunk Card (IX-8UNTK-1):.....	8 circuits

Attendants

Maximum Attendant Positions:.....	32
DSS Units:	64 59DS Units
Programmable DSS Keys (59DS).....	60
PC Attendant Console.....	option

IP Telephones / ICON DECT1 Base Station Requirements

Wiring:	CAT5 UTP or better
Total End-to-end Distance (CAT 5):	328 ft.

Digital Telephone Requirements

Wiring:	1 pair
Total End-to-end Distance	
22 AWG Twisted Pair:	1,000 ft.
24 AWG Twisted Pair:	1,000 ft.
IX-58EXTENDER: (ICON telephones only):.....	2,100 ft.
1 Star Repeater: (Platinum and IX-12KTD-3 only):	1,500 ft.
2 Star Repeaters: (Platinum and IX-12KTD-3 only):.....	8,500 ft.

Single Line Telephone Requirements

Wiring:	1 pair
Wiring w/Message Lamp:	1 or 2 pair
Maximum Loop Resistance (Includes SLT)	
On-premise SLT:.....	600 ohm
Off-premise SLT:.....	1,200 ohm
Ringing Frequency:	20Hz

Iwatsu ECS Software Feature Licenses

ACD Call Routing License.....	Enables ACD feature set
IP Campus Main License	Enables IP Campus Networking
IP Campus Remote License	Enables remote IP Campus systems
ACD Event License	Enables ACD events for TASKE
SMDR License	Enables SMDR output
Iwatsu ECS CSTA Event License	Enables CSTA messaging
ECS Multiple Tenant License	Enables multiple tenant feature
Station Profile License	Enables hoteling/station login feature

Iwatsu Enterprise-CS System Capacity

With the IX-PWSE and IX-PWSES Power Supply

This table lists the maximum capacity supported for each component type based on the type of power supply installed in IX-CME common module, total number of cards slots available, software restrictions and the power consumption of each component. The combined total number of ports for each system is limited to 1024 ports. Power consumption based on utilizing the IX-PWSE or the IX-PWSES in the IX-CME ECS cabinet.

Power Supply Shelf 1	IX-PWSE	IX-PWSES
	IX-CME	IX-CME
Universal Card Slots	6	6
Number of TDM Ports ⁵	144	144
Trunk Ports	144	144
T1 Ports w/o T1RCV	144	144
Station Ports ⁶	1024	1024
IP Stations ⁷	1024	1024
Omegatrek Portable Station (IX-PS6)	1024	1024
ICON DECT1 Base Stations	40	40
ICON DECT1 Handsets	30/base station, 200 max.	30/base station, 200 max.
IX-BS5 Base Stations	24	16
TDM Digital Station Ports ⁸	72	48
Attendant Positions	32	32
Attendant Consoles ⁹	24 w/o BLF	16 w/o BLF
DSS Units (IX-DSS-3) ¹⁰	32	20
IP DSS Units (59DS) ¹¹	64	64
On-Premise SLTs (Regular)	72	28
On-Premise SLTs (MSG)	72	24
Off-Premise SLTs	16	16
Door Phones	96	47
Busy Bypass Units ¹²	36	24
Loop Start Trunks	48	20
Caller ID Trunks	48	20
Ground Start Trunks	48	16
E & M Tie Trunks	20	16
DID Trunks	20	12
SIP Phones (G.711)	160	160
SIP Trunks	248	248
IX-MSGU Message Cards	5	5
IX-EDVIF Cards ¹³	1	1
Conference Circuits / Party	32 / 4	32 / 4
T1 Cards (Circuits) (IX-DTI-T) ¹⁴	6	6
T1 Cards w/o T1RCV	6	6
T1 Cards with T1RCV	0	0
ISDN BRI Circuits	48	40
ISDN PRI Cards (Circuits) (IX-DTI-P)	6	6
Campus APS Network Cards (IX-DTI-N w/ IX-VCOMP)	5	3
IP Networking Cards / Circuits (IX-8IPNET or IX- 8EIPNET)	12 / 96	12 / 96
IX-MBU Channels: G.729 / G.711	192 / 160	192 / 160
APPSRV-1 Cards	5	5
APPSRV Card	1	1

⁵ The combined number of TDM Station, Trunk, and Miscellaneous ports may not exceed the number of ports listed in this category.

⁶ The ECS supports a maximum of 1024 IP or IP + TDM ports, this number assumes a minimum of 8 trunk ports supported. (1016 station ports + 8 trunk ports = 1024 total ports) Maximum of 64 remote IP stations via Internet mode connection

⁷ *Ibid.*

⁸ The maximum number of TDM station ports per shelf may not exceed 72. This number does not apply to PS6 Portable Stations.

⁹ The maximum number of DSS units and attendant consoles in the ECS system cannot exceed 128. The ECS system supports a maximum of 64 Iwatsu ICON Series 59DS units as part of the 128 total

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² When Busy Bypass Units are used, the total number of Digital Stations should not exceed these numbers.

¹³ The IX-EDVIF card may only be installed in the first three shelves of the system. For additional serial card functions, IX-SCIF or IX-HCIF cards can be added based on available card slots and power consumption.

¹⁴ This number indicates the maximum trunk port capacity utilizing no T1RCV cards.

With Iwatsu Enterprise-CS Expansion Hardware

This table lists the maximum capacity supported for each component type based on the type of power supply installed on the shelf, total number of cards slots available, software restrictions and the power consumption of each component. The combined total number of ports for each system is limited to 1024 ports. Power consumption based on utilizing the IX-PWSE in the IX-CME ECS cabinet and IX-EXPWS in the ECS expansion cabinets.

Power Supply	IX-PWSE	IX-EXPWS	IX-EXPWS	IX-EXPWS	IX-EXPWS	IX-EXPWS
Shelf 6						IX-EXPME1
Shelf 5					IX-EXPME1	IX-EXPME1
Shelf 4				IX-EXPME2	IX-EXPME2	IX-EXPME2
Shelf 3			IX-EXPME1	IX-EXPME1	IX-EXPME1	IX-EXPME1
Shelf 2		IX-EXPME1	IX-EXPME1	IX-EXPME1	IX-EXPME1	IX-EXPME1
Shelf 1	IX-CME	IX-CME	IX-CME	IX-CME	IX-CME	IX-CME
Universal Card Slots	6	12	18	24	30	36
Number of TDM Ports ¹⁵	144	240	336	432	528	624
Trunk Ports	144	240	336	432	528	624
T1 Ports w/o T1RCV	144	144	144	144	144	144
Station Ports ¹⁶	1024	1024	1024	1024	1024	1024
IP Stations ¹⁷	1024	1024	1024	1024	1024	1024
ICON DECT1 Base Stations	40	40	40	40	40	40
ICON DECT1 Handsets	30/base station, 200 max.	30/base station, 200 max.	30/base station, 200 max.	30/base station, 200 max.	30/base station, 200 max.	30/base station, 200 max.
Omegatrek Portable Station (IX-PS6)	1024	1024	1024	1024	1024	1024
IX-BS5 Base Stations	24	48	72	96	120	144
TDM Digital Station Ports ¹⁸	72	144	216	288	360	432
Attendant Positions	32	32	32	32	32	32
Attendant Consoles ¹⁹	24 w/o BLF	32 (8w/BLF 24w/o BLF)	32	32	32	32
DSS Units (IX-DSS-3) ²⁰	32	64	96	128	128	128
IP DSS Units (59DS) ²¹	64	64	64	64	64	64
On-Premise SLTs (Regular)	72	144	216	288	360	432
On-Premise SLTs (MSG)	72	144	216	288	360	432
Off-Premise SLTs	16	32	48	64	80	96
Door Phones	96	192	288	384	480	576
Busy Bypass Units ²²	36	72	108	144	180	216
Loop Start Trunks	48	96	144	192	240	288
Caller ID Trunks	48	96	144	192	240	288
Ground Start Trunks	48	96	144	192	240	288
E & M Tie Trunks	20	40	60	80	100	120
DID Trunks	20	40	60	80	100	120
SIP Phones (G.711)	160	160	160	160	160	160
SIP Trunks	248	248	248	248	248	248
IX-MSGU Message Cards	5	8	8	8	8	8
IX-EDVIF Cards ²³	1	1	1	1	1	1
Conference Circuits / Party	32/4	32/4	32/4	32/4	32/4	32/4
T1 Cards (Circuits) (IX-DTI-T) ²⁴	6	9	12	15	18	21
T1 Cards w/o T1RCV	6	6	6	6	6	6

¹⁵ The combined number of TDM Station, Trunk, and Miscellaneous ports may not exceed the numbers listed in this category

¹⁶ The ECS supports a maximum of 1024 IP or IP+TDM ports, this number assumes a minimum of 8 trunk ports supported (1016 station ports + 8 trunk ports = 1024 total ports). Maximum of 64 remote IP stations via Internet mode connection.

¹⁷ *Ibid.*

¹⁸ The maximum number of TDM station ports per shelf may not exceed 72. This number does not apply to PS6 Portable Stations.

¹⁹ The maximum number of DSS units and attendant consoles in the ECS system cannot exceed 128. The ECS system supports a maximum of 64 Iwatsu ICON 59DS Units.

²⁰ *Ibid.*

²¹ *Ibid.*

²² When Busy Bypass Units are used, the total number of Digital Stations should not exceed these numbers.

²³ The IX-EDVIF card may only be installed in the first three shelves of the system. For additional serial card functions, IX-SCIF or IX-HCIF cards can be added based on available card slots and power consumption.

²⁴ This number indicates the maximum trunk port capacity utilizing no T1RCV cards.

Iwatsu ECS General Description

Power Supply	IX-PWSE	IX-EXPWS	IX-EXPWS	IX-EXPWS	IX-EXPWS	IX-EXPWS
Shelf 6						IX-EXPME1
Shelf 5					IX-EXPME1	IX-EXPME1
Shelf 4				IX-EXPME2	IX-EXPME2	IX-EXPME2
Shelf 3			IX-EXPME1	IX-EXPME1	IX-EXPME1	IX-EXPME1
Shelf 2		IX-EXPME1	IX-EXPME1	IX-EXPME1	IX-EXPME1	IX-EXPME1
Shelf 1	IX-CME	IX-CME	IX-CME	IX-CME	IX-CME	IX-CME
T1 Cards with T1RCV	0	3	6	9	12	15
ISDN BRI Circuits	48	96	144	192	240	288
ISDN PRI Cards (Circuits) (IX-DTI-P)	6	9	12	15	18	21
Campus APS Network Cards (IX-DTI-N w/ IX-VCOMP)	5	6	7	8	9	10
IP Networking Cards / Circuits (IX-8IPNET or IX-8EIPNET)	12/96	24/192	36/288	48/384	60/480	72/576
IX-MBU Channels: G.729 / G.711	192 / 160	192 / 160	192 / 160	192 / 160	192 / 160	192 / 160
APPSRV-1 Cards	5	6	6	6	6	6
APPSRV Card	1	1	1	1	1	1

With Iwatsu ADIX APS Expansion Hardware

This table lists the maximum capacity supported for each component type based on the type of power supply installed on the shelf, total number of cards slots available, software restrictions and the power consumption of each component. The combined total number of ports for each system is limited to 1024 ports. Power consumption based on utilizing the IX-PWSE in the IX-CME ECS cabinet and IX-PWSL in the ADIX APS and expansion cabinets.

Shelf 6						IX-EXPML1
Shelf 5					IX-EXPML2	IX-EXPML2
Shelf 4				IX-EXPML1	IX-EXPML1	IX-EXPML1
Shelf 3			IX-EXPML1	IX-EXPML1	IX-EXPML1	IX-EXPML1
Shelf 2		IX-CML	IX-CML	IX-CML	IX-CML	IX-CML
Shelf 1	IX-CME	IX-CME	IX-CME	IX-CME	IX-CME	IX-CME
Universal Card Slots	6	11	17	23	29	35
Number of TDM Ports ²⁵	144	232	328	424	520	616
Trunk Ports ²⁶	144	200	256	312	368	424
T1 Ports without T1RCV	144	168	168	168	168	168
T1 Ports with T1RCV	0	24	72	120	168	216
Station Ports (TDM + IP) ²⁷	1024	1024	1024	1024	1024	1024
IP Stations ²⁸	1024	1024	1024	1024	1024	1024
ICON DECT1 Base Stations	40	40	40	40	40	40
ICON DECT1 Handsets	30/base station, 200 max.	30/base station, 200 max.	30/base station, 200 max.	30/base station, 200 max.	30/base station, 200 max.	30/base station, 200 max.
Omegatrek Portable Station (IX-PS6)	1024	1024	1024	1024	1024	1024
IX-BSS Base Stations	24	40	64	88	112	136
TDM Digital Station Ports ²⁹	72	144	216	288	360	432
Attendant Positions	32	32	32	32	32	32
Attendant Consoles	24 w/o BLF	32-8 w/BLF 24 w/o BLF	32	32	32	32
BLF Units	8	16	24	32	32	32
DSS Units (IX-DSS-3) ³⁰	32	64	96	128	128	128
IP DSS Units (59DS) ³¹	64	64	64	64	64	64
On-Premise SLTs (Regular)	72	140	212	284	356	428
On-Premise SLTs (MSG)	72	136	208	280	352	424
Off-Premise SLTs	16	20	24	28	32	36
Door Phones	96	167	240	312	384	456
Loop Start Trunks	48	84	132	180	228	264
Caller ID Trunks	48	80	128	176	224	268
Ground Start Trunks	48	76	124	172	220	260
E & M Tie Trunks	20	36	60	84	108	132
DID Trunks	20	36	60	84	108	132
SIP Phones (G.711)	160	160	160	160	160	160
SIP Trunks	248	248	248	248	248	248
IX-MSGU Message Cards	4	7	8	8	8	8
IX-EDVIF Cards ³²	1	1	1	1	1	1

²⁵ The combined number of TDM Station, Trunk, and Miscellaneous ports may not exceed the number of ports listed in this category.

²⁶ This number indicates the maximum trunk port capacity utilizing no T1RCV cards.

²⁷ The ECS supports a maximum of 1024 IP or IP + TDM ports, this number assumes a minimum of 8 trunk ports supported. (1016 station ports + 8 trunk ports = 1024 total ports) Maximum of 64 remote IP stations via Internet mode connection.

²⁸ *Ibid.*

²⁹ The maximum number of TDM station ports per shelf may not exceed 72. This number does not apply to PS6 Portable Stations.

³⁰ The maximum number of DSS units and attendant consoles in the ECS system cannot exceed 128. The ECS system supports a maximum of 64 Iwatsu ICON Series 59DS units as part of the 128 total.

³¹ *Ibid.*

³² The IX-EDVIF card may only be installed in the first three shelves of the system. For additional serial card functions, IX-SCIF or IX-HCIF cards can be added based on available card slots and power consumption.

Iwatsu ECS General Description

Shelf 6						IX-EXPML1
Shelf 5					IX-EXPML2	IX-EXPML2
Shelf 4				IX-EXPML1	IX-EXPML1	IX-EXPML1
Shelf 3			IX-EXPML1	IX-EXPML1	IX-EXPML1	IX-EXPML1
Shelf 2		IX-CML	IX-CML	IX-CML	IX-CML	IX-CML
Shelf 1	IX-CME	IX-CME	IX-CME	IX-CME	IX-CME	IX-CME
Conference Circuits / Party	32/4	32/4	32/4	32/4	32/4	32/4
T1 Cards (Circuits)(IX-DTI-T) ³³	6	8	10	12	14	16
T1 Cards without T1RCV	6	7	7	7	7	7
T1 Cards with T1RCV	0	1	3	5	7	9
ISDN BRI Circuits	48	76	120	164	208	252
ISDN PRI Cards (Circuits)(IX-DTI-P)	6	8	10	12	14	16
Campus APS Network Cards (IX-DTI-N w/ IX-VCOMP)	5	8	11	14	15	15
IP Networking Cards / Circuits (IX-8IPNET or IX-8EIPNET)	12	21	32	43	54	62
IX-MBU Channels: G.729 / G.711	192 / 160	192 / 160	192 / 160	192 / 160	192 / 160	192 / 160
APPSRV-1	5	Not supported in ADIX APS Cabinets				
APPSRV	1					

³³ This number indicates the maximum trunk port capacity utilizing no T1RCV cards.

Key Telephone Lamp Indications

<u>Status</u>	<u>Lamp Indication</u>
I-Use (Green)	Modulation Steady (On)
CO Incoming/Call Forward	0.1 sec. on, 0.9 sec. off
I-Hold (Green)	0.5 sec. on, 0.5 sec. modulated on
System Hold/Non-Privacy	0.1 sec. off, 0.3 sec. modulated on
Recall, ICM Incoming, MSG	0.7 sec. off, 0.3 sec. modulated on
DND	0.5 sec. on, 0.5 sec. modulated on
Busy	Steady (On)

Station Port Requirements

<u>Model</u>	<u>Description</u>	<u>ECS Ports Required</u>
IX-ATT	Attendant Console	2
IX-BLF	Busy Lamp Field	1
DCKT970	Digital Wireless Telephone	1 or shared with digital telephone
ICON DECT1	DECT wireless phone	1
IX-PS6	Digital Portable Key Telephone	1
Iwatsu ICON Series:		
5800	9 line keys with 2 line LCD display	1
5810	16 line /Multipurpose keys with 7 line LCD display	1
5900	9 line keys with 2 line LCD display	1
5910	16 line /Multipurpose keys with 7 line LCD display	1
5930	30 line keys with 15 line LCD display	1
59DS	30 Self-labeling keys with 15 line LCD display	1
Platinum 18i/d	18 line keys with 6 line LCD display	1
Platinum 12i/d	12 line keys with 2 line LCD display	1
Platinum DSS	50 DSS & 20 function keys with display	1
IX-12KTS-3	12 line keys (24 line keys with IX-ELK-3)	1
IX-12KTD-3	12 line keys (24 line keys with IX-ELK-3)	1
IX-DSS-3	50 DSS & 20 function keys with display	1
IX-DDPH	Digital Door Phone	1
IX-PSUBMDM	Digital Port Modem	1

Time Parameters

Hold Recall Timer	0 - 255 seconds
Timed Trunk Queuing	1 - 20 minutes
Door Phone Answer Time	5 - 255 seconds
VSS Recording Time	0 - 120 seconds
Hunting Time	0 - 255 seconds
Night Mode Start Time	00:00 - 23:59
Auto CO Answer Start Time	00:00 - 23:59
MISC Relay Timer	10 - 255 ms
DISA-Waiting Time	0 - 255 seconds

Section 2 –

System Hardware

Iwatsu Enterprise-CS IP, Digital and Wireless Telephones

There is a wide assortment of IP, digital, and wireless telephones designed to work with Iwatsu Enterprise-CS. These telephones have a combination of Self-Labeling keys, Fixed Features keys and / or Programmable Multipurpose keys. Most of the models are equipped with a digital display and have keys that provide red and green LED indication.

Iwatsu ICON Series 5930 IP Telephone

The 5930 is equipped with a 15-line, 24-character backlit LCD display, 30 Self-Labeling keys that support up to 52 features, and a full-duplex speakerphone.

The 5930 has a Directory feature that allows users to search an Internal Directory and External Speed Dial numbers; also, search and program up to nine Personal Speed Dial Numbers. The enhanced Call Forwarding menu allows the user to program multiple Call Forward destinations to quickly and easily activate call forwarding. A Call Log stores the last 10 incoming and 10 outgoing telephone calls with Caller ID, ANI, or DNIS information. This Call Log lets the user view the number, trunk, and date and time of the call as well as, dial the number or delete record. A Setup menu allows the user to configure an optional Bluetooth headset, change the display contrast, and choose up to five different Ticker displays (If programmed in the system database). The 5930 also allows visual navigation of the IX-4EVMC Voice Mail card menus from the LCD.

The 5930 includes a three position integrated pedestal with a built-in wall-mount option that simplifies installation.

A Bluetooth adapter (IX-59BTINF) is an optional unit available for the 5930. The 5930 supports power over Ethernet or local power when the optional IX-59AC (PN 505099) is installed.

The 5930 IP telephone provides two new features that simplify installation and reduce installation time. Iwatsu Auto-Discovery Mode is a propriety network protocol developed by Iwatsu that allows the ICON series 5930 IP telephone to automatically identify itself on the local network and connect to the ECS system. Manual Setup Quick Mode provides a simplified method for manually entering configuration information through the station LCD menu.

Note: Remote Iwatsu ICON IP telephones will operate in both a VPN or non-VPN environment (Internet mode). Internet mode allows up to 64 IP stations to operate remotely without a VPN connection.

Iwatsu ICON Series 5910 IP Telephone

The 5910 is equipped with a seven-line, 24-character backlit LCD display, 16 multipurpose keys, 10 Self-Labeling keys, and a full-duplex speakerphone.

The 5910 has a Directory feature that allows users to search an Internal Directory and External Speed Dial numbers; also, search and program up to nine Personal Speed Dial Numbers. The enhanced Call Forwarding menu allows the user to program multiple Call Forward destinations to quickly and easily activate call forwarding. A Call Log stores the last 10 incoming and 10 outgoing telephone calls with Caller ID, ANI, or DNIS information. This Call Log lets the user view the number, trunk, and date and time of the call as well as, dial the number or delete record. A Setup menu allows the user to configure an optional Bluetooth headset, change the display contrast, and choose up to five different Ticker displays (If programmed in the system database). The 5910 also allows visual navigation of the IX-4EVMC Voice Mail card menus from the LCD.

The 5910 includes a three position integrated pedestal with a built-in wall-mount option that simplifies installation. A Bluetooth adapter (IX-59BTINF) and a Line Key Expansion (IX-ELK8) are optional units available for the 5910. The 5910 supports power over Ethernet or local power when the optional IX-59AC (PN 505099) is installed.

The 5910 IP telephone provides two new features that simplify installation and reduce installation time. Iwatsu Auto-Discovery Mode is a propriety network protocol developed by Iwatsu that allows the ICON series 5910 IP telephone to automatically identify itself on the local network and connect to the ECS system. Manual Setup Quick Mode provides a simplified method for manually entering configuration information through the station LCD menu.

Iwatsu ICON Series 5900 IP Telephone

The Iwatsu ICON Series 5900 is equipped with a two-line, 16-character LCD display, and nine multipurpose keys. The 5900 has a large incoming call / MSG indication LED on the top of the telephone and standard full-duplex speakerphone.

Ringer, Handset, and Speaker volume for the 5900 are controlled by using the - and + keys and changes based on the state of the telephone. The 5900 includes a three-position integrated pedestal and a wall-mount option that simplifies installation. An IX-ELK9 Line Key Expansion is an optional unit for the 5900. Also, the Ticker Field Display (TFD) can be programmed in the ECS database to scroll across the 5900 display.

The 5900 IP telephone provides two new features that simplify installation and reduce installation time. Iwatsu Auto-Discovery Mode is a propriety network protocol developed by Iwatsu that allows the ICON series 5900 IP telephone to automatically identify itself on the local network and connect to the ECS system. Manual Setup Quick Mode provides a simplified method for manually entering configuration information through the station LCD menu.

The 5900 supports Power over Ethernet or local power when the optional IX-59AC (PN: 505099) is installed.

Iwatsu ICON Series IP Softphone

The Iwatsu ICON Series Softphone is part of the ICON Series of telephones from Iwatsu. The ICON Softphone offers all the functionality of a fixed IP phone, yet it resides on the PC and uses the PC's IP connection to communicate with the Iwatsu Enterprise-CS. The ICON Softphone has a fixed ICM key and two fixed line keys plus fixed keys for Transfer, Feature, Mute, and Hold/DND. Four tabs provide extended access to Features, Contacts, Call Logs, and Settings.

Iwatsu ICON Series 5810 Digital Telephone

The 5810 is equipped with a seven-line, 24-character LCD display, 16 multipurpose keys, 10 Self-Labeling keys, and a full-duplex speakerphone.

The 5810 has a Directory feature that allows users to search an Internal Directory and External Speed Dial numbers; also, search and program up to nine Personal Speed Dial Numbers. The enhanced Call Forwarding menu allows the user to program multiple Call Forward destinations to quickly and easily activate call forwarding. A Call Log stores the last 10 incoming and 10 outgoing telephone calls with Caller ID, ANI, or DNIS information. This Call Log lets the user view the number, trunk, and date and time of the call as well as, dial the number or delete record. A Setup menu allows the user to configure an optional Bluetooth headset, change the display contrast, and choose up to five different Ticker displays (If programmed in the system database). The 5810 also allows visual navigation of the IX-4EVMC Voice Mail card menus from the LCD.

The 5810 includes a three position integrated pedestal with a built-in wall-mount option that simplifies installation. A Bluetooth adapter (IX-58BTINF), Loop Limit Extender (IX-58EXTENDER), and a Line Key Expansion (IX-ELK8) are optional units available for the 5810.

Iwatsu ICON Series 5800 Digital Telephone

The 5800 is equipped with a two-line, 16-character LCD display, and nine multipurpose keys. The 5800 has a large incoming call / MSG indication LED on the top of the telephone and standard full-duplex speakerphone.

Ringer, Handset, and Speaker volume for the 5800 are controlled by using the - and + keys and changes based on the state of the telephone. The 5800 includes a three-position integrated pedestal and a wall-mount option that simplifies installation. An optional IX-58EXTENDER Loop Limit Extender and an IX-ELK9 Line Key Expansion are optional units available for the 5800. Also, the Ticker Field Display (TFD) can be programmed in the ECS database to scroll across the 5800 display.

Note: Legacy Direct Station Selection (DSS) units, including the IX-DSS-3 and the Platinum Series DSS, are not compatible with the 5810 and 5800 Digital Key Telephones.

IX-12KTD-3 Executive Digital Display Telephone

The IX-12KTD-3 Executive Digital Key Display Telephone offers all the functionality of the IX-12KTS-3 with the addition of a two-line, 16 characters per line liquid crystal display. This display is very helpful for using advanced features and for providing status information. The oversized indicator lamp flashes red for incoming calls and green for a programmable feature such as message waiting.

ICON DECT1 Wireless Handset and Base Station

The ICON DECT1 Wireless Handset allows Iwatsu ECS users to make and receive calls while roaming around their office or campus. The ICON DECT1 phone relies on a network of on-site base stations to provide seamless voice access for people on the move. Features of the DECT1 include seamless call handoff when roaming between base stations, Hold, transfer and 3-way conference calling, shared central directory with up to 200 names and twelve speed dial numbers. Up to 200 registered handsets (maximum 30 per base station) and 40 base stations may be configured in the system. Each base station supports up to 8 talk paths.



ICON DECT1 Base Station and DECT1 Wireless Handset

ICON DECT1 Handset Features:

DECT wireless handset with color display and speakerphone

Registers as ECS SIP extension

Handset displays caller ID name and number on incoming call

Feature support includes: transfer, hold, access to ECS SLT features via access code dialing, DND, call log, directory and four function keys that can

ICON DECT1 Base Station Features:

Power Over Ethernet (POE) powered device

Handles all SIP transmission to ECS via LAN connection to POE 10/100 port

Transmits at 1.9 GHz to DECT1 Handsets

Capacities:

System supports up to 200 handsets and 40 base stations maximum

A maximum of 30 DECT wireless handsets can be simultaneously registered to each base station

Each base station supports up to 10 audio / control channels

In a single-base station application 10 channels may be used for audio conversations

In a multi-cell applications, a maximum of 8 channels may be used for audio per base station

Omegatrek PS6 Portable Station (Discontinued)

The Omegatrek PS6 Portable Station is a lithium battery-operated portable telephone that allows users to make and receive calls within the service area covered by an Omegatrek IX-BS5 Base Station. The PS6 Portable Station has a three-line display, eight multiple purpose keys each with a red/green LED, an integrated handset speaker for voice announce and hands-free answerback, multiple ringing tones including vibrate mode, and an integrated headset jack.

Omegatrek IX-BS5 Base Station

To optimize the signal reception, the Omegatrek Wireless System is installed using a cell configuration. A cell is the area covered by radio signals from an IX-BS5 Base Station. Signal strength in a cell is designed to be strong enough for users of the Omegatrek Wireless System to carry on normal calls throughout the cell area.

SIP Door Phone

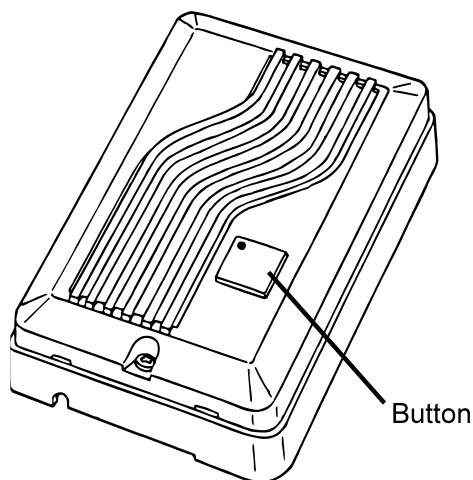
The Link Slim Video IP Doorphone, available through ICON Voice Networks, provides a visual communications enabled SIP doorphone solution. This set is ideal building entrances with the requirement to see and hear visitors and control access to the building. Key features include,

- Single-button access to make a voice/video call.
- Incoming or outgoing calls
- Broadcast video from the Link Slim IP Door Phone to the OmniTouch 8082 phone. Incoming calls will pop the 8082 screen with the video feed.
- Broadcast video from the Link Slim IP Door Phone to other 3rd party IP phones or softphones that support the H.263 and H.264 codec.
- View the live video stream from the Link Slim in a browser window.
- Two internal relays activated via 2-digit DTMF to control door access.



Digital Door Phone

The Digital Door Phone (IX-DDPH) provides an economical and simple method to allow visitors to make an intercom call to gain entrance to your building.



Session Initiation Protocol (SIP) Telephones³⁴

SIP telephones have access to many of the ECS system features accessible from single line telephones using SLT access codes.



Polycom IP SoundPoint 601 SIP Station

Single Line Telephones

Both Touch-Tone and Rotary Dial Single Line Telephones may be used with the Iwatsu Enterprise-CS. Single Line Telephones may use many ECS features by pressing and releasing the receiver button, quickly followed by the dialing of a feature operation code.

Attendant Position

The Attendant Position consists of an IP or Digital Multiline Display Telephone and a Direct Station Selection Unit. The maximum number of DSS Units and Attendant Consoles that may be used in an ECS is 128 total. The ECS system supports a maximum of 64 Iwatsu ICON Series 59DS units as part of the 128 total DSS units supported in the ECS system.

Iwatsu ICON Series 59DS

Note: Only the Iwatsu ICON Series 5930, 5910, and 5810 telephones are compatible with the Iwatsu ICON Series 59DS unit.

The Iwatsu ICON Series DSS Unit (59DS) was designed for use with the Iwatsu ICON Series IP and Digital telephones (5930, 5910, and 5810 only). The 59DS is equipped with a 15-line, 24-character backlit LCD display, and 30 Self-Labeling keys that support up to 60 features. One 5930, 5910, or 5810 supports a maximum of two 59DS units.

The 59DS includes a three position integrated pedestal with a built-in wall-mount option that simplifies installation. The wall mount option requires the IX-59WMS-1 Wall Spacer. The 59DS supports Power over Ethernet or local power when the optional IX-59AC (PN 505099) is installed.

Red flashing lamp:	The extension is in the Do Not Disturb, Call Forward, Absence Message, Station Forced Release or Station Lock mode.
Solid red lamp:	The extension is busy.
Green flashing lamp:	The extension has the Message Waiting lamp lit.
Solid green lamp:	The extension is talking with the attendant.

³⁴ Due to the many different SIP phone manufacturers, features and functionality of your SIP station may vary. The features listed in this section have been tested and function using the Polycom IP SoundPoint 601. ICON Voice Networks does not guarantee operation of the third party device beyond publishing what we have tested including the software level of the device.

Optional Station Equipment

The following components provide the Iwatsu Enterprise-CS station terminals with additional features.

Bluetooth Interface

IX-58BTINF

The IX-58BTINF Bluetooth Interface module is an optional module that allows a Bluetooth headset to be used with the 5810 Digital Telephone. This is a Class 2 version 2.0 + EDR Bluetooth module. This optional module attaches to the 5810 circuit board and can be installed by the Iwatsu Authorized installer.

IX-59BTINF

The IX-59BTINF Bluetooth Interface module is an optional module available for the 5930 and 5910 IP Telephones. This is a Class 2 version 2.0 + EDR Bluetooth module. This optional module attaches to the 5930 or 5910 circuit board and can be installed by the Iwatsu Authorized installer.

Disclaimer:

THE COMPATIBILITY AND PERFORMANCE OF ANY BLUETOOTH HEADSET NOT MANUFACTURED BY IWATSU IS "AS IS" AND IS NOT SUPPORTED, WARRANTED OR GUARANTEED BY IWATSU IN ANY MANNER, AND IWATSU HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Changes, modifications, and availability of third party equipment is beyond the control of Iwatsu and therefore compatibility and performance for said handsets is subject to change without notice. Contact your ICON Voice Networks Dealer regarding Bluetooth headset interoperability.

IX-59AC Power Adapter

The IX-59AC provides power for the optional IX-58EXTENDER Loop Limit Extender for the 5800 and 5810 Digital Key Telephones. This unit is the optional power source for the 5930 and 5910 IP Key Telephones when PoE is not available.

The IX-59AC is required when installing the IX-58EXTENDER in an 5800 or 5810 Digital Key Telephone. The IX-58EXTENDER, along with the IX-59AC Adapter, increases the loop limit distance of the 5800 or 5810 up to a maximum of 2,100 feet.

IX-58 Extender Loop Limit Extender

The IX-58EXTENDER provides the interface for the Iwatsu ICON Series 5800 and 5810 Digital Telephones to increase the loop limit distance for the telephone up to a maximum of 2,100 feet. This unit requires the IX-59AC Power Adapter to provide local power to the telephone.

IX-ELK8

Expansion Line Key Unit. IX-ELK8 units add an additional 8 keys to the Iwatsu ICON Series 5810 or 5910 Telephone. 5810 and 5910 telephones are field upgradeable to receive the IX-ELK8.

IX-ELK9

Expansion Line Key Unit. IX-ELK9 units add an additional 9 keys to the Iwatsu ICON Series 5800 and 5900 Telephone. The 5800 and 5900 telephones are field upgradeable to receive the IX-ELK9.

IX-12ELK-3 Expansion Line Key Unit

Expansion Line Key Unit. IX-12ELK-3 units add an additional 12 keys to your IX-12IPKTD, IX-12IPKTD-E IP Telephones or IX-12KTD / S-3 Digital Key Telephones and are available in both black and white to match the telephones. The keys on the black telephone are black, and the keys on the white phone are gray. The IX-12IPKTD IP Telephones and IX-12KTD / S-3 Digital Key Telephones are field upgradeable to receive the IX-12ELK-3.

IX-LRAU (IX-12KTD / S-3 only)

Internal Loud Ringer Unit. The IX-LRAU provides the interface for IX-12KTD-3 or IX-12KTS-3 Digital Key Telephone to a station loud-ringer, external speakerphone unit and a recording device. The IX-LRAU works the same as the IX-LRSP but provides a new interface to a recording device through a 1 / 8 inch mini-jack audio connector.

IX-BPCU (IX-12KTD / S-3 only)

The IX-BPCU unit allows a caller that calls a busy station with the IX-BPCU unit installed to make a voice announcement to that busy station. Unlike ADIX digital key telephones prior to the IX-12KTD / S-3, the IX-12KTD-3 and IX-12KTS-3 Digital Key Telephones do not use an additional speaker and MIC for the busy bypass function. The IX-BPCU unit utilizes the speaker and the MIC of the IX-12KTD-3 or IX-12KTS-3 Digital Key Telephone. The IX-BPCU requires an additional digital station port to operate.

IX-SSHD (Standard Handset)

Station Hearing Aid Handset. This is the factory-equipped handset and can be used with a hearing aid device that uses a magnetic pick-up coil. (Not available for ICON series phones.)

IX-STPD

Station Pedestal/Wall Mount. Used to wall mount or to provide additional angle to the Iwatsu Enterprise-CS Digital Multiline Telephones (IX-12KTD-2 only).

IX-VTPD

IX-MKT Pedestal/Wall Mount. Used to wall mount or to provide additional angle to the Iwatsu Enterprise-CS IX-MKT Digital Key Telephone.

IX-HSHG

Handset Hanger Assembly. The optional IX-HSHG is available in both black and white to match the IX-12KTD-3 and IX-12KTS-3 Digital Key Telephones and IX-12IPKTD and IX-12IPKTD-E IP Telephones. The Handset Hanger Assembly provides a more secure station handset cradle for wall-mounted stations.

Power Supply Description

The IX-PWSE is the main power source for the Iwatsu Enterprise-CS IX-CME cabinet. Additional power supplies are also used to provide power to certain circuit cards and station terminals when installed in the system.

IX-PWSE

The IX-PWSE power supply generates the DC voltages required for system operation. The DC output voltages of the power supply are +5 VDC, +8 VDC, -8 VDC and +24 VDC. These voltages are converted from the 120 VAC commercial power supply or the +24 VDC emergency backup battery at the main power supply unit.

IX-PWSES

The IX-PWSES power supply generates the DC voltages required for system operation. The DC output voltages of the power supply are +5 VDC, +8 VDC, -8 VDC and +24 VDC. These voltages are converted from the 120 VAC commercial power supply. This power source supports a single IX-CME cabinet and does not support a battery backup.

IX-EXPWS

The IX-EXPWS power supply generates the DC voltages required for the ECS expansion modules. The DC output voltages of the power supply are +5 VDC, +8 VDC, -8 VDC and +24 VDC. These voltages are converted from the 120 VAC commercial power supply or the +24 VDC emergency backup battery.

IX-DCDCM

This unit provides -48 VDC talk battery. Required for off-premise single line telephones (IX-4SUBL), E&M Tie Lines (IX-4EMTK), and Ground Start outside lines (IX-8UNTK). The IX-DCDCM must be installed on the same shelf as the cards mentioned above.

IX-RNGUM

This unit provides 90 VAC ringing voltage at 20 Hz. for single line telephones. Required for any IX-4SUBL or IX-8SUBS-2 card installed in the Iwatsu Enterprise-CS. The IX-RNGUM is not required when the IX-8SUBS-4 analog station card is installed in the Iwatsu ECS system. The IX-8SUBS-4 includes the ringer generator unit on board.

IX-BACBB

Battery Connecting Cable for power failure back-up.

Battery Back-Up

Backup time is dependent upon battery array, system size and usage.

Common Control Cards

Common control cards are the core of system operation and are always required in the IX-CME Gateway Controller. These cards include the Central Processing Unit, Expansion Memory and Highway Expansion Cards (Highway Expansion Cards are only required for Iwatsu Enterprise-CS to ADIX expansion).

IX-CCU Central Control Unit

The IX-CCU Central Control Unit contains a 64-bit processor that controls all Iwatsu Enterprise-CS functions. At a maximum capacity, this processor will support up to 1024 TDM+IP devices. On board features of the IX-CCU include a 1024-address DHCP server, and SIP call control servers, two RS232C serial ports for system event output and administration access, 32 conference circuits that will each support a 4-party conference, an external alarm indicator connector, and an external Background Music / Music On Hold source connector, an FTP server and client for system software upgrades, and an internal web server for SNMP (Simple Network Management Protocol) access. The IX-CCU has connectors for the IX-CCSU which is a required component for all ECS applications.

IX-CCSU Central Control Sub Unit

The IX-CCSU is a required component in all Iwatsu Enterprise-CS applications. This card mounts on the IX-CCU and contains 256 MB compact flash memory which stores the master and backup database files. This card also has two 10/100 Ethernet connectors one of which is connected to the IX-MBU and provides the TCP/IP signaling data for the IP devices. The other Ethernet connector is used for system programming access. All licensing information for the ECS system is stored on the IX-CCSU card.

IX-MBU Media Bridge Unit

The IX-MBU card provides media gateway services to/from any IP device to/from any TDM station, trunk, or miscellaneous port. The IX-MBU, installed in one of five 96-channel slots on the IX-CME, provides 24 channels for IP/TDM conversion in a base configuration. With the addition of one or more IX-EMBU 24-channel DSP daughter cards, the IX-MBU card may be expanded to provide up to 96 channels for IP/TDM conversion. A maximum of 192 MBU channels³⁵ are supported in the system. The IX-MBU card supports the IEEE 802.1p voice prioritization, TOS and DiffServ QoS standards.

IX-EXPIFCM ECS Expansion Card

The IX-EXPIFCM ECS Expansion card is installed in the IX-CME cabinet and provides support for 480 TDM ports. The IX-EXPIFCM directly interfaces the IX-EXPIFE1 cards installed in the IX-EXPME1 ECS expansion modules one and two and the IX-EXPIFE2 card installed in the IX-EXPME2 expansion module three. The IX-EXPMECBL and IX-CMECBL-L cables are required for a direct physical connection to the expansion cards.

IX-EXPIFE1 ECS Expansion Card

The IX-EXPIFE1 ECS Expansion card is installed in the EXT slot of the IX-EXPME1 expansion cabinets one, two, four, and five and provides support for 96 TDM ports per card. The IX-EXPIFE1 directly interfaces the IX-EXPIFCM expansion card installed in the IX-CME cabinet or the IX-EXPIFE2 expansion card installed in the IX-EXPME2 expansion cabinet. The IX-EXPMECBL cable is required for a direct physical connection to the IX-EXPIFCM card.

IX-EXPIFE2 ECS Expansion Card

The IX-EXPIFE2 ECS Expansion card is installed in the EXT slot of the IX-EXPME2 expansion cabinet and provides support for 288 TDM ports. The IX-EXPIFE2 directly interfaces the IX-EXPIFCM card installed in the IX-CME cabinet and the IX-EXPIFE1 expansion cards installed in the IX-EXPME1 ECS expansion modules four and five. The IX-EXPMECBL and IX-CMECBL-L cables are required for a direct physical connection to the expansion cards.

³⁵ 192 MBU channels supported with G.729 compression. Maximum of 160 MBU channels at G.711 compression.

IX-HWYA and IX-HWYL TDM Highway Expansion Card

The IX-HWYA TDM Highway Expansion card is used to expand the Iwatsu Enterprise-CS TDM resources using legacy Iwatsu ADIX cabinets. The IX-HWYA card is installed in the EXT slot of the IX-CME cabinet and provides a connection to an IX-HWYL card installed in the common module of an ADIX APS, ADIX-M, or ADIX 450 system. The IX-CMECBL cable is required for a direct physical connection to the IX-HWYL. The Iwatsu Enterprise-CS will grow to a maximum of 616 TDM ports when the Iwatsu Enterprise-CS is expanded using ADIX APS cabinet hardware.

Station Interface Cards

The station interface cards interface the system universal ports to the individual station terminals. The following types of cards are available for the various station terminal applications.

IX-8PSUB-2 Eight-Port Digital Station Card

The IX-8PSUB-2 is designed specifically for the 5800 and 5810 Digital Key Telephones. This card is the interface for up to 8 5800 and/or 5810 digital stations to the ECS. Each circuit of the IX-8PSUB-2 card is star connected to an 5800 or 5810 digital telephone using #22/24 AWG one-pair twisted cable. Single-pair cable allows for bi-directional data transmission or ping-pong transmission. The loop limit of ECS digital station terminals is 1,000 feet. The loop limit can be extended to a maximum of 2,100 feet using IX-58EXTENDER installed in the KT.

The IX-400-2 daughterboard is an optional card for the IX-8PSUB-2 that interfaces central office/PBX circuits that provide caller ID service to the IX-CME Gateway Controller. The IX-400-2 daughterboard supports central office loop start trunks.

Ports: 8 ports/card.(and 4 loop start trunks with IX-400-2 card)

Stations: 1 port required for: 5800/5810

Note: Legacy Iwatsu telephones and devices, including the, DDPH door phone, PSUBMDM, IX-12KTD-3, Platinum 18d and 12d are not compatible with the IX-8PSUB-2 or IX-16PSUB-2. These telephones may only be connected to the IX-16PSUB, IX-8PSUB, IX-408, or IX-044 cards.

IX-8PSUB-1 Eight-Port Digital Station Card

An IX-8PSUB-1 card provides eight station terminal ports for Attendant Consoles, DSS Units and Digital Telephones that are connected through star wiring. Each port connects the station terminal with a two-wire cable that carries bi-directional data transmission (ping-pong transmission).

Ports: 8 ports/card.

Stations: 2 ports required for: IX-ATT,

1 port required for: Platinum 18d, Platinum 12d, Platinum DSS, IX-DSS-3, IX-BLF, IX-KTD/S-3, IX-12KTD-2, DCKT970 (may share a port with a key telephone), IX-DCKT900 (may share a port with a key telephone), IX-MKT, IX-COMLINK-2, IX-DDPH, IX-BLF, IX-MSGU (per channel), IX-BPAD, and IX-BPCU.

IX-16PSUB-2 Sixteen-Port Digital Station Card

The IX-16PSUB-2 is designed specifically for the 5800 and 5810 Digital Key Telephones. This card is the interface for up to 16 5800 and/or 5810 digital stations to the ECS. Each circuit of the IX-16PSUB-2 card is star connected to an 5800 or 5810 digital telephone using #22/24 AWG one-pair twisted cable. Single-pair cable allows for bi-directional data transmission or ping-pong transmission. The loop limit of ECS digital station terminals is 1,000 feet. The loop limit can be extended to a maximum of 2,100 feet using the optional IX-58EXTENDER installed in the KT.

Ports: 16 ports/card

Stations: 1 port required for: 5800/5810

Note: Legacy Iwatsu telephones and devices, including the DCKT970, DDPH door phone, PSUBMDM, IX-12KTD-3, Platinum 18d and 12d are not compatible with the IX-8PSUB-2 or IX-16PSUB-2. These telephones may only be connected to the IX-16PSUB, IX-8PSUB, IX-408, or IX-044 cards.

IX-16PSUB Sixteen-Port Digital Station Card

The IX-16PSUB card interfaces 16 digital station terminals to the Iwatsu Enterprise-CS. Each circuit of the IX-16PSUB card is star connected to an Iwatsu Enterprise-CS digital telephone, DSS Unit, or Attendant Console using #22/24 AWG one-pair twisted cable. If an IX-BPAD busy bypass unit is used with an Iwatsu Enterprise-CS digital telephone, #22/24 AWG two-pair twisted cable is required. Single-pair cable allows for bi-directional data transmission or ping-pong transmission. The loop limit of Iwatsu Enterprise-CS digital station terminals is 1000 feet. The loop limit can be extended using IX-4SLREPU star repeaters.

Ports: 16 ports/card

Stations: 2 ports required for: IX-ATT,

1 port required for: 18d, Platinum 12d, Platinum DSS, IX-DSS-3, IX-DSS-A-2, IX-BLF, IX-KTD/S-3, IX-12KTD-2, DCKT970 (may share a port with a key telephone), IX-DCKT900 (may share a port with a key telephone), IX-MKT, IX-COMLINK-2, IX-DDPH, IX-BLF, IX-MSGU (per channel), IX-BPAD, and IX-BPCU.

IX-4CSUB-3 Omegatrek Wireless System Interface Card

The IX-4CSUB-3 card is a required component in Iwatsu Enterprise-CS configured with the optional Omegatrek wireless communications system. This card provides four circuits for IX-BS5 Omegatrek Base Station termination. Each circuit connects an IX-BS5 base station using either two-wire or four-wire cabling.

Ports: 16 ports/card

Circuits: 4 circuits/card.

Stations: 1 circuit required for each IX-BS5 Base Station

IX-8SUBS-4 / IX-8ESUBS-4 Analog Station Card with Caller Id

The IX-8SUBS-4 supports eight on-premise or four on-premise and four off-premise (ports 5-8) single line telephone extensions, Caller ID, Caller ID for call waiting, and message waiting lamps (neon or LED lamps). An IX-8SUBS-4 can be expanded to support up to 16 single line telephones by adding an IX-8ESUBS-4 single line telephone expansion card. The IX-8SUBS-4 includes the DTMF receivers required for 2500 (touch-tone) type telephones and also provides a hardware loop open feature for Voice Mail Integration.

This card is designed with an on-board ring generator and power converters, the IX-DCDC and IX-RNGUM cards are not required with this card.

Ports: 8 ports/card, 16 ports/card when configured with the IX-8ESUBS-4 expansion card. 4 off-premise (SUBL mode) ports (Ports 5-8 only).

Stations: 2500 (Touch-tone) type telephones.

Additional Power: None

Loop Limit: 700 Ohms

IX-408 Eight-Port Digital Station/ Four-Port Caller ID Trunk Card

An IX-408 card provides eight digital station ports and four caller ID trunk ports. The eight station terminal ports for Attendant Consoles, DSS Units and Digital Telephones are connected through star wiring. Each port connects the station terminal with a two-wire cable that carries bi-directional data transmission (ping-pong transmission). The four caller ID trunk circuits interface the Iwatsu Enterprise-CS to four Caller ID loop start circuits.

Ports: 12 ports/card

Stations: 2 ports required for: IX-ATT,

1 port required for: IX-DSS-3, IX-BLF, IX-KTD/S-3, IX-12KTD-2, DCKT970 (may share a port with a key telephone), IX-DCKT900 (may share a port with a key telephone), IX-MKT, IX-COMLINK-2, IX-DDPH, IX-BLF, IX-MSGU (per channel), IX-BPAD, and IX-BPCU.

Additional Power: None

Features for Caller ID: 600/900 Ohm impedance selection, Long/Short distance selection

Trunk Interface Cards

Trunk interface cards interface the system universal ports to the individual outside trunks. Four types of cards are available to meet various outside communication requirements.

IX-8UNTK-1 Universal Analog Trunk Card

The IX-8UNTK-1 card is an analog trunk card that was developed for improving the speech quality of IP phones over analog trunks. This card employs a linear CODEC and a DSP-based echo canceller. The IX-8UNTK-1 card is equipped with eight circuits for analog trunks and Caller ID. Each of the eight trunks can be set as Loop Start or Ground Start as required. This card is UL approved for the IX-CME, IX-EXPME1, and IX-EXPME2 ECS expansion cabinets only.

Ports: 8 ports/card

Additional Power: -48Vdc (IX-DCDCM) when used as ground start trunks are equipped.

Features: Loop/Ground start selection, 600/900 Ohm impedance selection, Long/Short distance selection

IX-408 Eight-Port Digital Station/ Four-Port Caller ID Trunk Card

See description under Station Interface Cards.

IX-400-2 Four-Port Analog Caller Id Trunk Expansion Module

The IX-400-2 Caller ID trunk module is connected to the IX-8PSUB-2 card and interfaces four caller ID loop start circuits.

Ports: 4 ports/card

Additional Power: None

Features: 600/900 Ohm impedance selection.

IX-400 Four-Port Analog Caller Id Trunk Expansion Module

The IX-400 Caller ID trunk module is connected to the IX-044 card and interfaces eight caller ID loop start circuits.

Ports: 4 ports/card

Additional Power: None

Features: 600/900 Ohm impedance selection, Long/Short distance selection

IX-8IPNET / IX-8EIPNET IP Networking Card

The IX-8IPNET/IX-8EIPNET IP Networking card provides 8 ports for IP Networking use. The IX-8EIPNET is a daughterboard that can receive power from either the IX-8IPNET (for a combined total of 16 IP Networking ports) or the IX-8IPSUB (for a combined total of 8 IP Networking ports and 8 IP station ports). The IX-8IPNET / IX-8EIPNET IP Networking card interfaces with the Ethernet-based local area network (LAN) using one port on the LAN switch (or router if no switch is used) before passing the voice traffic over a fully managed network (such as a VPN).

The IX-8IPNET / IX-8EIPNET IP Networking cards use Session Initiated Protocol (SIP) to establish a connection on an as-needed basis.

Ports: 8 ports/card

Additional Power: None

Voice Compression: G.711 or G.729

IX-DTI-T T1 Trunk Interface Card

The IX-DTI-T card interfaces the Iwatsu Enterprise-CS to one T1 span and has the ability to support the following configurations: loop start trunk, ground start trunk, E&M trunk, E&M tie, DID trunk, ANI trunk, DNIS trunk, single line telephone, and off-premise telephone. In addition, the card may be configured to provide the following clocking options: Master, Slave-Primary, Slave-Backup or Slave-Private. The IX-DTI-T is not supported in the IX-CME when the IX-T1RCV Receiver card is required.

Ports: 8, 16, 24 ports/card

Features: loop, ground, E&M trunk, E&M tie, DID, ANI, DNIS, OPX, SLT

Other Requirements: IX-PLLU, IX-T1RCV (optional), IX-8ERCVC (optional)

Framing: SF or ESF with AMI or B8ZS

IX-T1RCV T1 DTMF Receiver Card

The IX-T1RCV is a receiver card that is only required if any of the T1 channels are receiving DTMF signals, i.e., DID, ANI, DNIS, E&M, TIE, or OPX. This card provides eight receivers, dedicated to the first eight channels, and allows the addition of two IX-8ERCV cards to provide a total of 24 receivers. Receiver circuits 9-24 are dedicated to channels 9-24 respectively.

Ports: None

Circuits: 8 DTMF Receivers

Location: Card slot to the right of the IX-DTI-T card

IX-8ERCV T1 DTMF Receiver Daughter Card

The IX-8ERCV is a daughter board card that mounts on the IX-T1RCV and provides an additional eight DTMF receivers.

Ports: None

Circuits: 8 DTMF Receivers

Location: IX-T1RCV (max of 2 per IX-T1RCV)

IX-DTI-P ISDN PRI Interface Card

The IX-DTI-P card interfaces the Iwatsu Enterprise-CS to one ISDN PRI (Primary Rate Interface) line. Each PRI line contains 23 B (Bearer) channels for voice and data transmission and 1 D channel for signaling.

Interface: 24 channels/card (23 B channels + 1 D channel)

Features: ISDN Primary Rate Interface

Shared Resource Cards

The Iwatsu Enterprise-CS offers shared resource cards that add more features to the system to meet the customer's applications. Some of these cards occupy system ports, but the features can be shared by the station terminals.

Application Server (IX-APPSRV-1)

The Iwatsu IX-APPSRV-1 Application Server card is an Intel® PC card that installs in an Enterprise-CS cabinet and serves as the PC host for Iwatsu TOL-IVM voice messaging, DVSA Analytics Call Recording, Status Solutions SARA 100 alerts and monitoring software, ECS Browser Programmer, and Iwatsu's Real IP applications including AccuCall-Web, Call Director, Virtual DSS, and PC Attendant. This card includes the following:

- Intel DN2800MT Mini-ITX motherboard with dual core Atom N2800 processor
- Clock speed: 1.86GHz
- 32GB Solid State Drive
- 4GB SO-DIMM RAM
- GPU: integrated Intel GMA 3650 (640 MHz)
- USB (front connector): 4x USB 2.0 (2 high current / fast charging)
- HDMI and VGA Ports: 1 each
- SATA and eSATA connectors
- LAN – 10/100/1000Mbps with Realtek 8111 DL Gigabit Ethernet Controller
- Operating System: Windows 7 32-bit
- Browser Based Programmer
- Location: ECS Cabinet (IX-CME, IX-EXPME1, IX-EXPME2) (ADIX not supported)
- ECS System Max::6

TOL-IVM Voice Mail (IX-APPSRV-1)

The TOL-IVM is a 4-port voice mail/automated attendant system installed on the APPSRV-1 card. It is equipped with 50 mailboxes and provides 1024 hours of message storage per 10GB of available disk space. The TOL-IVM card can be upgraded to a maximum of 400 mailboxes and 16 ports. TOL-IVM also supports up to 25 Advanced Mobility Clients that enable call handling from a smart phone, desktop call control and PC dialing. Voice mail to email message forwarding (SMTP forwarding) is a standard feature of the TOL-IVM.

Ports: 4 ports with optional upgrade to 16 ports

Mailboxes: 50 with optional upgrade to 400 mailboxes

Message Storage: 1024 hours per 10GB of available disk space

Memory: (APPSRV-1) 4 GB RAM and 32GB CFD

Encore Direct Call Logging

Encore™ Direct Call Logging from DVSA Analytics is installed on the Iwatsu ECS APPSRV-1 card and provides station-side IP phone call logging and retrieval. The base configuration is enabled to record 5 IP phones and can be upgraded to a maximum of 24 IP phones. Recordings are saved to a hard disk drive connected to the APPSRV-1 USB port or a network server. Growth beyond 24 IP phones requires an upgrade to the server-based Encore™ Small Business System or Encore™ Enterprise platforms. ICON Conference Server

The ICON Conference Server is installed on the Iwatsu ECS APPSRV-1 card and supports up to a 32-party conference with up unlimited number of conference rooms. Requires an IX-MBU card in the system and SIP ports must be enabled through licensing.

IX-EDVIF Miscellaneous/Serial Interface Card

The IX-EDVIF is a combination of the IX-SCIF and IX-MISC cards. This card provides two serial communication ports (RS232C) for Station Message Detail Recorder (SMDR) and an on-site programming terminal.

Ports: 2 ports

Data Speed: Printer-300/1200 bps, Terminal-1200/4800 bps

Communication Mode: RS232C

Note: SMDR is also provided through the serial port on the IX-CCU card.

This card also converts the system ports for input/output functions. These functions include an external BGM source, paging applications, remote control relays and sensor inputs.

Ports: 8 ports

Functions: BGM input, BGM amplifier control, output to paging amplifier, four paging zone control, 4 programmable relays and two sensor inputs.

IX-4EVMC Omega-Voice VMI Voice Mail System Card

The IX-4EVMC is completely compact flash based voicemail card with three type II compact flash sockets. Slot 1 contains a 64 MB Compact Flash Module (CFM) dedicated to system files and fixed system prompts. Should corruption occur, the IX-4EVMC also contains a backup volume to restore program files. Slot 2 contains a 256 MB or 512 MB CFM dedicated to customer data and voice, greeting and message files. Socket 3 is an expansion socket for full backups of customer data or other future uses.

Ports: 4 ports (8 ports/card with IX-4EVML Expansion Module)

Mailboxes: 600 (512 MB CFM)

Message Storage: 110 hours (512 MB CFM)

Compact Flash Drive: 512 MB for customer data

Audio Sampling Rate: 64 kilobits/second

Memory: 4 MB SRAM

IX-4SEVMC

The IX-4SEVMC is completely compact flash based voicemail card with one type II compact flash socket. The compact flash socket contains a 128MB Compact Flash Module (CFM) for system files and fixed system prompts and for customer data and voice, greeting and message files.

Ports: 4 ports

Mailboxes: 100

Message Storage: 25 hours

Compact Flash Drive: 128 MB

Audio Sampling Rate: 64 kilobits/second

Memory: 2 MB SRAM

VMI Editor Version: 3.02.13 or above

IX-VMAC Voicemail Adaptor card (Discontinued)

The IX-VMAC card is motherboard card used to install a VS-VML Voice Mail card in the Iwatsu Enterprise-CS. The VS-VML is installed on the IX-VMAC card.

Ports: 4 ports

Mailboxes: 50

Message Storage: 8 hours

Hard Drive: None

Memory: 6

Section 3 –

Iwatsu Enterprise-CS Features

This section explains some of the major system features in your Iwatsu Enterprise-CS.

911 Support

At default, Iwatsu Enterprise-CS is programmed to automatically contact your local Public Safety Answering Point (PSAP) when 911 is dialed. In addition, Iwatsu Enterprise-CS is one of the only systems that support Enhanced 911 Service. Enhanced 911 Service ensures that when 911 is dialed from a system extension, information that allows the PSAP to identify the caller's location in a building is sent to the PSAP along with the call. Check with your system installer or ICON Voice Networks Dealer to make sure your system is programmed for Enhanced 911 Service.

All Ring Hunt Group Name Display on Intercom Call

When an intercom call is placed to an all ring hunt group, the ECS can be programmed to display the calling party extension number and the hunt group name on the display of an Iwatsu ICON telephone. The primary purpose of this enhancement is to provide additional detail about the caller's location when integrating the ECS with a nurse call system.

Note: This feature is not supported on outside line calls to an all ring hunt group.

Alternate Tone/Pulse Dialing

Allows you to change the dial signaling from Dial Pulse (Rotary) to DTMF (Touch Tone) after an outside call has been answered. This will allow you to use enhanced communications devices like Voice Mail and Automated Attendant.

Auto-Discovery Mode

Iwatsu Auto-Discovery Mode is a propriety network protocol developed by Iwatsu that allows the ICON series 5930/5910 IP Telephone to automatically identify itself on the local network and connect to the ECS system. Iwatsu Auto-Discovery is available when the IP telephone is in the factory default configuration. If the IP telephone has been previously configured, the IP telephone can be defaulted or can be configured using the Manual Quick Setup or the Manual Setup Advanced.

Auto Ringing Mode

Enterprise Services 5.1 or higher is required for this application. The ring mode scheduling service on Enterprise Services will send either Ring Mode Change or ACD Night Change request to ECS based on the stored schedule.

Scheduling

Enterprise Services 5.1 is capable to schedule ringing change time for the system, each trunk group and each ACD group. The scheduling can program the following items for Weekday (Monday-Friday), Saturday, Sunday and Holidays.

- Time
- Ringing Mode for Day, Night, Day-2 or Day-3

Automatic Answer

When the Iwatsu Enterprise-CS is placed in the Automatic Answer Mode the system automatically answers incoming calls on lines assigned as Auto Answer Lines in the database programming. The system sends either the Mode 1 message (Automatic Answer-Time) or Mode 2 message (Automatic Answer - Day) to the caller, and then disconnects the call. The IX-MSGU is required for this feature. If a customized message is desired, the IX-CMSG-1 is also required. This feature may also be configured using the Omega-Voice VMI and Esnatech Officelinx automated attendant systems to direct callers to a specific automated attendant menu or mailbox automatically based on time of day/day of week or manually using a key on the attendant phone.

Automatic Night Answer

Allows an external caller to hear a recorded message when the system is in the Night Mode. This feature requires the installation of an IX-MSGU card. When the IX-MSGU card is equipped with an IX-CMSG-1 card, the recorded message may be customized. This feature may also be configured using the Omega-Voice VMI and Esnatech Officelinx automated attendant systems to direct callers to a specific automated attendant menu or mailbox automatically based on time of day/day of week or manually using a key on the attendant phone.

Automatic Repeat Dialing

Allows you to instruct the ECS to dial an outside party until they answer. Should they answer, you will hear their voice through the speaker. In order to establish a call, you must pick up their receiver. Should you be away from your phone when the called party answers, they will hear silence and the ECS will try to call later.

ANI Alphanumeric ID

ANI (Automatic Number Identification) numbers may be assigned a 16-character alphanumeric ID to identify the calling party, calling party's telephone number, type of call, or purpose of call. (**Note:** ANI calls are often transmitted by the telephone company with both a number and an alphanumeric ID.) The ANI alphanumeric ID is displayed on the station LCD when a call is received on an ANI trunk. A call can be routed to a station, master hunt group, or voice mailbox according to the ANI information received.

Attendant Position

Up to 32 ECS extensions may be designated as attendant positions. An attendant position typically consists of an ICON 5930, 5910 or 5810 phone with one or more ICON 59DS units or PC Attendant or Virtual DSS console.

Automatic Number Identification (ANI)

Iwatsu Enterprise-CS will support ANI trunks provided by the telephone company on T1, ISDN PRI, and ISDN BRI lines. The IX-DTI-T card is required for T1 lines, the IX-DTI-P is required for ISDN PRI lines, and the IX-4ICOTB is required for ISDN BRI lines.

Automatic Outside Line Release

Outside lines which are in a hold or trunk-to-trunk conference status are automatically disconnected when the outside party hangs up. The optional IX-4ETRAN card monitors the voice/tone signals from the outside line to determine if the call is terminated when a remote disconnect signal is not provided.

Background Music³⁶

If your Iwatsu Enterprise-CS is connected to an external music source, the music played may be heard through the speaker in any Iwatsu telephone connected to the system. This same music source may be played through an external paging system when the optional IX-EDVIF or IX-MISC/IX-MCAA card is installed.

Barge-In

Allows you to enter an existing call. A warning tone is sent to inform the parties that a three-way conference has been established.

Bluetooth

IX-58BTINF - The optional IX-58BTINF Bluetooth Interface module allows a Bluetooth headset to be used with the 5810 Digital Telephone. This is a Class 2 version 2.0 + EDR Bluetooth module that attaches to the 5810 circuit board and can be installed by your Iwatsu Authorized installer.

IX-59BTINF - The IX-59BTINF Bluetooth Interface module is an optional module available for the 5930 and 5910 IP Telephones. This is a Class 2 version 2.0 + EDR Bluetooth module. This optional module attaches to the 5930 or 5910 circuit board and can be installed by the Iwatsu Authorized installer.

³⁶ Not supported on IP telephones.

Browser Programmer

The Iwatsu Browser Programmer gives users access to system settings, extension settings, voicemail settings, trunk settings, and diagnostics. This new tool gives IT managers the ability to make changes, edit system settings, and view the status of IP traffic and network resources in real-time. The Browser Programmer supports up to 10 concurrent users (web sessions).

The Iwatsu Browser Programmer provides access to system settings, extension settings, voicemail settings, trunk settings, and diagnostics giving IT managers the ability to manager their system and monitor in real-time. The Browser Programmer supports up to 10 concurrent users (web sessions).

The ECS Browser Programmer comes pre-installed on all Iwatsu Enterprise TOL platforms, Iwatsu Enterprise Application Gateway Servers, and the IX-APPSRV card. The Browser Programmer was designed to be used primarily with Iwatsu Enterprise-CS IP systems, but it can also be used with TDM systems. A new browser-based Configure My Phone application is also included with the Browser Programmer. In the graphic below, the administration page of the programmer shows the status of the ECS system at a glance.

The screenshot displays the 'ECS Administration Page' in a web browser. The page is divided into several sections:

- Navigation:** Home, Administration (selected), Diagnostics.
- Left Sidebar:** Administration, Status, Hardware, Extensions, Feature Codes, Trunks, SIP Trunks, Trunk Groups, System Settings, System Speed Dial, System Text Hugs, VM Integration, VM/AA Packet Codes, Paging / Hunt Group, Inbound Call Control, ACD, Outbound Call Control.
- ECS Connection:** A green status indicator.
- System Information:**
 - System Name
 - CCSU Serial Number: 001845
 - ECS Software Version: 10.00 (R.02)
 - ECS Database Version: Enterprise 10.0
- Lines:**
 - Configured Stations: 597
 - Configured DSS Units: 7
 - Configured Trunks: 168
 - Configured Mac: 21
 - Total Configured Ports: 793
 - Port Licenses: 1024
 - IPKT Licenses: 176
- Network (LAN 2 and LAN 1):**
 - LAN 2: IP Address, Subnet Mask, Default Gateway.
 - LAN 1: IP Address, Subnet Mask.
- MBU 1:**
 - Version: 01.23
 - MAC Address
 - Static IP Address
 - Subnet Mask: 255.255.0.0
 - Default Gateway
- Licenses:**
 - ECS Basic License (1024-Ports), Total-1024
 - ECS IPKT Station, Total-176
 - ECS SIP/H.323 Client, Total-150
 - ECS IP Campus Host
 - ECS IP Campus Remote, Total-2
 - ECS Multi-Tenant, Total-16
 - ECS Station Profile, Total-17
 - ECS IP Softphone Client
 - ECS ACD Turn-On
 - ECS SMDR
 - ECS CSTA via LAN Port
 - ECS ACD Events
 - ECS Software Upgrade V10.0

Browser-based system administration

The screenshot displays the 'Phone Settings for Station 2316' page. It features a grid of key mappings and a list of features on the right.

Key Mapping #381: Copy from: Template, 5800/5900 Square, Copy.

ICN	HBOX	A-LOG	ACD
37	0	62	76
PWD	PARK	UNV	ACDTRN
38	53	63	76
CALLOG	FLT	WRP	DSS
39	54	69	2320
INT DIR	FLT	SPD	DSS
40	55	70	2339
ADD	MOB	LND	HEADCT
41	56	71	86
DSS	NONE	DSS	DSS
2201	17	2319	9
DSS	NONE	DSS	DSS
2321	18	2317	10
DSS	NONE	DSS	DSS
2261	19	2319	11
DSS	NONE	DSS	DSS
2341	20	2212	12
DSS	NONE	DSS	DSS
2231	21	2365	13
DSS	NONE	DSS	DSS
2210	22	2314	14
DSS	NONE	DSS	DSS
2214	23	2208	15
DSS	NONE	DSS	DSS
2330	24	2314	16

Features: Abandoned Calls, ACD, Call Coverage & DSS, Call Pick-Up, CO Calls, Conferencing, Features, Headset Operation, Hold/Park, Hotel Mode, Paging, Speed Dial, Station Calls, Text Messaging, Voicemail.

Browser-based station user editor

Built-In Speakerphone

Many Iwatsu Enterprise-CS Telephones come equipped with a standard Built-in Speakerphone. An internal speakerphone is also optional on some units. Use of the Speakerphone allows for complete hands-free operation on external calls.

Busy Bypass Tone Calling

Allows you to be informed that there is a second call waiting for you to answer. This is accomplished by providing a muted tone through the speaker in the busy telephone. External and internal calls may be differentiated by frequency. This feature is a system programming option and may not be present in all systems.

Busy Intercom Callback

Allows you to instruct the ECS to inform you when a busy extension that you called becomes idle. When the extension becomes idle, the ECS will call you back. After you answer, the desired extension will automatically be dialed. If your phone has a display, the display will inform you that the call is a Callback and identify the extension. You may leave one Callback message.

Call Coverage

The Multipurpose keys on the Digital Telephones may be programmed to allow both audible and visual indication of a call ringing at another extension. Calls made to an extension that is represented as a Call Coverage key on another phone may be answered by that phone by pressing the Call Coverage key.

Call Divert

A station user can divert an incoming ringing call by pressing the **MBOX** key to activate the **Call Forward No Answer** process. The Fixed Call Forwarding Destination **must** be programmed in the ECS database by your system installer. It can also be accessed through the Iwatsu phone browser programmer.

Call Forwarding

Enhanced Call Forwarding

Enhanced Call Forwarding on Iwatsu ICON Series 5810, 5910, and 5930 telephones allows you to program up to three forwarding destinations. An external telephone number can be entered as one of the forwarding destinations as well as access numbers to unified communications applications such as Esnatech Officelinx.

Fixed Call Forwarding

Allows your Iwatsu Enterprise-CS installer to predefine call forwarding patterns for extensions. Fixed Call Forwarding does not activate the lamp on the Call Forward key [FWD] and calls will always forward in the programmed sequence. Fixed Call Forwarding may be overridden by Call Forwarding entered at your telephone. All three forwarding modes may be programmed for Fixed Call Forwarding.

Flexible Call Forwarding

Allows the user to forward calls to an internal destination or an outside telephone number (using Personal Speed Dial numbers 90-99). The user can set separate call forward destinations for internal incoming and outside line incoming calls. For instance, you could set all intercom calls to go to your cell phone, and all outside line calls to be forwarded to your voice mail. The Flexible Call Forward feature also incorporates Follow-Me capabilities.

Follow-Me Call Forwarding

Follow-Me Call Forwarding allows you to forward outside and/or intercom telephone calls to your station from another extension. For example: While away from your desk at another extension, you can forward your extension to your new temporary location. When you return to your desk, simply cancel forwarding as you would for Flexible Call Forwarding.

Remote Call Forwarding

Allows you to direct outside line and/or intercom telephone line calls to forward to an external telephone number (using Personal Speed Dial numbers 90-99). Example forwarding locations include an answering service, a car telephone, or a home telephone.

Call Hand-Off with Mobility Key

The Call Hand-Off feature allows the seamless transfer of an active call from an Iwatsu ICON Series 5930, 5910,

or 5810 (only) to another phone (e.g., cell phone or another ECS extension) using the Mobility key. The Mobility key will display up to eight selectable internal or external destinations based on location settings defined in the Esnatech Officelinx UC Client Manager. This feature works in tandem with Esnatech Officelinx version 8.0 and above and requires Iwatsu Enterprise-CS software version 8.0 and above.

Call Log

Your Iwatsu ICON Series 5810, 5910, and 5930 telephones are programmed to capture, store, and display telephone numbers and Caller ID information for the last 10 Incoming and 10 Outgoing calls with Caller ID, ANI, or DNIS information and date and time stamp.

Call Logging

With the optional Encore™ Direct Call Logging installed on the Iwatsu ECS APPSRV-1 card you can log, save and manage calls to IP phones connected to the system. Encore Direct supports maximum of 24 IP phones. Growth beyond 24 IP phones requires and upgrade to the server-based Encore Small Business System or Encore Enterprise platforms.

- Easy-to-use recording retrieval. A powerful filter wizard helps you locate the recordings you want quickly and easily. Search and retrieve recordings by extension number, ANI, DNIS, etc., or use the built-in quick search functions such as Most Recent, Yesterday, and Duration to immediately find the recordings and call data you need.
- Email recordings with a click. Send recordings in standard Windows-compatible formats to customers for conflict resolution or to agents for best practices examples or coaching tips.
- Archive Recordings. Set archiving rules based on your business needs and change them as needed with our easy-to-use administration tool.
- Defined Migration Path. Customers can easily migrate from Encore™ Direct to Encore Small Business System or Enterprises System as their organization grows.

Call Park/Swap

Park a call so that it can be answered from another extension.

Call Pick-Up

Allows you to answer a call ringing at someone else's phone. There are three types of Call Pick-Up: Direct Call Pick-Up, Internal Group Call Pick-Up, and External Group Call Pick-Up.

Direct Call Pick-Up

Allows you to answer a call ringing at any extension in the office.

Internal Group Call Pick-Up

Internal Group Call Pick-Up allows extensions to be grouped together. This grouping eliminates the need to dial the ringing extension number in order to answer the call.

External Group Call Pick-Up

Allows you to answer a call ringing in a Call Pick-Up Group that they are not part of.

Call Recording

The Call Recording feature allows an Iwatsu Enterprise-CS station user to record a station-to-station, outside line, or conference call to their voice mailbox. This feature is available at any station that has been assigned a Call Recording REC key.

IMPORTANT NOTICE REGARDING THE CALL RECORDING FEATURE:

In certain states it is illegal to intercept and/or record telephone calls.

In certain states and under certain circumstances it is illegal to intercept for the purposes of listening in and/or recording telephone calls. Because such activity is not illegal in all jurisdictions and may be permitted in training and/or monitoring of personnel, this telephone system can be programmed to permit interception and/or recording

with or without warning to those on the line. Before utilizing the system for such purposes, you are advised to consult with an attorney familiar with laws of the jurisdiction in which you utilize such feature.

ICON VOICE NETWORKS, its dealers, and the manufacturers responsible for this feature make no representations with respect to the legality of its use and disclaim any liability for claims and/or damages arising from the use or misuse of this feature.

Caller ID Alphanumeric

The Caller ID alphanumeric ID either provided from the telephone company, or programmed in the ECS database is displayed on the Iwatsu ECS phone LCD when a call is received on a Caller ID trunk. A call can be routed to a station, master hunt group, or voice mailbox according to the Caller ID information received. Caller ID numbers can also be assigned a 16-character alphanumeric ID in the Iwatsu ECS database to identify the calling party, calling party's telephone number, type of call, or purpose of call. During a call, you may change the way the call information is displayed by pressing the [CID Display Change] key. There are ten different display modes available to assign to the [CID Display Change] key. You can scroll through each programmed display mode choice each time you press the [CID Display Change] key.

Caller ID / ANI Number Storage

When a call is received on a caller ID or ANI line, the Iwatsu Enterprise-CS will capture and store in the system memory information about the caller received with the call. This information includes the caller's telephone number and name, date and time of the call, trunk number, and destination station. This information can be output as a system event code or to SMDR. Information for the 500 most recent calls can be stored in the system memory on a first in, first out basis. Two modes of storage are available for this feature:

Abandon Call Storage. When Abandoned Calls Only is selected as the storage mode for this feature, information will only be stored for the following types of calls:

- Caller hangs up or is disconnected before the call is answered.
- Caller hangs up or is disconnected while on hold or during hold recall.
- Caller hangs up or is disconnected during camp-on transfer or camp-on recall.

All Call Storage. When All Call is selected as the storage mode for this feature, the system will capture and store information about the caller received with the 50 most recent calls on caller ID or ANI lines.

Caller ID Display for Held/Parked Calls

The Caller ID Display on Hold / Park feature enables an Iwatsu ICON Series 5810, 5910, 5930 and 59DS to display the Caller ID name or number information of a call placed on hold or park from a self-labeling key. This feature is enabled for all or disabled for all of the following keys on a specific station.

- CO Line Keys
- Float Keys
- Individual Park Keys
- Group Park Keys

In order to display the key(s) must be programmed as a self-labeling feature key on the Iwatsu ICON Series 5810/5910/5930/59DS.

Caller ID Pass Through on Transfer to External Number

The Iwatsu ECS can be enabled to send the original caller ID received from an incoming CO call when the call is transferred or forwarded to an outside number through a PRI or SIP trunk. If the PRI or SIP carrier accepts replacement of the calling party number, then the called party can see the original caller ID instead of the caller ID of the Iwatsu ECS.

Note: Not all PRI and SIP trunk service providers accept changes to the Calling Party Number (CPN). This feature is not applicable with those service providers. ICON Voice Networks dealer is responsible for verifying service provider support for this feature.

Caller ID Trunks

Iwatsu Enterprise-CS will support Caller ID trunks provided by the phone company. One of the following cards is required to support this feature, IX-8PSUB-2 with the IX-400-2, IX-8UNTK, IX-8CITK, IX-408 or IX-044 with IX-400.

CCSU Serial Number / ECS Software Version Display

The IX-CCSU Serial Number and ECS Software Version Display feature allows a technician or user to display the last six digits of the IX-CCSU Serial Number and the ECS Software Version from any attendant position by dialing FEATURE + 93.

Camp-On

Allows you to alert a busy extension user that an outside call is waiting for them to answer. The busy extension user will hear periodic tone bursts through the speaker. If they have a display, the display will first indicate the extension that sent the call followed by CAMP-ON. If the busy extension does not respond within a specified period of time, the call will return back to you.

Clear Call

Allows you to initiate a new intercom call without having to hang up if the called extension does not answer or if there was a dialing mistake.

Conference

The Iwatsu Enterprise-CS allows you to converse with three other people in one call. There may be any combination of inside extensions or outside lines.

Consultation Hold

Places an outside call on temporary hold before a transfer or conference is completed. The call will automatically return to you if the desired transfer extension does not answer or if you dialed incorrectly. If you have a display on your phone, the display will show Camp On RCL and the name of the person that the call was sent to.

Delayed Ringing

Allows outside lines ringing at a telephone to ring at another telephone or group of telephones after a predetermined period of time.

Dialed Number Identification Service (DNIS)

ECS supports DNIS name and number on SIP trunks, T1, ISDN PRI and ISDN BRI lines.

DNIS Alphanumeric ID

Based on programming, the DNIS (Dialed Number Identification Service) alphanumeric ID is displayed on the station LCD when a call is received on a DNIS trunk. A call can be routed to a station, master hunt group, or voice mailbox according to the DNIS information received. DNIS numbers can be assigned a 16-character alphanumeric ID through Iwatsu ECS programming or by the service provider.

The information displayed on the station LCD during calls on DNIS lines may be customized through database programming. During a call, you may change the way the call information is displayed by pressing the [CID Display Change] key. There are ten different display modes available to assign to the [CID Display Change] key. You can scroll through each programmed display mode choice each time you press the [CID Display Change] key.

Through programming, the number of calls permitted to simultaneously ring in on a specific DNIS number can be limited and overflow to voice mail, another extension or disconnected.

Direct Inward Dial (DID) Trunks

Iwatsu Enterprise-CS support DID numbers provided by your service provider. This service, typically offered on PRI and SIP lines, allows any number of telephones to be called directly from the outside without the need of having a dedicated circuit for every telephone. DID numbers are available from your SIP trunk, ISDN PRI/BRI or T1 service provider.

Through programming, the number of calls permitted to simultaneously ring in on a specific DID number can be limited and overflow to voice mail, another extension or disconnected.

DID Alphanumeric ID

DID (Direct Inward Dial) numbers may be assigned a 16-character alphanumeric ID to identify the party being called, type of call, or purpose of call.

DID Number External Call Forward

An Iwatsu Enterprise-CS digital telephone programmed for direct termination of a DID, Caller ID, ANI or DNIS call can be set to automatically forward these calls to a remote location.

Direct Inward Line

Each outside line can be assigned to ring at up to 32 extensions. A different ringing assignment can be programmed for the different day and night modes. A ringing tone for each line can be selected from four available ringing tones. If a delayed ringing assignment is programmed for the line, the ringing changes to an incoming alarm when delayed ringing begins.

Direct Inward Line - Hunt Group

Outside lines can be programmed to ring at the stations assigned to a hunt group. Incoming calls will ring at the first available station in the hunting sequence or all stations simultaneously based on programming. The same trunk can be assigned to ring at different hunt groups for day and night modes. If a station is busy or does not answer within the preset time, the call will ring at the next station in the hunting sequence.

Direct Outside Line Appearance

IP and Digital Telephones may have Multipurpose keys programmed as an outside line for incoming and outgoing calls.

Directory

The Iwatsu ICON Series 5810, 5910, and 5930 phones are equipped with a directory for access to system extensions, external system speed dial numbers, personal speed dial numbers, and direct speed dial number access. A name must be assigned to the speed dial number in order for it to appear in the directory.

DISA

Direct Inward System Access (DISA) allows an external caller to access ECS intercom dial tone by dialing the telephone number of an outside line that is dedicated for DISA. DISA gives the external caller the ability to access voicemail, make calls, access system paging, and set station call forwarding. The feature operations for DISA calls are the same as those for the Single Line Telephone. Use of DISA for external calls and paging requires the entry of a security code to control fraudulent use. Please note that it is the responsibility of the end user to ensure the security codes are secure. ICON Voice Networks cannot control the distribution of security codes and will not be held responsible for unauthorized toll calls.

The IX-RMPU card is required for DISA operation.

Distinctive Ringing - Outside Line Calls

Each outside line can be assigned one of four available ringing tones. This feature applies only to Iwatsu Key Telephones.

Distinctive Ringing - ICM/Outside Line

Intercom and outside line calls provide different ringing tones.

Do Not Disturb (DND)

Allows you to make your phone busy so you will not be interrupted by phone calls. However, the following type of calls may override Do Not Disturb: DSS Calls, Operator Calls, Secretarial Calls and Executive Override Calls.

Dynamic Host Configuration Protocol (DHCP) Controller

The IX-CCU on-board DHCP controller allows the Iwatsu Enterprise-CS to dynamically assign up to 1024 IP addresses to IP stations and devices in the system.

Exclusive Hold

Allows you to place an outside call on Hold that cannot be picked up by another extension.

E-Response Help Call

The E-Response Help Call feature allows specific system extensions to simultaneously call a group of extensions and access a system paging port upon dialing a dedicated intercom group access number or, if the station remains off-hook on Intercom without dialing for a programmable period of time. This feature is also activated when the dialing of an Intercom call is initiated but not completed within a specific amount of time. This feature may also be programmed to have Iwatsu Enterprise-CS access system paging when a station makes an E-Response Help Call.

Executive Override

Is the same as a Busy Override with the additional ability to override an extension in Do Not Disturb. This override may be either a voice announcement or tone signal.

Extension Number Display

Allows you to display your extension number on the display of an Iwatsu IP or digital telephone equipped with an LCD.

E911 Notification to Email

Use ICON Enterprise Services to receive an email notification when an E911 call is made or attempted on a phone connected to the ECS. This feature requires an ECS SMDR license and an Enterprise Services E911 Notification license.

External Paging

Iwatsu Enterprise-CS may be connected to an external paging system when the optional IX-EDVIF card is added. Each IX-EDVIF will support four zones of paging.

Feature Key Display

Allows you to display the function of your telephone's feature keys.

Flash

Allows you to receive dial tone on the same outside line without having to hang up. Flash may also be used to receive intercom dial tone to place another intercom call. Two different Flash settings may be programmed to allow for the use of Centrex or PBX features.

Flexible Numbering

Iwatsu Enterprise-CS has a flexible numbering plan. The numbers assigned for intercom extensions, outside lines/groups, paging, hunt groups, park orbits, and single line telephone feature codes are not fixed and may be up to four digits in length.

Flexible Ringing

Outside lines directed to telephones may be assigned one of four tones to provide an audible identification of the type of call.

Floating Outside Line Group Access

Allows for a number of outside lines to be assigned to one of 250 groups. These groups may be used for incoming calls, outgoing calls or both incoming and outgoing calls.

Forced/Verified Account Code

Requires you to enter a 1-12 digit code to make outside calls. These codes may be either fixed or variable in length and each telephone may be programmed for one of the four following account code entry options.

FORCED-TOLL: code entry required only for toll calls

FORCED-ALL: code entry required for all calls

VERIFIED-TOLL: code entry required only for toll calls

VERIFIED-ALL: valid code entry required for all calls

A table of 10 phone numbers may be programmed to allow calling without account code entry. This option is very helpful because it allows important emergency numbers to be dialed by anyone. The verification table, for verified account code entry, shares memory with System Speed Dial and may contain 2000 account codes. The Forced/Verified Account Code programming allows the option of having or not having the account displayed on the LCD of the phone and the SMDR printout.

Full/Half-Duplex Speakerphone Mode Switching

The Iwatsu ICON Series, Platinum Series, and IX-12KTD/S-3 Digital Key Telephones can be changed from full-duplex to half-duplex through the operation of the **Speaker Duplex** key. The IX-12IPKTD/-E uses an internal DSP to automatically switch from full/half-duplex.

Group Monitoring

Allows you to let others listen to your call through the speaker of the phone while you converse with the receiver. To use this feature, Group Monitoring must be enabled.

Group Park

By placing a call on Group Park all extensions with the appearance of that Group Park key will have a flashing indication and be able to pick up that call.

Hands-Free Answerback on Intercom

Allows you to answer an intercom call without lifting the receiver. The microphone may be turned off if desired.

Headset Control Key

The **Headset Control** key for use with the Iwatsu ICON Series, Platinum Series, IX-12KTD/S-3 Digital Key Telephones and the IX-12IPKTD/-E IP Telephones allows you to control a headset without using the **Connect** or **Release** key. This key is also supported on the IX-12KTD-2, but requires a headset adaptor box to switch the audio between handset and headset. This key is a replacement for the **Headset** key.

Iwatsu recommends placing a Headset Control key in the key pattern of your Iwatsu ICON Series telephone when a Bluetooth headset is used.

Headset Key

Allows you to alternate between using the handset (receiver) and the headset.

Headset Connection

ECS telephones may operate with a headset instead of the handset (receiver). Most Iwatsu telephones³⁷ have an integrated headset jack on the back of the phones. Phones without an integrated headset jack requires the handset to remain in the cradle of the telephone and the headset control key to be switched to the ON position.

Note: Refer to the Bluetooth section in this chapter for information regarding Bluetooth headsets.

Hold

The **HOLD/QUICK FORWARD**³⁸ key is used as an option to the **Hold/DND** key. This key provides the same feature as the **Hold/DND** key except callers are sent to the Fixed Call Forward destination (such as voicemail) instead of hearing a DND tone.

Hot Line

If your phone is programmed to have this feature every time you lift the receiver or press the Speaker key **SPKR** a call will be placed to a predetermined extension.

Hotel/Motel Features

The ECS software includes features specific to the Hotel/Motel industry. These features include Intercom Call Restriction, Message Waiting Notification, Room Status indication and Wake-Up Call. Each feature is described below.

³⁷ Check the specification of the Iwatsu telephone model you are using to determine if it supports a headset jack.

³⁸ Hold/Quick Forward is the default setting for the Hold/DND key in the Iwatsu ICON Series telephones.

Intercom Call Restriction

ECS may be programmed to restrict guest rooms from calling each other to eliminate prank calls. Guests may still make intercom calls to the Hotel/Motel's administrative extensions.

Message Waiting Control

Message Waiting Control allows you to inform a guest that there is a message waiting for them by lighting the Message Waiting Lamp on the telephone in their room. This operation allows you to send a message without having the telephone ring.

Room Status

The keys on a Direct Station Selection Unit (DSS) may be programmed to inform you of the status of your guest rooms. There are nine status indications:

Room Status	Key Lamp	Outside Calls
Vacant-Ready	off	no
Vacant-To Be Cleaned	red-fast flash	no
Vacant-Cleaned	red-slow flash	no
Occupied (In Room)-Ready	green	yes
Occupied (In Room)-To Be Cleaned	green & red-fast flash	yes
Occupied (In Room)-Cleaned	green & red-slow flash	yes
Occupied (Out of Room)-Ready	green-slow flash	no
Occupied (Out of Room)-To Be Cleaned	green-slow flash & red-fast flash	no
Occupied (Out of Room)-Cleaned	green-slow flash & red-slow flash	no

When the status of a guest room is changed from the OCCUPIED (IN ROOM) status category to another category, the guest room telephone will be restricted.

The maid may change the status of the guest room from TO BE CLEANED to CLEANED by dialing a code from the guest room telephone. The supervisor, after inspection of the cleaning, may change the status of the guest room from CLEANED to READY (CLEANING CONFIRMED) by dialing a code from the guest room telephone.

Wake-Up Call

Wake-Up Call allows you or a guest to enter a wake-up time. Guests are notified by having their telephone ring five minutes prior to the time that was set. If there is no answer to the first attempt, ECS will call the guest room at the time set.

The guest room telephone will ring five times. When the receiver is lifted the guest has the option of hearing Music On Hold or either a prerecorded or customized message if the system is equipped with the Message Card and associated hardware.

Wake-Up Call Report

If a serial printer is connected to your Iwatsu ECS system you can have the status of Wake-up Call attempts printed as they occur.

An example of the print out is below.

DATE	TIME	TEL	ANSWER
07/29	08:20	230	O

The result of the call attempt is shown under the ANSWER column.

O = Call was answered

X = Call was not answered

Howler Tone

If your receiver remains off the receiver key too long after no action is taken, the ECS will provide a tone to alert you of this condition.

Hunt Groups (Terminal, All Ring And Distributed)

A hunt group is a group of telephones that is assigned a common access code. When this code is dialed, Iwatsu Enterprise-CS will search for an idle telephone in that group. There are three ways that calls may search for an idle extension, Terminal Hunting, Distributed Hunting and All Ring Hunting. In Terminal Hunting the incoming calls always start hunting from the first telephone in the group. In Distributed Hunting the incoming calls start hunting from the telephone following the last called telephone. In All Ring Hunting, all telephones in the hunting group ring simultaneously. In both the Terminal Hunting Group and the Distributed Hunting Group, calls will hunt to the next telephone if a telephone does not answer in a predefined period of time, is busy, or in the Call Forward, Absence Message or Do Not Disturb mode.

Intercom (ICM)

All telephones in an Iwatsu Enterprise-CS can make station-to-station intercom calls that are either hands-free or tone calls based on programming. Intercom calls between Iwatsu IP phones are peer-to-peer and do not require an IX-MBU.

Intercom Group Call

Allows any system extension to simultaneously call a group of extensions that are part of an Intercom Group. When an extension dials the Intercom Group access number, all of the stations in the Intercom Group will be called simultaneously.

Internal Paging

Any of the Iwatsu Enterprise-CS telephones may make a page announcement that will be broadcast through the speaker of assigned phones. **Note:** Internal paging to the speaker of IP phones is not supported.

ISDN PRI Features

The IX-DTI-P card is required for ISDN PRI line integration. Iwatsu Enterprise-CS supports the following features on ISDN PRI Lines:

Call-by-Call Service Selection

The Call-by-Call Service Selection feature is an additional service provided over ISDN PRI Lines that enables a single span to handle different types of Network Specific Features (NSF) without requiring dedicated channels for each NSF. Iwatsu Enterprise-CS Software supports four Call-by-Call NSF services:

- In-WATS
- Out-WATS
- FX (Foreign Exchange)
- E&M Tie Trunk

ISDN Calling Number Identification Service (I-CNIS)

Iwatsu Enterprise-CS supports the ISDN Calling Number Identification Service (I-CNIS) feature on ISDN PRI lines. This feature is available from many ISDN PRI service providers. The I-CNIS number is sent with a call over an ISDN PRI line. It identifies from where the call originated.

Fractional DS1

This feature allows individual B-channels on the span to be programmed as active or inactive. A separate agreement with the ISDN service provider is necessary for performing fractional DS1. This service may not be available in all areas.

Last Number Redial

Allows you to automatically dial the last outside number called.

LCD Backlight Duration

The LCD backlight timer can be adjusted for each 5930, 5910 and 5810 phone.

Loud Bell Interface

Outside telephone lines may be directed to ring a loud bell when Iwatsu Enterprise-CS is equipped with the optional IX-EDVIF card. Each IX-EDVIF card has the ability to support four loud bells.

Malicious Call Identification (MCID) Key

If a station receives a malicious (i.e., harassing, threatening, obscene) call via a PRI circuit, the user can initiate a Central Office Malicious Call Identification (MCID) request by pressing an MCID key programmed on their Iwatsu ICON series telephone. If the central office (CO) supports the Malicious Call Identification service, the CO will send the call data to the appropriate public safety office.

Master Hunt Groups

The Iwatsu Enterprise-CS allows extensions to be programmed into Hunt Groups. Each Hunt Group is assigned an access code and when dialed the system searches for the first idle extension.

Memo Dial

Allows you to save a telephone number in memory while you are speaking on an outside line. The memory is shared with Save Number Redial.

Message Waiting – Absence Message

The Absence Message feature³⁹ allows you to light a lamp at another extension to inform them that you wish to speak with them.

Microphone Cut-Off

Allows you to disable the microphone in your phone for privacy.

Music On Hold

If your Iwatsu Enterprise-CS is connected to an external music source, the music played may be heard by callers that have been placed on Hold or Call Park. In addition, Iwatsu ICON 5900, 5910 and 5930 IP phones and legacy Iwatsu IP phones can be programmed to play MOH or silence when placed on hold while on an intercom call.

Networking – IP Campus

IP Campus Networking uses a VPN or managed IP network to create a 100% transparent network with up to 24 remote nodes and / or 1024 total ports. IP Networking converges and exchanges your voice and data traffic between offices anywhere worldwide via IP addressing. The IP Campus network is easy to install and configure providing full transparency over the IP network. IP Campus is able to maximize bandwidth by allocating it as needed and by allowing each system node to generate all tones (dial tone, ring back tone, etc.) and process all call switching locally, under the control of the main IP Campus system.

Networking – IP-NET

IP-NET Networking provides a cost-effective solution for networking two or more autonomous ECS telephone systems together over a managed IP circuit or Virtual Private Network (VPN). Using the IX-8IPNET/IX8EIPNET card, IP-Net supports station-to-station dialing between sites, call routing based on DNIS, DID or caller ID/ANI via the IP-NET connection, centralized voicemail and centralized SMDR.

³⁹ By default, this feature is not supported and must be enabled by your authorized dealer. Please note that enabling this feature restricts voice mail access. Consult with your authorized dealer for details.

Networking – T1 E&M Tie Lines

Multiple Iwatsu Enterprise-CS systems may be networked using T1 E&M Tie Lines. DID, ANI/DNIS, and Caller ID calls may be routed through the network to a remote Iwatsu Enterprise-CS. An Iwatsu Enterprise-CS also provides Caller ID/ANI/DNIS number display over the network. Message lamps will light at distant extensions. Other networking features include 800 Network Translation tables, centralized SMDR, centralized voice mail, release operation on T1 E&M Tie Lines, access to the network from DISA, and intercom calling between multiple remote systems.

Off-Hook Outgoing Call

This programming option allows you to automatically dial an outside party by simply picking up the receiver. This feature makes use of the System Speed Dial feature.

Off-Hook Outside Line Answering

Allows you to answer an outside call without having to press the key representing the ringing line.

Off-Hook Outside Line Queuing

Allows you to instruct the ECS that you wish to wait for an outside line when all outside lines are busy.

This feature is used only when outside lines are grouped to appear under one or several outside line keys.

Omega-Voice VMI Menu Integration

When the Iwatsu ECS includes the Omega-Voice VMI IX-4EMVC voice mail card, Iwatsu ICON Series 5930, 5910, and 5810 telephones display voice mail menu guidance to help you navigate the voice mail menu options when you dial in to check messages or change settings.

On-Hook Dialing

Allows you to dial an extension or outside line without having to lift the receiver. The receiver must be picked up to converse if your phone is not equipped with a Speakerphone.

Optimized Routing

Optimized Routing is frequently referred to as either Least Cost Routing (LCR) or Automatic Route Selection (ARS). This feature allows Iwatsu Enterprise-CS to automatically select the most inexpensive way to make an outgoing call. The system identifies the dialed number, and then selects the most cost-effective outside line group. If a line in the first choice outside line group is not available the system may be programmed to select an alternate outside line group. Stations may be programmed as Forced Optimized or assigned an Optimized Key. The Optimized Routing package in the Iwatsu Enterprise-CS provides the following features:

- 64 route plans
- 64 Routing Classes of Service per route plan
- Weekday, Saturday, Sunday, Holiday selection
- Three time periods per day
- Deletion and insertion of digits
- Forced Optimized, One-Touch Optimized Key, Prime Line to Optimized.

Outside Line Call Restriction

The system can be programmed to restrict any phone from making outside line calls on specified outside line groups.

Outside Line Pick-Up Restriction

The system can be programmed to restrict stations from accessing incoming calls on specific outside lines. Three different levels of restriction are available. This does not affect the restricted stations ability to make outgoing calls on these lines.

Paging

The Iwatsu Enterprise-CS provides three types of paging:

All Call

Allows you to make an announcement either through the speakers in the Digital Telephones and/or an External Paging System.

Group Call (Internal)

Allows you to page through the speaker in a group of phones. There may be 125 groups with a maximum of 64 extensions per group.

Zone (External)

Allows you to access individual groups of external paging speakers.

Meet-Me Page Answer

Allows you to answer a page from any phone that is in the same Meet-Me Page Answer group.

Personal Ring Tones

Station users may choose one of eight distinctive ring tones to distinguish their station from others. The selected ring tone is audible for all incoming CO calls, camp-on calls, (tone) intercom calls and during busy override.

Power Failure Backup Memory

In the event of a power failure, the system programming will be maintained in memory for a period of two weeks.

Power Failure Backup System

A gel cell battery array may be connected to the Iwatsu Enterprise-CS to insure full system operation in the event of a power outage. The optional IX-BACBB (Battery Backup Cable) is required for backup battery connection.

Preset Dial/Backspace Dialing

This programming option allows you to dial an intercom or an outside phone number and have the number appear on the display of your Digital Multiline Display Telephone before the call is placed. This procedure ensures that the correct number will be dialed.

PRIS DNIS Incoming Trunk Programming for Multit-Tenant Applications

This is an enhancement to the Multi-Tenant feature allows tenants on an ECS system to share a PRI circuit but have dedicated DNIS numbers and channels assigned.

Prime Line Access

This programming option allows a system extension to immediately access a specific system extension, outside line, outside line group, hunt group, paging zone, or optimized routing upon going off hook.

Privacy/Privacy Release

All calls are private and no one may enter a call unless you release the privacy for that call.

Private Line

This programming option allows a phone to have a dedicated outside line appear on one of its Multipurpose keys. There is no specific operation to enable/or disable private line once it is programmed.

Protected Station

This programming option provides you the ability to prevent any calls from overriding your active call. No operation is required to enable /disable protected station once it is programmed.

Quick Forwarding Using the Hold/Quick Forward Key

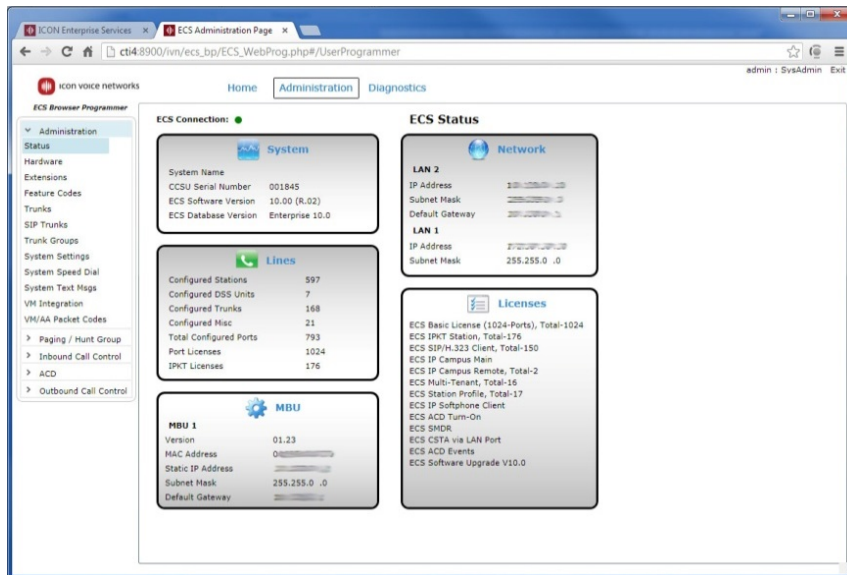
This key provides the same feature as the [HOLD/DND] key except callers are sent to the Fixed Call Forward destination instead of hearing DND tone. When a call is routed to a station programmed with a Fixed Call Forwarding destination that has activated the [HOLD/QUICK FORWARD] key, the call is immediately routed to the Fixed Call Forwarding destination. If no Fixed Call Forwarding destination is programmed, the caller hears a DND tone. Hold/Quick Forward is the default setting for the Hold/DND key on the Iwatsu ICON Series Telephones.

Quick Mode Operation

This programming option enables you to access an outside line or your intercom extension by simply pressing the desired key. This activates the speaker and allows for immediate On-Hook Dialing. If your extension has a Speed Dial number assigned to a Multipurpose key, the ECS will automatically select a line and dial the number.

Remote Programming/Diagnostics

A personal computer at a remote location may be used change the customer database through the internet, WAN connection or a modem. If a modem connection is used, the line used for remote programming may also be used as a regular outgoing line, and manually switched for modem use. If a WAN connection is used, VPN routers are required.



Remote Relay Control

Allows you to activate/control a remote device. For example, a door opener or a monitor camera.

Ring Muting

Allows you to turn the ringer, microphone, and speaker off at your phone. Ring Muting is recommended instead of Do Not Disturb when the Call Coverage feature is installed.

SARA Integration/Alerting System Integration

This feature supports notification alerts from Status Solutions SARA application to appear on a key programmed on an Iwatsu ICON 5810, 5910 and 5930 phones. The key has a dual function to receive and send alerts. In addition to SARA this interface is compatible with other 3rd party alerting systems..

When enabled,

- A new Alert key on Iwatsu ICON-series phones can be lit and unlit when SARA alarms are set and cleared.
- Alert menus on Iwatsu ICON-series phones can show details about current and recent alerts for monitored SARA devices.
- Alert text messages can be sent to DECT phones when SARA alarms are set or cleared.
- When integrating with 3rd party alerting systems (does not apply to SARA) a Virtual Application Port License is required, part number 000365.

SMDR

Station Message Detail Recording (SMDR) allows you to connect an RS232C compatible serial printer to the Iwatsu Enterprise-CS. This printer will show all incoming and outgoing call activity.

An SMDR Event Output License is required for serial or Ethernet port output via the IX-CCU/IX-CCSU.

Or,

An IX-HCIF, IX-SCIF or IX-EDVIF card may also be used for this feature.

Save Number Redial

Allows you to save a number that you dialed when you receive either a busy signal or no answer. The memory for this feature is shared with Memo Dial.

Self-Labeling Display (Iwatsu ICON 5930/5910/5810 Phones Only)

The Iwatsu ICON Series 5930, 5910, and 5810 Telephones are equipped with Self-Labeling keys that support up system features. When a key, that resides on the LCD, is changed on the key pattern of your telephone, the label for that key will change. Changing the label of a Self-Labeling Key can be performed through the telephone or through the Iwatsu Programmer.

Self-Labeling Keys

The Iwatsu ICON Series 5930, 5910, and 5810 phones are equipped with self-labeling keys that support system features. Changing the label of a Self-Labeling Key can be done through the ICON phone or from a web browser using the Station Configurator program. Changing the key label does not change the function of that key. If a key label is changed and that key is changed, the key label will not change to reflect the new key.

Self-Labeling Key Name Change

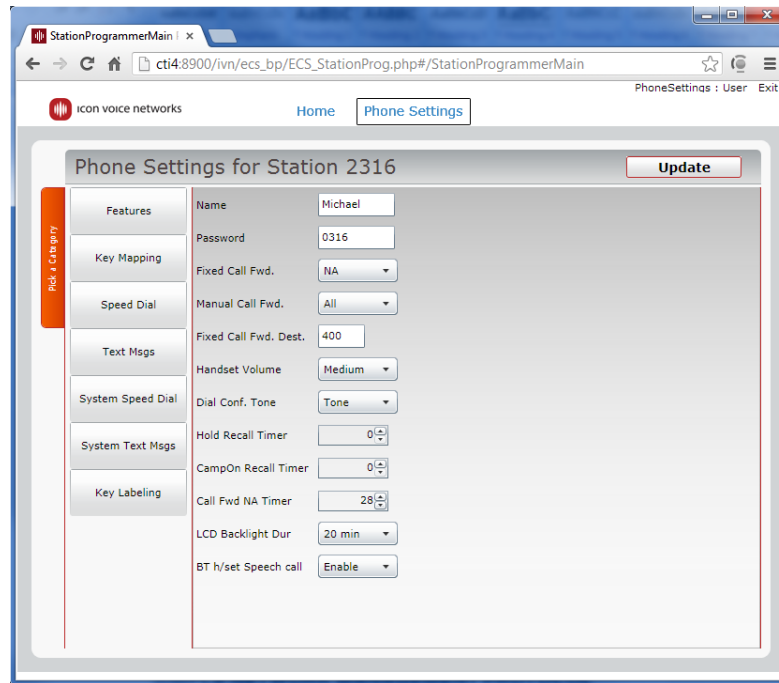
You can also manually change the name of a key on the display. This does not change the function of the key, only how it appears on your display.

Shift Call

Allows you to initiate a new intercom call without having to hang up if the called extension does not answer or if there was a dialing mistake. This differs from Clear Call by allowing you to dial the last digit of an extension number to reach the next extension.

Station Programmer

Modify phones settings from a web browser.



Browser Station Programmer

Simple Network Management Protocol (SNMP)

The Iwatsu Enterprise-CS supports SNMP that allows administrators to view system device information through the Iwatsu Enterprise-CS browser programmer or through a third-party SNMP console. SNMP output includes the following MIB information: IP address of device, MAC address, ARP table, Routes, UDP service ports, and Active TCP connections.

Speech Dialing

Speech Dialing enables a user to voice dial from personal or company contacts by accessing the optional Esnatech Officelinx Automatic Speech Recognition (ASR) software. To voice dial, the user simply presses the Speech key (or dials the automated attendant access code) and says the name of a party that is stored in their contact list. This feature can also be enabled for prime line access when used with an ICON Series 5930/5910/5810 telephone enabled with a Bluetooth headset.

SIP Trunk Call Blocking

Incoming calls on SIP trunks can be blocked if the incoming DNIS does not match one of the DID numbers programmed in the system routing tables. This feature is enabled on a trunk-by-trunk basis.

SIP Trunk Support

Iwatsu ECS supports the direct connection of SIP trunks. Please consult with your Authorized ICON Voice Networks dealer for a list of service providers that Iwatsu ECS interoperates with.

Note: Available features will vary greatly depending upon the SIP trunk provider. Prior to deploying SIP trunks please consult with your ICON Voice Networks Dealer for a thorough analysis, supported SIP trunk providers, and for other conditions and limitations.

Note: Enterprise-CS does not support faxing over SIP trunks. Please consult with your ICON Voice Networks Dealer for other conditions and limitations.

Station Coaching

Station Coaching includes two actions: Monitoring and whisper paging (hereafter called 'whisper monitor'). An Iwatsu ICON phone can whisper monitor another ICON phone after invoking the Monitor feature. The Monitoring station can whisper monitor other stations while on an outside call or an intercom call and press the [*] key to speak to the monitored station without the calling station hearing.

Note: This feature is not transparent when an IP phone is being monitored or when the monitored station is networked using IP Campus.

Station External Ringer Connection⁴⁰

Allows for the connection of an external ringer through an IX-LRSP to provide loud ringing on incoming calls. Once configured, no operation is required to turn on / off.

Station Lockout

You may enter a personalized password to prevent anyone from using your phone when you are not present. The password must be programmed through system programming and may be six digits in length.

Station Profile (Hot Desk)

The Station Profile (Hot Desk) feature allows an ECS user profile to be defined per person allowing them to login to an ICON 5810, 5910 or 5930 phone enabled for Station Profile. When logged in all call routing, call progress, phone status and phone programming changes to reflect the values programmed for that user profile.

System Alarm

Should there be a malfunction with your system, the Iwatsu Enterprise-CS will generate an alarm indication on the Attendant Console and the IX-PWSE Power Supply Alarm LED and Status Indicator in the Gateway Controller.

System Announcements

When the Iwatsu Enterprise-CS is equipped with an automated attendant, messages can be played to callers. Examples include:

- ACD and UCD announcements - "All agents are busy"
- Night Mode announcements - "Our office is closed for the day"

System Clock

The Iwatsu Enterprise-CS is equipped with a real time clock that provides an indication of the current time and duration of both incoming and outgoing calls on the LCD display of Iwatsu telephones. The clock also has a perpetual calendar that eliminates the need to change the date for leap year or adjust the time for daylight savings.

System Speed Dial

Up to 900 frequently dialed numbers may be registered in the system database for abbreviated dialing. The numbers may or may not be restricted to certain extensions.

Text Messaging

The text-messaging feature allows station users to send a 16-character text message to another system extension. There are two types of text messages, system text messages and personal text messages. A text message may be sent as either a busy bypass/no answer text message or as a stored text message. Busy bypass/no answer text messages appear on the recipient's LCD immediately. Stored text messages do not appear on the display, but instead, light the recipient's [TXT MSG] key. Stored text messages are saved in memory until the recipient manually displays them.

A text message may also be sent during whisper page, eliminating the need to interrupt the call in progress.

Up to 90 system text messages and 10 personal text messages are available to each user. System text messages are accessible by all Iwatsu Enterprise-CS station users. Personal busy bypass text messages are programmed by the

⁴⁰ Loud ringer connection is not supported on ICON series phones.

individual station user and may only be accessed at the specific station set.

Using the specially programmed Fixed Test Message key provides one-touch operation to send a pre-programmed text message to multiple stations. Up to 16 stations can be assigned to a text message group and up to 250 groups can be programmed in the ECS database. This feature is available on any Iwatsu key telephone that can be assign a Fixed Text Message key.

Text Web

Iwatsu Text Web allows you program a formatted URL and have that information display on your Iwatsu ICON Series IP Telephones. As an example, Iwatsu Text Web can be programmed to display customer account information or other important company data on the display of the Iwatsu ICON Series IP Telephone (5910/5930). The Text Web feature may also be used to associate a key on the ICON Series IP Telephone with an application on the desktop PC.

Iwatsu Text Web requires Enterprise Services and a Text Web key in the key pattern of your Iwatsu ICON Series IP phone.

Ticker Field Display

The Ticker Field Display provides the ability to scroll a text message up to 512 characters in length across one of two lines on the Iwatsu ICON Series phones. As an example, the ticker can be programmed to scroll important messages or company notification information. Five different Ticker sources (URLs) can be programmed in the ECS database.

The Iwatsu ICON Series 5930, 5910, 5810, and the 5800 Telephones support the Ticker Field Display (TFD). The user can activate and deactivate the TFD from the 5930, 5910, or 5810 Self-Labeling display, but the ticker must be activated and deactivated through the system administration console for the 5800 and 5900.

Time Reminder

Allows you to be reminded that it is a certain time. You are reminded by hearing tones that are generated from the phone's speaker. If your phone has a display the word Reminder will also appear. The time must be entered in military time.

Toll Restriction

The Iwatsu Enterprise-CS provides flexible toll restriction of both area and office codes, as well as the subscriber number. There are eight levels of restriction.

Tone/Voice Calling

The calling mode for intercom calls may be switched between voice and tone signaling. The ECS may be programmed to allow either the calling party or the called party to have control of the signaling mode.

Tone Pulse Dialing

Analog trunks may be programmed for either Touch Tone or Rotary dialing to accommodate your local phone company central office.

Transfer Off-Premise

Transfer Off-Premise allows any user to transfer a call to an outside party by using the TRAN key followed by an outside line access code + outside number.

Transfer to Guest Mailbox

Guest Mailboxes created in the voice mail system can be accessed from system extensions and via transfer. Guest Mailboxes have the same capabilities as system mailboxes; however, they are not associated with a specific station and require no Iwatsu Enterprise-CS hardware (i.e., a dedicated Iwatsu Enterprise-CS station port with a station terminal).

Transfer to Speed Dial

Iwatsu phones can transfer a call to a system or personal speed dial number programmed to a fixed speed dial key by pressing TRANSFER plus the fixed Speed Dial Key. Additionally, pressing TRANSFER + SPEED + bin number will achieve the same result. Both supervised and blind transfer are supported.

Trunk Interfaces

The following outside line types are supported by the Iwatsu Enterprise-CS:

- Loop Start trunks
- Ground Start trunks
- Caller ID trunks
- OPS trunks
- ANI trunks
- DNIS trunks
- DID trunks
- E&M Tie trunks (T1)
- ISDN PRI lines
- SIP Trunks

Unanswered Incoming Outside Line Warning Tone

After a programmable time, incoming calls will ring with a different tone to warn you that your call is now in the delayed ringing mode at another extension. No operation is required at the station to access this feature.

Uniform Call Distribution (UCD)

Allows telephone lines to be directed to a group of phones. If all phones are busy, the caller may hear a recorded message when your system is equipped with an IX-MSGU card or automated attendant. Calls to the UCD group may search for an idle extension in either a Terminal or Distributed Hunting pattern. In Terminal Hunting the incoming calls always start hunting from the first telephone in the group. In Distributed Hunting the incoming calls start hunting from the telephone following the last called telephone. In both cases, calls will hunt to the next telephone if a telephone does not answer in a predefined period of time, is busy, or in the Call Forward or Do Not Disturb mode. The Iwatsu Enterprise-CS also has the ability to send unanswered calls to an overflow or secondary answering position after a predefined period of time. This second answering position may be another UCD group, hunt group, voice mailbox, extension, or attendant. Additionally, the ECS can be programmed to disconnect the call when the UCD overflow timer expires.

Universal Night Answer

Allows you to answer calls that have been switched to ring at the Night Mode location.

User Options (Station Programming)

The user programming options listed below are accessible from the 5930, 5910, and 5810 setup menu. Access to these options requires the entry of the station password programmed in the ECS database.

Station User ID – Change the station ID. Up to eight characters supported.

Station Password – Change the station password. Up to four digits.

Dial Confirmation Tone – Turn dial confirmation tone on or off.

Handset Volume Control – Program the default volume setting that the KT will always return to after use. Options are Use Last, Low, Medium, and High.

Hold Recall Timer – Change the value of the Hold Recall Timer between 0 (off) and 255 seconds.

Camp-On Recall Timer – Change the value of the Camp-On Recall Timer between 0 (off) and 255 seconds.

Station Ring Tone – Choose one of eight tones as the default station ring tone.

Key Assignment – Change the value of a Self-Labeling key or multi-purpose key.

Note: The User Key Assignment database setting must be set to Allow (default = Deny) to allow station users to change Key Assignments.

LCD Backlight Duration – Change the amount of time the LCD backlight will remain illuminated to a time between 30 seconds (default) and 120 minutes.

Caller ID on Hold – Enable or Disable Caller ID Display on Hold for CO Line, Float, Individual Park, and Group Park keys programmed on the self-labeling display.

Voice Mail/Automated Attendant Integration

The Iwatsu Enterprise-CS has been designed to provide full integration with voice mail and automated attendant machines. The Iwatsu Enterprise-CS will allow you to transfer, forward and record calls to a mailbox and provide you with a unique voice mail message waiting indication. The Iwatsu Enterprise-CS will also allow calls transferred from the automated attendant to be directed to messages other than the initial greeting if the desired party does not answer.

TOL-IVM Voice Messaging System

The TOL-IVM Voice Messaging system is an embedded voice mail/automated attendant call processing system for the Iwatsu Enterprise-CS IP-PBX platform. This system, running on the APPSRV-1 card, streamlines call processing and voice messaging for customers and employees. With TOL-IVM calls to your business are answered with greetings specific to the number dialed, person or department reached or caller ID of the outside caller. You employees can manage their voice messages from their phone or computer. Optional unified communications and mobility options are also available extending the reach of the TOL-IVM out to your cell phone.

The table below provides a high-level overview of the TOL-IVM system and supported features.

TOL-IVM Configuration Overview	
Platform	ECS APPSRV-1 Card
Integration	SIP Ports
Number of VM/AA Ports in Base Configuration	4 ports
Maximum Number of Ports Supported	16 ports
Number of Standard Mailboxes & AA Menus	50
Maximum Number of Mailboxes & AA Menus	400
Number of Standard UC Clients	0
Maximum Number of UC Clients	25
Number of Standard Fax Server Ports	1
Maximum Number of Fax Server Ports	2
Number of Companies	1
Number of Speech Recognition Channels	Optional Upgrade
Number of Text to Speech Channels	Not Supported on APPSRV-1
System Features	
Administrator	Standard
Automated Attendant	Standard
Backup and Restore	Optional external hard drive or storage required
Caller ID Routing	Standard
Company Dial-by-Name Directory	Standard
Company Profile	Standard
Custom System Prompts	Standard
Distribution List	Standard
DNIS Routing	Standard
Fax Detection	Standard
Fax Server	One Port Standard
Feature Groups	Standard
Flexible Mailbox Numbering	Standard

Flexible Greetings based on number dialed, department or person reached	Standard
Guest Mailbox	Standard
LDAP Synchronization	Standard
Login: Remote and Local.	Standard
Logs	Standard
Message Lamp	Standard
Multiple Languages (Optional)	Upgrade
Operator	Standard
Operator Schedule by Language	Upgrade
Reports	Standard
SMTP Relay (Forward Voice Message to Email)	Standard
Supervisor Menu	Standard
User Settings Management	Standard
Mailbox User Features	
Automatic Message Forwarding	Standard
Busy / Hold Option for Outside Callers	Standard
Call Queuing	Standard
Call Record	Standard
Call Screening	Standard
Certify Message	Standard
Change Location	Upgrade
Custom Telephone User Interface (TUI)	Standard
Custom Voice Menu	Standard
Customized Greeting	Standard
Distribution List	Standard
Fax (Inbound)	Standard
Fax (Outbound)	Upgrade
Forward a Message	Standard
Future Message Delivery	Standard
Greeting Management	Standard
Listen to Email Over the Phone	Upgrade
Listen To Messages from Web Browser	Standard
Mailbox Password	Standard
Mailbox Tutorial	Standard
Record Conversation Warning	Standard
Record Greeting Over Phone	Standard
Remote Mailbox Access	Standard
Reply to Message	Standard
Rerecord Message	Standard
Return Call	Standard
Save Message	Standard
Send a Message	Standard
Time and Date Stamp	Standard
Urgent Message	Standard
Voice Message Folders	Standard
Voice Message Management	Standard
Wake Up Call	Standard
Advanced Mobility (UC) Client Features	
Availability	Mobility Client Upgrade
Call History	Mobility Client Upgrade
Call Manager	Mobility Client Upgrade
Call Manager - Answer	Mobility Client Upgrade
Call Manager - Answer and Record	Mobility Client Upgrade

Call Manager - Dial	Mobility Client Upgrade
Call Manager - Hold	Mobility Client Upgrade
Presence	Mobility Client Upgrade
Call Manager - Retrieve a Call from VM	Mobility Client Upgrade
Call Manager - Take Message	Mobility Client Upgrade
Call Manager - Transfer	Mobility Client Upgrade
Caller ID Screen Pop	Mobility Client Upgrade
Change Location	Mobility Client Upgrade
Distribution List	Mobility Client Upgrade
Find Me / Follow Me	Mobility Client Upgrade
LanTalk	Mobility Client Upgrade
Location Management	Mobility Client Upgrade
Location Management - Location Greeting	Mobility Client Upgrade
Location Management - My Locations Calendar	Mobility Client Upgrade
Location Management - Set Current Location	Mobility Client Upgrade
Notification	Mobility Client Upgrade
Notification - Sound	Mobility Client Upgrade
Notification - Users	Mobility Client Upgrade
Outdial	Mobility Client Upgrade
Outlook Toolbar	Mobility Client Upgrade
Record All Calls	Mobility Client Upgrade
Review Current Availability and Location	Mobility Client Upgrade
Smart Tags	Mobility Client Upgrade
Send Fax Message	Mobility Client Upgrade
Synchronized Messaging	Mobility Client Upgrade
UC Mobile	Mobility Client Upgrade
UC Mobile - Access Workgroups	Mobility Client Upgrade
UC Mobile - Android, Blackberry, iPhone, Windows	Mobility Client Upgrade
UC Mobile - Call Log	Mobility Client Upgrade
UC Mobile - Dialer	Mobility Client Upgrade
UC Mobile - Directory	Mobility Client Upgrade
UC Mobile - LanTalk	Mobility Client Upgrade
UC Mobile - Set Location	Mobility Client Upgrade
UC Mobile - Workgroups	Mobility Client Upgrade

Esnatech Officelinx Unified Communications System

Esnatech Officelinx provides all-in-one voice mail, automated attendant and unified communications. It includes two different levels of features and capacities, and flexibly supports 4 to 144 ports. By integrating Esnatech Officelinx with an ECS, end users can be more productive with just some of the following advantages:

- Access to all emails, voice mails, and faxes from any client with a web, LAN, or WAN connection.
- Listen to emails over the phone.
- Listen to, move, delete and forward voice mails and view faxes from any email client or web connection.
- Send instant messages to any colleague logged into Esnatech Officelinx or even remote workers.
- View the present status of any colleague.
- Speech enabled automated attendant for easy access to corporate directories.
- Dial from email client or call log.

Note: Esnatech Officelinx requires an IX-MBU card to be installed in the ECS system and ECS system software version 8.0 or higher.

Esnatech Officelinx SBE

Advanced unified messaging, voice mail and automated attendant system. Esnatech Officelinx SBE allows access to all voice, fax, and email messages from a single client. Esnatech Officelinx SBE grows to a maximum of 16

ports and can be upgraded to Esnatech Officelinx Elite.

- Esnatech Officelinx SBE software.
- One SIP soft fax port provides fax mail (inbound fax receipt) for all users. The soft fax port also supports outbound fax transmittal provided that the user has either a UC Client or fax client license.
- 25 Unified Communications (UC/VM) Client licenses with full synchronization of all message stores. Email over the phone. Expandable to 300⁴¹ UC Clients.
- 75 Voice mailbox only licenses, expandable to a combined total of 1,000 voice mailbox licenses and UC/VM Client licenses.
- IMAP TSE for single message store feature for voice mails, faxes, and emails. Provides full integration of all messages between the email server and Officelinx server. All messages that are deleted or marked as read from one server are synchronized and deleted on the other.
- Groupware services for IMAP, POP3, and SMTP email server integration.
- Esnatech Officelinx CSTA License.
- Maximum port configuration of Esnatech Officelinx SBE is 20 ports⁴².
- Optional 2-Ports Realspeak Text To Speech (TTS) for email over the phone.
- Optional 2-Port, 500 Name Speech-Linx license for name recognition automated attendant function

Esnatech Officelinx Elite (Enterprise)

This advanced unified communications solution provides access from any supported client device with 100% synchronization between all message stores. Esnatech Officelinx Elite (Enterprise) grows to a maximum of 144 ports.

- Esnatech Officelinx Elite (Enterprise) software.
- 2-Port, 500 Name Speech-Linx license for name recognition automated attendant function.
- 2-Ports Realspeak Text-to-Speech (TTS) for email over the phone.
- One SIP soft fax port provides fax mail (inbound fax receipt) for all users. The soft fax port also supports outbound fax transmittal provided that the user has either a UC Client or fax client license.
- 50 Unified Communications (UC) Client licenses with full synchronization of all message stores. Email over the phone.
- IMAP TSE for single message store feature for voice mails, faxes, and emails. Provides full integration of all messages between the email server and Officelinx server. All messages that are deleted or marked as read from one server are synchronized and deleted on the other.

Groupware services for IMAP, POP3, and SMTP email server integration.

Esnatech Officelinx CSTA License.

Whisper Page

The Whisper Page feature allows ECS station users to communicate with busy extensions without requiring the IX-BPAD Busy Bypass Unit. This feature is available from any ECS digital key telephone, SLT, or Attendant station. When a busy station is called using the Whisper Page feature, the busy station will hear the voice announcement via the handset receiver. Neither the whisper page, nor the busy station's response is audible to the outside calling party.

You may also use the Text Message feature to respond to a Whisper Page.

Whisper Monitor

Station Coaching consists of two parts: Call Monitoring and Whisper Monitor. See **Station Coaching (Pg. 47)** for additional information on Call Monitoring, Whisper Monitoring or Station Coaching.

Windows Programmer

The Iwatsu Enterprise-CS utilizes the Iwatsu Programmer for all system programming. The minimum PC operating requirements are:

Windows® 7, Windows® Vista, Windows® XP (Standard or Professional) operating system with Service Pack 2, or Windows® 2003 Server

⁴¹ Maximum capacity may be less when installed on IX-APPSRV-1 card.

⁴² Maximum of 16 ports when installed on the IX-APPSRV-1 card.

700 MHz Processor
100 MB free HD space
256 MB RAM
Microsoft .NET Framework 3.5.

Section 4 –

Attendant Position Overview

Up to 32 ECS extensions may be designated as attendant positions. An attendant position typically consists of an ICON 5930, 5910 or 5810 phone with one or more ICON 59DS units or PC Attendant or Virtual DSS console. In addition to system features ECS provides the Attendant position features listed in this section.

Iwatsu ICON Series 59DS

The Iwatsu ICON Series DSS Unit (59DS) was designed for use with the Iwatsu ICON Series IP and Digital telephones (5930, 5910, and 5810 only). The 59DS is equipped with a 15-line, 24-character backlit LCD display, and 30 Self-Labeling keys that support up to 60 features. One 5930, 5910, or 5810 supports a maximum of two 59DS units.

The 59DS includes a three position integrated pedestal with a built-in wall-mount option that simplifies installation. The wall mount option requires the IX-59WMS-1 Wall Spacer. The 59DS supports Power over Ethernet or local power when the optional IX-59AC (PN 505099) is installed.



Iwatsu ICON Series 59DS

Note: Only the Iwatsu ICON Series 5930, 5910, and 5810 telephones are compatible with the Iwatsu ICON Series 59DS unit.

Attendant Automatic Hold

Allows you to place your current call on Hold automatically by pressing a key representing a new call to be answered.

Attendant Override

Allows you to notify an extension user that is in Do Not Disturb that you wish to speak with them. The extension user is notified by tones through the speaker of a Digital Telephone and the ringing of a Single Line Telephone.

Automatic Answer Mode

Allows you to direct outside calls to be answered by a prerecorded message. There are two answering modes for this feature. For example, this feature can be used to inform outside callers that the office is closed for the day. This feature requires the use of the Message Card. A programming option may be enabled to allow the ECS to automatically switch to the Automatic Answer Mode at a certain time. You must manually switch the system to the normal mode.

Abandoned / All Call

Allows you to delete all stored call records from system memory.

Call Intercept

The Attendant Intercept feature allows an outside call to be directed to ring at an attendant position if the call goes unanswered, if transferred to a non-existent extension, or if a call reaches an extension in the DND (Do Not Disturb) mode. If a call is transferred to a non-existent extension the **Recall** key LED will light on the attendant station. ECS software version 8.0 and higher extends the Attendant Intercept operation to incoming PRI/BRI calls as well as, incoming T1 ANI/DNIS calls.

Call Swap

Allows you to alternate between the outside calling party (the source) and the requested extension user (the destination) during the process of transferring a call without having to use the Hold key **HOLD/DND**.

The Attendant Position may be programmed to have either a Swap key or Source and Destination keys, but not both.

CCSU Serial Number / ECS Software Version Display

The IX-CCSU Serial Number and ECS Software Version Display feature allows a technician or user to display the last six digits of the IX-CCSU Serial Number and the ECS Software Version from any attendant position.

Only Iwatsu attendant stations with a two-line display can display this information. Iwatsu Platinum Series 12i/d telephones can only display the IX-CCSU serial number (top system line) and not the ECS software version on the second line of the display.

Clock Set/Adjustment

Allows you to change the time for the system clock.

If the seconds shown on the DSS are less than 30, the minutes digit will remain the same. If the seconds shown on the DSS are greater than 30, the minutes digit will advance one digit.

Direct Station Selection

Direct Station Selection allows you to have one-touch access to call extensions

DSS Screen Control

The 59DS has two screens. Use the page navigation arrows at the bottom of the display to navigate between screens 1 and 2. On older model DSS units press the **SCRN 1** or **SCRN 2** to alternate between screens.



59DS Navigation Keys

Flexible Night Answer

Allows you to program individual outside lines or line groups to ring at the Night Mode or Day Mode location independently of the mode the system is currently in.

Incoming Call Termination

Outside lines may be programmed to appear individually on Multi-purpose keys or they may be grouped together to appear on one or several Multi-purpose keys.

Message Waiting Control

Allows you to inform an extension user that there is a message waiting for them by lighting a Message Waiting Lamp on their phone. This operation allows you to send a message without having the desired extension ring.

Multiple Ringing Mode

The Multiple Ringing mode feature expands the current Day and Night Ringing modes by adding a Day-2 and Day-3 mode. This feature also adds the option to choose between System Ringing and Group Ringing based on incoming trunk groups or DNIS/DID number. Activation and control of the Multiple Ringing mode is available from Iwatsu ICON Series 5930, 5910, and 5810 telephones.

Night Mode

Allows you to change the ringing termination point for outside lines. This alternate point might be a loud bell, a phone or a group of phones. A programming option may be enabled to allow the ECS to automatically switch to the Night Mode at a certain time; however, you must manually switch the system back to the normal mode.

Operator Priority

The system operator has the ability to override any ringing or voice announce intercom call or paging call. This occurs when calls are made simultaneously, or another party other than the operator makes the call first.

Overflow Transfer

Allows you to limit the number of calls waiting to be answered at the Attendant Position. Once the maximum number of calls is reached, all additional calls will automatically forward to another location.

Ring Muting

Allows you to turn the ringer off at the Attendant Position.

Serial Calling

Allows you to have outside calls return to you after the extension the call was transferred to hangs up. This is very useful when an outside party wants to talk to more than one internal party.

Station Call Forward/Do Not Disturb Release

Allows you to cancel Call Forward and Do Not Disturb settings on other extensions in the system.

Station Class Restriction Change

The Iwatsu Enterprise-CS may be programmed to allow different outside calling restrictions to be set based on Day and Night Mode system operation. Station Class Restriction Change allows you to instruct the ECS that an extension or group of extensions are to always operate in either the Day or Night Mode restriction pattern during Day Mode operation.

Station Forced Release

Allows you to remove an extension from service.

Station Lock

Allows you to prevent an extension from having access to outside lines.

System Announcement Recording

If your Iwatsu Enterprise-CS is equipped with an IX-CMSG-1 card you may make customized recordings to be played to outside callers. The total recording time is 330 seconds with the IX-CMSG-1 card. Message number 01 is reserved for the System Announcement recording. System announcements may also be recorded through the voicemail/automated attendant system.

System Speed Dial Registration

Iwatsu ECS General Description

You have the ability to register (program) the 900 System Speed Dial numbers. The numbers may be 32 digits in length and may include the insertion of a pause.

System Text Message Registration

If your telephone or DSS is programmed with a Text Message key, you have the ability to register (program) the 90 System Text Messages. The messages may be 16 characters in length.

Through Dialing

Allows you to make an outside call for an extension that is toll restricted.

Trunk Access Control

Allows you to change the outside lines or line groups that extensions can access.

Trunk Forced Release

Allows you to remove an outside line or outside line group from service.

Section 5 – Real IP Apps

Real IP Apps is a server-based application suite that enables desktop call control, presence, screen pops and call accounting applications on the Iwatsu ECS. Real IP Apps require ICON Enterprise Services and include applications such as QueVue™, Call Director, Virtual DSS, PC Attendant Console, and AccuCall reporting.

ICON AccuCall

ICON AccuCall is a browser-based application allowing you to monitor usage, view and generate reports from the Internet. Track usage by caller ID, user, department, dialed number or incoming line. View, archive and even email as needed.

Hourly Detail Reports >> Average Call Time Report

Start: 2012-04-01 End: 2013-07-23

Station: All Stations

Tenant: All Tenants Dept.: All Depts.

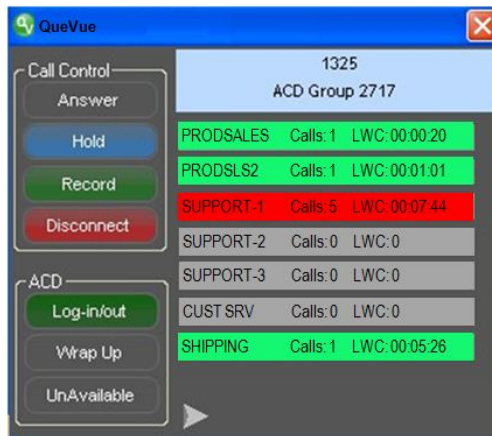
Hour	Incoming Calls				Incoming Unanswered	
	Calls	Duration	Avg. Call Time	Avg. Answer Time	Calls	Duration
00:00	5	00:00:14	00:00:03	00:00:00	5	00:00:14
01:00	12	00:02:46	00:00:14	00:00:01	11	00:02:42
02:00	5	00:09:03	00:01:49	00:00:04	3	00:01:41
03:00	5	00:17:59	00:03:36	00:00:04	3	00:00:24
04:00	0	00:00:00	00:00:00	00:00:00	0	00:00:00
05:00	3	00:00:23	00:00:08	00:00:00	2	00:00:20
06:00	16	01:37:13	00:06:05	00:00:06	11	00:04:19
07:00	75	01:53:10	00:01:31	00:00:18	46	00:15:38
08:00	552	71:44:31	00:07:48	00:00:35	210	01:22:03
09:00	2611	363:39:38	00:08:22	00:02:21	423	04:02:06
10:00	2440	329:08:53	00:08:06	00:02:07	467	05:13:05
11:00	2116	209:54:04	00:05:58	00:02:31	436	04:45:42
12:00	1958	220:23:37	00:06:46	00:02:47	492	07:17:35
13:00	2126	254:55:38	00:07:12	00:01:59	499	04:59:45
14:00	2483	295:38:10	00:07:09	00:03:40	485	04:15:37
15:00	2036	199:53:43	00:05:54	00:01:51	411	04:34:22
16:00	1335	120:50:34	00:05:26	00:01:09	284	02:26:55
17:00	355	12:56:43	00:02:12	00:00:12	144	00:32:05
18:00	133	06:02:14	00:02:44	00:00:04	78	00:17:26

ICON AccuCall

ICON QueVue™

ICON QueVue is a software application that works in unison with the Iwatsu station and simplifies an ACD agent's ability to login and out of multiple ACD groups while viewing up to eight ACD queues simultaneously. ICON QueVue consists of the ICON QueVue™ Administrator and the ICON QueVue Agent applications.

Users must have both a PC and a key telephone on their desks.



ICON QueVue

The ICON QueVue features include:

User Features:

- Login to multiple ACD Groups with one login.
- View up to 16 ACD Groups.
- Place calls on hold
- Record Calls
- Answer / disconnect calls
- ACD Control for Login / Logout, Wrap-up, and Not Available. Login also allows the user to select preferred ACD queues that are logged into most frequently.

ACD Group Information Display:

- Number of calls in queue
- Overflow indication
- Number of agents logged in to each group.
- Priority of agents logged into group

ICON Virtual DSS

The Virtual DSS is a highly customizable application that provides easy access to other Iwatsu telephones using the PC. It was designed to greatly reduce overall call handling time and provide visual indication of the current status of each Iwatsu telephone, all while maximizing the user's desk space.



ICON Virtual DSS

The Virtual DSS was intended to improve the productivity of receptionists, administrative assistants and other employees with heavy call volume.

Single click operation to:

- Call another station
- Retrieve an incoming call from a call covered station
- Transfer a call to another station
- Transfer a call to a voicemail box
- Park a call at another station
- Park a call on a group park orbit
- Status indication of:
 - Incoming calls to a station
 - Station on call
 - Stations in Do Not Disturb (DND)
 - Calls parked at a station
 - New voice message at a station

Drag and Drop – The Virtual DSS Console is easily customized. Users can quickly change the layout by dragging the desired name or extension from the Iwatsu Gateway Solutions Company Phonebook, and dropping it onto the desired Virtual DSS key. Key changes are instant, with no separate databases to edit or upload.

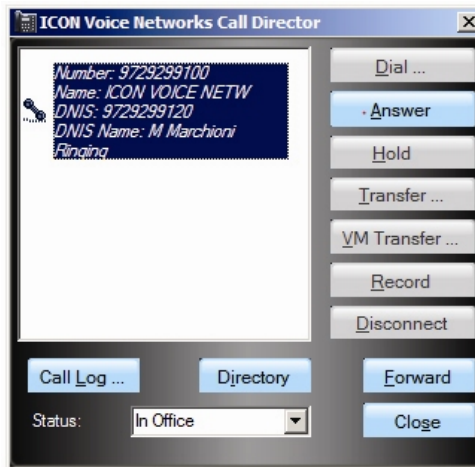
Integrated Tutorial Movie - The Virtual DSS Console includes an integrated tutorial movie that walks users through all the features and basic configuration options they are likely to use.

Console Integration - The Virtual DSS Console integrates with all Iwatsu stations including the Iwatsu ICON Series phones.

Remote Users - Remote workers have full access to the Virtual DSS features. The only requirement is a VPN connection to access the Iwatsu Enterprise Gateway.

Call Director

The Call Director is a desktop call control application for Iwatsu ICON phone users. The Call Director is a simple, intuitive application that installs on the user's PC and provides visual indication of incoming and outgoing calls.



Call Director

Incoming Call Screen Pop -includes caller's name and number.

Call Control -The Call Director provides the following call control features:

- Make a call
- Place a call on hold
- Disconnect a call
- Directory dial
- Answer a call
- Record a call
- Transfer a call
- Transfer to Voicemail

User Status - The Call Director includes a User Status feature that integrates with the company phonebook, allowing coworkers to view user status. Status settings include In Office, Away on Business, Extended Absence, At Lunch, Meeting, On Vacation and Temporary Location.

Call Forwarding– The Call Director may be used to forward all incoming calls to another extension or an external number such as a cell phone. This setting also integrates with the PC Attendant Phonebook and allows others to view your forwarded status.

Directory – The Call Director has a directory feature that provides two views, the Company Phonebook which lists all ECS extensions, and personal contacts imported directly from Microsoft Outlook. The Company Phonebook is a shared resource with other ReallIP Apps such as the PC Attendant Console and Virtual DSS. The Company Phonebook is user-organized by extension number, first name, last name or department. More importantly, Call Director users simply select the person the wish to call and click the dial button.

PC Attendant Console

The PC Attendant Console is a software application that works in unison with the Iwatsu station, and facilitates users placing, transferring, and holding calls through the PC. While anyone can use the application, the PC Attendant is primarily designed for attendant operators and department assistants.



PC Attendant Console

The PC Attendant Console features include:

- Call Transfer.
- Blind Transfer.
- Transfer to Voicemail.
- Attendant Call Park Orbit and Page.
- Direct Station Selection with Status Indication.
- Company Phonebook with One-Touch Dialing and Status Indication.
- Drag and Drop Call Transfer.
- ‘Notes’ column in phonebook allows attendants to add notes about specific extensions such as “Out to lunch,” “In Meeting,” or “On Vacation.”
- Color-coded departmental listings and sort by department feature.
- Call Log provides information about all calls that ring the extension.
- Four call coverage buttons, independent of the telephone.
- Recall information includes caller ID name and number and recalling extension ID.
- Status column in phonebook includes a ‘PARK’ indication when a call is parked at an extension.

TAPI Driver

The ICON TAPI Driver works in conjunction with Iwatsu Enterprise Services to enable the following features on TAPI-compliant client applications:

- Incoming call screen pop of TAPI-compliant application
- Make an outbound call via an Iwatsu telephone from a Windows application such as Microsoft Outlook.
- Place a call on hold / retrieve a call from hold
- Transfer a call (supervised transfer)
- Forward all calls

E911 Email Notification

Use ICON Enterprise Services to receive an email notification when an E911 call is made or attempted on a phone connected to the ECS

ICON Enterprise Services

ICON Enterprise Services 5 (ES5) is a middleware stack which runs on a Windows Operating System and acts as proxies for various data streams within the Iwatsu ECS and other PBX systems. Enterprise Services allows multiple client applications to receive CSTA events, ACD events and other data of interest. It also receives and transmits data requests sent to the ECS from various applications. ICON Enterprise Services is required for Real IP Apps.

ICON Enterprise Services Requirements for Real IP Apps

Iwatsu ECS System

- Iwatsu ECS Version 10.0 or higher
- Other license requirements will vary based on application

Enterprise Services Host Machine

- Microsoft Windows XP, or later with latest released service packs on all platforms. ICON Enterprise Services has not been tested in a virtual environment. 64-bit supported on Windows Server 2008 and Windows 7
- Internet Explorer 8 or higher, current version Google Chrome and Safari
- A minimum of 6 GB of disk space
- .NET Framework 4.0 (*Full Version - Not the 'Client Profile' version*)
- Must be installed and run from a SysAdmin privileged account
- Application Client Licenses for Call Director, Virtual DSS, PC Attendant Console, QueVue™, AccuCall-Web and TAPI Driver.

Client PC

- The following are the computer system software and hardware requirements for running Iwatsu Call Director, Iwatsu Virtual DSS, Iwatsu PC Attendant Console, TAPI Client and Iwatsu QueVue™ clients:
- Microsoft Windows® XP with Service Pack 2, Windows® Vista (32-bit only), or Windows® 7 (64-bit not supported with TAPI Driver).
- Minimum 512 MB of RAM.

Section 6 –

ECS Automatic Call Distribution (ACD)

ECS ACD is a combination of specially designed hardware and software that is compatible with any ECS telephone system to provide Automatic Call Distribution capability. ACD can be of benefit to any organization because it distributes calls equally among employees and ensures that callers are handled in the most efficient manner.

ECS ACD is designed to provide the most flexible, integrated ACD product offering. Unique to ECS ACD is extension priority assignment. This priority enhancement allows calls transferred to an ACD Group from an ECS extension or an automated attendant/voice mail machine to be answered prior to other calls presented to the ACD Group.

TASKE[®] Contact, a call center management and reporting software solution, may be added to the ECS ACD package. TASKE[®] Contact allows ACD Supervisors to view contact center activity in real time. In addition, TASKE[®] Contact offers the ability to generate over 150 detailed reports on call details, abandoned calls, extensions, queue groups and much more. ECS ACD Supervisors have access to this information from their network PC or remotely via the Internet.

ACD Agents

The ECS ACD will allow 1024 ACD Agents to be programmed with a maximum of 512 active at any given time.

ACD Agent Keys

The ECS ACD offers special station feature keys for ACD operation. Certain features are only active when an Agent logs-in. Other feature keys operate regardless of login status.

FEATURE NAME	FUNCTION
ACD nnn / ACD All	ACD Call status (n=1-250/255)*
Queue nnn	Queue status for group (n=1-250). Also used to transfer call to ACD group.
Qualify nnn	Qualify Code - Preset Entry (n=000-999)
Qualify	Qualify Code - Manual Entry
Agent Login	Log-in/Log-out status
Unavailable	Not Available status
Wrap-Up	Wrap-Up status
Help	Call Supervisor for help
Emergency	Call Supervisor for help / record conversation
ACD Answer	Answer ACD and non-ACD calls
ACD Transfer	One touch transfer of a call to an ACD group

* nnn=1-250 for individual ACD Groups and 255 for all ACD Groups. ICON 5810, 5910 and 5930 phones will display the group name.

ECS system extensions have the following feature restrictions when an Agent is logged-in or is presented with an ACD Call.

FEATURE NAME	RESTRICTION
Absence Message	ACD Calls will ring
Direct Call Pick-up	not valid for ACD Calls
Remote Call Forward	not valid for ACD Calls
Call Coverage	not valid for ACD Calls
Call Forward	not valid for ACD Calls
Call Park Pick-up at remote extension	not valid for ACD Calls
Call Pick-up - Direct, External, Internal	not valid for ACD Calls
Voice/Tone Call	Tone valid for ACD Calls
Hold/Do Not Disturb	DND not valid for ACD Calls Exclusive Hold for ACD Calls

When an ACD Agent is logged-in, all calls to the Agent's telephone will ring; Off-Hook Call Announce and Hands-Free Answer Back are disabled. Agents may not use a Busy Bypass Module (IX-BPCU), and Off-Hook Signaling must be programmed for denied.

ACD Agent Log-In / Log-Out

To begin receiving ACD calls, ECS ACD Agents must login to the ECS ACD group. There are two methods for logging into an ECS ACD group: Multi-Group Login and Dual Group Login. Any ECS IP Telephone or Digital Key Telephone equipped with an Agent Login key can use either method to login to an ECS ACD group.

ECS ACD Agents can use Multi-Group Login to log into one or multiple ACD Groups. The login procedure is done on a group-by-group basis.

With Dual-Group login, two ECS ACD Groups are preprogrammed and the ECS ACD Agent logs into both groups simultaneously.

ACD Agent Log-In Status

You can see your login status for up to two groups from the station LCD. When logged into multiple groups you will only see the status of the two groups with the lowest group numbers. Incoming ACD Calls are indicated on either the ACDn key(s) (Group Name) or the ACD All key on the Agent's telephone.

ACD Calls

The following type of calls may be directed to an ACD Group:

- CO line calls programmed to a specified ACD Group.
- E&M Tie Line calls when the calling party dials an ACD Group Access Number.
- DID calls when the DID conversion number is programmed to be an ACD Group Access Number.
- DISA calls when the calling party dials an ACD Group Access Number.
- Unscreened transfer calls from an ECS system extension or another ACD Agent in the system when the transferring party dials an ACD Group Access Number.
- Extension calls that dial an ACD Group Access Number.
- T1 span calls programmed as CO, E&M or DID lines.
- IP Networking calls configured as CO, E&M or DID lines.
- ACD Calls are subject to the following conditions:
 - ACD calls are not subject to Hold Recall.
 - When an ACD Call is transferred from an Agent in an ACD Group to an ECS system extension or another Agent, the call is no longer treated as an ACD Call. When an ACD Call is transferred from an Agent in an ACD Group to another ACD Group, the call is treated as a new ACD Call for the second ACD Group.
 - Calls may not Call Forward to an ACD Group.
 - When an Agent performs a Trunk-to-Trunk Conference call, the ACD Call is canceled.
 - Up to sixty Trunk Groups may be programmed for ACD Calls.

The order in which an ACD Agent's telephone rings is as follows:

- 1st..... ACD Supervisor call
- 2nd Incoming ACD Call
- 3rd ECS system extension Hold Recall
- 4th Incoming ECS system extension call

ACD Call Record While Monitoring

This feature enables an ACD agent or ACD supervisor to record an ACD call that he/she is monitoring.

ACD Call Routing

Calls to an ACD Group are distributed on the longest idle agent basis. The longest idle agent method of call distribution sends the next ACD Call to the ACD Agent that has not handled an ACD Call for the longest period of time and has the highest Agent Answering Priority among the ACD Agents currently logged-in the ACD Group. When a new ACD Agent logs into an ACD group, the Agent becomes the ACD Agent with the least idle ACD Call handling time. When all ACD Agents in the ACD Group are busy, ACD Calls are placed in queue and follow the programmed Call Sequence Table for the ACD Group. When an ACD Agent becomes free, the call routes to the first available Agent.

ACD Group

An ACD Group is the destination for ACD Calls to be answered and is comprised of ACD Agents (up to 1024 with 512 active at any given time), ACD Supervisors, Call Sequence Table(s), Priority Change Timer and ACD Group Expansion Timer. The ECS ACD will allow a maximum of 250 ACD Groups and each ACD Group may be assigned an eight character alphanumeric name. In addition, each ACD Group may be assigned one of the four ECS system ring patterns.

ACD Group Expansion

ACD Group Expansion provides an ACD Call in Queue a greater chance of being answered after a specified period of time, 0-999 seconds. This is accomplished by adding a second ACD Group to assist in answering calls. When ACD Group Expansion occurs, calls in queue that exceeded the specified period of time will search for an idle Agent in both groups. Further expansion is possible and is based on the ACD Group Expansion Timer of the additional group(s). After expansion, the ACD Call still follows the Call Sequence Table of the original ACD Group.

ACD Group Night

The supervisor has the ability to switch the call sequence Table between the day and night mode for each group that they are responsible for. The mode change can be programmed to take place automatically, at a defined time of day or can be manually activated by the supervisor.

ACD Supervisor Keys

ECS ACD offers special station feature keys for ACD operation. These features are only active when programmed on a supervisor's telephone. The list below highlights these additional features.

FEATURE NAME	FUNCTION
ACD nnn / ACD All	ACD Call status (n=1-250/255)*
Queue nnn	Queue status for group (n=1-250)
Night n	ACD Group Night status (n=1-250)
Super Login	Supervisor Log-in/Log-out status
Agent Login	Supervisor as Agent Log-in/Log-out status
Sequence nnn / Sequence Chg	Call Sequence Table Change (n=1-250) / 255
A.DATA	ACD Supervisor Data Programming
ACD Msg Record	ACD Message Recording
Monitor n	Agent Call Monitoring by Agent ID (n=Agent number)

* n=1-250 for individual ACD Groups and 255 for all ACD Groups

ACD Supervisor Log-In

ECS ACD supervisor log-in allows ACD supervisors to login to an ECS ACD group with supervisor status. ECS ACD supervisors can login to an ACD group using the single group login feature. Additionally, ECS ACD supervisors can login to all ACD groups using the All Group Login feature. When logged in supervisors will receive help calls and emergency help calls from agents.

ACD Supervisor Programming

The ACD supervisor has the ability to program the ACD parameters in the ECS system. This procedure requires the supervisor to press the feature key programmed as A.DATA and dial a five-digit security code. ECS ACD allows eight telephones to be assigned an A.DATA key. When the supervisor's telephone is in the programming mode only ACD data setting operations may be performed. The supervisor may program the data settings for the following items:

ACD GROUP: ACD Group Name, ACD Group Overflow Priority, Call Sequence Table Number and Change Time, Priority Change Timer and Level, ACD Group Expansion Timer and Destination, Queue Indication Number of Calls.

AGENT: Agent Name, Agent ACD Group Number, Agent Answering Priority, Agent Transfer Priority, ACD Call Automatic Connection - Method and Time, Wrap-Up Enable - Method and Time, Not Available - Method and Transition Time, Qualify Enable.

ACD Transfer to Call Park

This feature enables an active ACD agent to place an ACD call in Individual Call Park or transfer the call to another extension's Individual Call Park.

Barge-In

The barge-in feature allows the supervisor to enter an agent's conversation. Barge-in may be programmed to allow silent entry or provide interrupt tones.

Call Monitoring

The call monitoring feature allows the supervisor to silently listen to an agent's conversation. There are two methods to monitor an agent's conversation. The Monitor key will monitor an agent based on the extension number they are using. When the monitor key is used, off-hook signaling must be denied. The [Monitor n] key allows the ACD supervisor to monitor agents based on agent ID code instead of extension number.

Call Park / Swap

Agents can alternate between an ACD call and an ECS system call by pressing the PARK key.

Call Sequence Table

The Call Sequence Table sets the parameters that an ACD Call follows. Each ACD Group may have three types of Call Sequence Tables associated with it: one table for normal business hour operation, one table for after hour operation and one table for calls transferred to the ACD Group. The Day and Night Mode operation may be programmed to occur either automatically or manually. ACD calls in queue remain in the current Call Sequence Table when a mode change takes place.

ACD groups can be programmed to use specific call sequence tables if no agents are logged into the group or if the number of calls in queue exceeds a programmable threshold.

The ECS ACD offers sixty Call Sequence Tables. Each Call Sequence Table consists of eleven boxes for call delaying and processing instructions.

Play MSG	Play a recorded message
Auto Attendant Queue.....	Ability to play a message from a source such as a voice mail system
MOH.....	Play Music On Hold
Forward to Station	Overflow Forward to an extension and exit the ACD Group
Forward to Hunt Group	Overflow Forward to a Hunt Group and exit the ACD Group
Forward to ACD Group	Overflow Forward to another ACD Group and exit the original ACD Group
Go to Other Box	Go to another box in the same or different Call Sequence Table
Forward with SPD Dial	Overflow Forward to a System Speed Dial number (IX-4ETTRAN card required)
Disconnect	Disconnect the call
Delay/Answer	Delay for ring tone - call not answered by system
No Operation (Skip)	No operation

When a recorded message, delay or MOH is assigned to the first box in a Call Sequence Table, the ACD caller hears the entire recorded message, ring tone or MOH for the programmed length of time, and the call will not be distributed.

The following table illustrates the conditions that each box option is valid.

Box Option	Initial (New call for ACD Group)	Queued (Waiting for Idle Agent)	Distributed (Call Sent to Idle Agent)
Play MSG	Yes	Yes	Yes
Auto Attendant Queue	Yes	Yes	Yes
MOH	Yes	Yes	Yes
Forward to Station	Yes	Yes	No
Forward to Hunt Group	Yes	Yes	No
Forward to ACD Group	Yes	Yes	No
Go to Other Box	Yes	Yes	Yes
Forward with SPD Dial ⁴³	Yes	Yes	No
Disconnect	Yes	Yes	No
Delay/Answer	Yes	Yes	Yes/No
No Operation (Skip)	Yes	Yes	No

Call Sequence Table Number Change

The supervisor can select any of the preprogrammed call sequence tables without entering ACD supervisor programming.

Emergency Help Calls with Recording

During difficult call situations an Agent may record the conversation and notify the ACD Supervisor by pressing the Emergency Recording key. When the Emergency Recording key is pressed the dedicated paging port is activated, the ACD Supervisor is notified, and the Agent's Emergency Recording key flashes red. When the ACD Supervisor responds to the Emergency Recording request, the Agent's Emergency Recording key becomes solid red and the ACD Supervisor is in the Call Monitoring state.

An IX-MISC card and a paging port are required for this feature. This feature operates when the dedicated ACD Group paging port is idle.

Forced Qualify

This feature is available when automatic wrap-up is programmed. A code may not be entered during the five-second wrap-up time extension period. When this option is programmed, the Qualify key will flash red and a qualifier code must be entered.

Group Park

The ACD Group Park feature allows an active ACD agent to place an ACD call in Group Park. The ACD call status changes to a PBX call when an ACD call is placed in Group Park and the ACD Agent becomes available to take the next call.

Help

During difficult call situations, an Agent may request the help of an ACD Supervisor by pressing the Help key. When the Help key is pressed the ACD Supervisor is notified, and the Agent's Help key flashes red. When the ACD Supervisor responds to the Help request, the Agent's Help key becomes solid red and the ACD Supervisor is in the Call Monitoring state.

Message Recording

The ECS ACD can be programmed to play messages to callers waiting in queue. These messages are mailbox greetings for specific mailboxes stored in the Omega-Voice VMI or Esnatech Officelinx voice mail system. In order to update the messages the supervisor must know which mailbox greeting is being used for their ACD queue.

⁴³ When analog trunks are used exclusively for this operation an IX-4ETRAN card may be required.

Not Available

When the Not Available feature key is pressed, an Agent is excluded from receiving ACD Calls for an undefined period of time. There are two ways to activate the Not Available state: Reserved and Immediate. When the Reserved method is selected, the ACD Agent will be in the Not Available state upon pressing the Not Available key, and the ACD Call is disconnected. When the Immediate method is selected (the ACD Call becomes disconnected), and the Agent will be placed in the Not Available state when the Agent presses the Not Available key.

If an Agent should leave their workstation and forget to place their phone in the Not Available state, the ECS ACD will automatically place the Agent's phone in the Not Available state after a specified period of ACD Call ring time, 0-255 seconds.

Priority

Priority enables all types of ACD Calls to be ranked in the order that they are to be answered, regardless of time in queue. ACD Trunk Groups, ECS system extensions, Agent ID Codes (for transferring to another ACD Group) and ACD Groups (for Overflow Forwarding to another ACD Group) may be assigned one of eight possible priority levels. The call waiting in queue with the highest priority and the longest waiting time is the call answered first.

Each ACD Group has the option of enabling a Priority Change Timer. This timer allows the priority of an ACD Call to change after a specified period of time, 0-999 seconds. After the priority is changed, the call is then placed in queue relative to its new priority.

Qualification

During wrap-up, ACD agents may enter a three-digit code to identify the source, type or result of the call received. Four three-digit codes may be chained together for a total of twelve digits. Each three-digit code may represent a different source, type or result. Qualifier codes may be entered two ways: Manual or Preset. The Preset method allows codes to be programmed to a feature key for quick and accurate entry. Manual method, however, requires the Agent to dial the codes.

A programming option may be enabled to force an Agent to enter a qualification code. When Forced Qualify is enabled, the Agent will remain in wrap-up until the code is entered.

Queue

When all ECS ACD Agents are busy or unavailable, calls ringing into the ACD group are placed in queue. An ACD call remains in queue until an ACD Agent becomes free or a command in the Call Sequence Table forwards or disconnects the call. ACD Calls wait in queue in the order of assigned priority and time in queue. If there are calls in queue with different Priorities, the calls with the highest priority are answered first. When a call is placed in Queue, the ACD Group Expansion and ACD Call Priority Change Timers are activated.

Queue Indication

Each ACD Group may be assigned a Queue Indication key. This key provides the Agent or Supervisor with useful information about the number of calls waiting to be answered by their group. ECS ACD Queue Indication is provided in two ways.

- Lamp status of the QUEUEn key. Based on programming the red and green QUEUEn key LEDs will change status
- LCD text message will display the current queues status when the QUEUEn key is pressed.

LAMP INDICATION	NUMBER OF CALLS WAITING ⁴⁴
OFF	0
RED	LEVEL 1
FLASHING RED	LEVEL 2
FAST FLASHING RED	LEVEL 3
GREEN + TYPE OF RED	ACD GROUP EXPANSION

⁴⁴ Number of calls for each threshold level is programmable is programmable from 1 to 255 calls.

Pressing the Queue Indication key provides the ability to view the actual number of calls in the ACD Queue. When pressing the [QUEUEn] key (where n is the ACD group number) the number of ACD calls currently waiting in queue display on the ACD Agent's LCD. The maximum number of ACD calls in queue that display on the LCD is 255.

All three Queue Indication Levels as well as ACD Group Expansion can be associated with an external relay to activate a light or bell. An IX-EDVIF card is required for this operation.

Station Coaching

Station coaching provides the ability to whisper page a digital key telephone after invoking the monitor feature (hereafter called 'Whisper Monitor') without the caller hearing. monitoring stations (i.e., ACD supervisors) can whisper monitor other stations while on an outside call, an intercom call or an ACD call. While whisper monitoring a station (pressing the [*] key), barge-in is not allowed. However, barge-in is allowed while monitoring a station. This feature is useful because an ACD agent can receive assistance by an ACD supervisor while on a call, but without the caller hearing the ACD supervisor.

Super Queue

When a call rings an available ACD agent and that agent does not answer the call, the ACD call will return to the call queue once the Unavailable Transition Timer is triggered. When this timer is triggered, the status of the agent that did not answer the call is automatically changed from Available to Not Available and the call is returned to the call queue as a Super Queue (highest priority) call. The Super Queued call will follow each step programmed in the Call Sequence Table for that group. All visual indication is provided for the super queue call.

Transfer

Agents and supervisors can transfer ACD calls. When calls are transferred to extensions that are not logged in as ACD agents, the call is no longer tracked as an ACD call.

Transfer to ACD Group

The ACD Transfer key offers one-touch operation to transfer a call to an ACD group queue. First, the ACD Transfer key is programmed for a specific ACD group. When on a call, press the ACD Transfer key to transfer the call to the ACD group. When not on a call, press the ACD Transfer key to call the group. The ACD Queue key can also be used for transferring a call to an ACD group. While on a call, press Transfer plus the ACD Queue key to transfer a call to the ACD group.

Transfer to Call Park

This feature enables an active ACD Agent to place an ACD call in Individual Call Park or transfer the call to another extension's Individual Call Park.

Transferred / Forwarded Calls to ACD Group

Transferred/Forwarded calls to an ACD Group follow the ACD Group Day/Night setting programmed in your system. Calls can be programmed to transfer to the group during the day and forward to voicemail or another destination at night.

Wrap-Up

The wrap-up function temporarily takes agents out of queue and provides them with the ability to have a programmed period of time, 0-255 seconds, to complete paperwork after a call. Two call types are selectable for wrap-up, ACD calls only and ACD calls and outside line calls.

There are two methods to activate wrap-up: automatic wrap-up and manual wrap-up. When automatic wrap-up is selected, wrap-up starts when the ACD call is disconnected. The agent remains in wrap-up for a programmable period of time. When manual wrap-up is selected, pressing the wrap-up key disconnects the call and starts the wrap-up. If an agent finishes their after-call work before the programmed wrap-up time has elapsed, the agent may press the wrap-up key to start receiving calls again.

When an agent is programmed for automatic wrap-up, the agent will be notified by a warning tone five seconds prior to the end of wrap-up. When this tone is heard the agent may repeat the length of wrap-up time by pressing the wrap-up key again.



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