

# Iwatsu Enterprise-CS Integration Guide

Encore Workforce Optimization Solution  
Version 7.0 or later

May 28, 2019

 **encore**

**For Dealer  
and Customer  
Use Only**

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# Introduction

The Encore system integrates with the ICON Voice Networks Iwatsu Enterprise-CS (ECS) PBX. This integration allows the Encore system to successfully perform the following functions:

- Audio Collection – Capture the audio that needs to be recorded.
- Recording Control – Receive the necessary events that signal when the Encore must start and stop recording.
- Data Capture – Receive data associated with the call.

## Supported Data Capture

The following is a list of the supported data elements that can be collected with each recording. Not every element is applicable for each call. For a description of each data element, refer to “[Appendix 1: Glossary](#)” on page 7.

- Agent ID
- ANI
- Dialed Number
- DNIS
- Extension
- Trunk ID

## Supported Recording Features

The following matrix shows the recording features available with this integration. For a description of each feature, refer to “[Appendix 1: Glossary](#)” on page 7.

RECORDING FEATURE	AUDIO COLLECTION METHOD	
	TRUNK-SIDE TDM	STATION-SIDE RTP PACKET CAPTURE (PASSIVE INTERFACE)
Max. Recording Ports per Server <sup>^</sup>	288	500
Record External Calls	YES	YES
Record Internal Calls		YES
Record Encrypted Calls	YES	

<sup>^</sup>Small Business Servers are limited to 72 ports.

## Software and Hardware Requirements

SYSTEM	SOFTWARE REQUIREMENTS
Iwatsu ECS system	<ul style="list-style-type: none"> <li>• For Trunk-side TDM               <ul style="list-style-type: none"> <li>○ TCP/IP HCIF port</li> <li>○ If using PRI/ISDN Trunk-side TDM, ECS software v8.3 or later is required</li> </ul> </li> <li>• All audio collection methods               <ul style="list-style-type: none"> <li>○ ACD Events license (PN00314)</li> </ul> </li> </ul>
Encore system	<ul style="list-style-type: none"> <li>• All audio collection methods               <ul style="list-style-type: none"> <li>○ CTGate.exe v6.30.1000 or later</li> <li>○ CTAdixHCIF.dll v1.7.1000 or later</li> </ul> </li> <li>• For Station-side RTP Packet Capture               <ul style="list-style-type: none"> <li>○ If standalone ECS system, use Encore Direct which is limited to 24 ports (see <i>Encore Direct for Iwatsu Enterprise-CS Installer's Guide</i>)</li> <li>○ If ECS IP Campus application, use Encore Small Business System or Encore Enterprise</li> </ul> </li> </ul>

SYSTEM	HARDWARE REQUIREMENTS
Iwatsu ECS system	<ul style="list-style-type: none"> <li>• All audio collection methods               <ul style="list-style-type: none"> <li>○ APS or ECS</li> </ul> </li> <li>• Trunk-side TDM               <ul style="list-style-type: none"> <li>○ Must allow Encore to tap at the trunk</li> </ul> </li> <li>• Station-side RTP Packet Capture               <ul style="list-style-type: none"> <li>○ Span port on network to route all RTP traffic for recorded stations to Encore server</li> <li>○ DHCP IP address reservation or static IP assignment for each station to be recorded</li> <li>○ Iwatsu IP phones with a license</li> <li>○ If using the Encore Direct solution                   <ul style="list-style-type: none"> <li>▪ IX-APPSRV card</li> <li>▪ USB NIC if the switch does not support port mirroring with communication. ICON Voice Networks tested this with TrendNet TU2-ET100.</li> </ul> </li> </ul> </li> </ul>
Encore system	<ul style="list-style-type: none"> <li>• Trunk-side TDM               <ul style="list-style-type: none"> <li>○ AudioCodes DP PCIe card</li> </ul> </li> </ul>

## Documentation Overview

This document provides integration information for a specific phone system. It helps a user to understand the features and benefits of the integration as well as what needs to be configured on the phone system. Configuration steps necessary to enable this integration on the Encore system are covered in the *Encore Installation Guide* and the *Iwatsu Enterprise-CS Installation Addendum*.

If the customer is using Encore Direct, see the *Encore Direct for Iwatsu Enterprise-CS Installer's Guide*.

If the customer is using an Iwatsu ADIX PBX, see the previous integration guide titled, *Iwatsu Switch Integration Guide*, dated October 19, 2009.

Conventions used in this guide include:

1. Computer commands needed to complete a task appear like this: **Sample** (in black)
2. Keyboard strokes that need to be entered appear like this: [Sample]

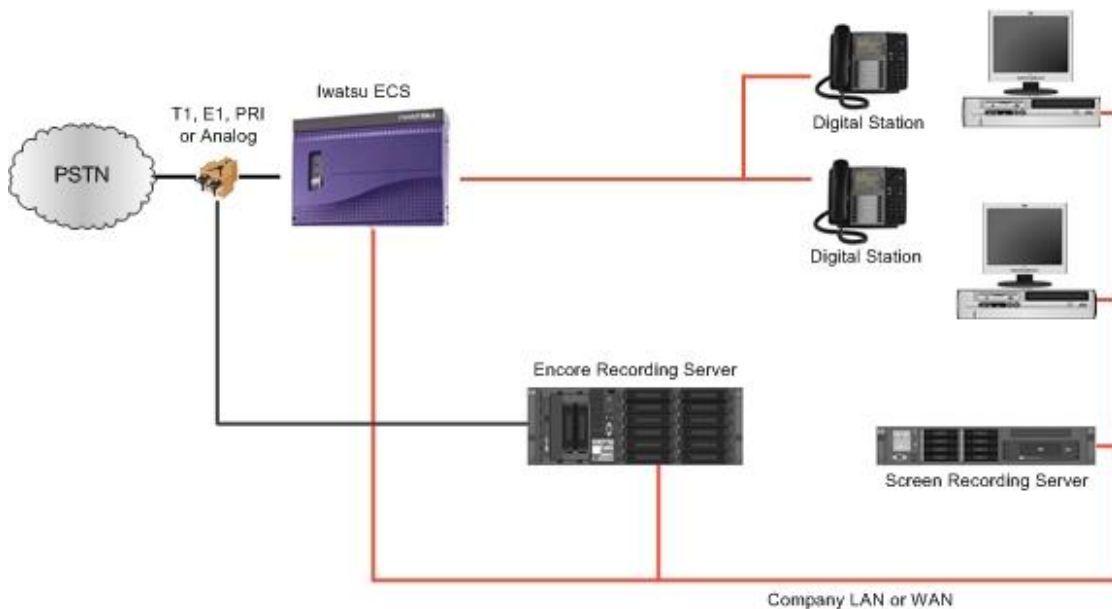
## Overview

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This section provides an overview of each audio collection method. For simplicity sake, the diagrams only display a single Encore server but there can be multiple Encore servers depending on the number of stations to be recorded.

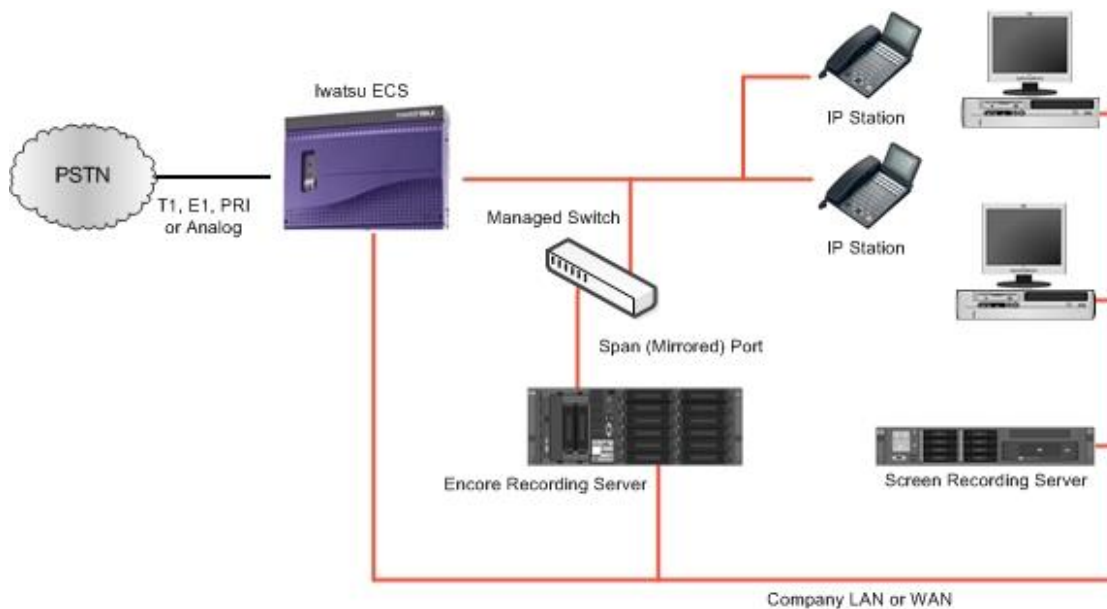
### Trunk-side TDM

The Trunk-side TDM method uses a passive tap on the telephony trunks that connect the Iwatsu ECS PBX to the PSTN. The trunks can be T1, E1, or Analog. This passive tap is connected to the recording boards in the Encore server. The audio is collected via the passive tap. Based on events received from the recording boards or from the ECS ACD Events received, call recordings can be started and stopped, and data can be associated with the call record.



## Station-side RTP Packet Capture

The Station-side RTP Packet Capture method uses a span port to collect the RTP audio packets directly from the network segment that includes the VoIP traffic. Based on the ECS ACD Events received, the Encore server collects the RTP packets for a specific IP or MAC address and converts the RTP data to an audio recording file. Encore collects data associated with the call from the Iwatsu ECS messages.



## Configure Iwatsu ECS System

Verify that the Encore server, where CT Gateway is installed, has connectivity to the Iwatsu ECS LAN2 IP Port. In systems where two applications require connection to ECS ACD Events (e.g. TASKE), Enterprise Services is required.

**NOTE** Logical port 7 uses TCP port 5008.

Set the Class/Item mode to:

- Class: 4.72.15=7

Set the Category mode to:

- Category: System | System Features | Ports
- Event Code Output=7

If using an ISDN Trunk-side system, verify you are running Iwatsu Programmer version 5.0.4211 or higher. Be sure to enable the **Class 04, Item 70, Element 09 (ISDN Channel Notification Event)**. Or, browse to **System | System Features** and set the **ISDN Chan Notify Evt** to **Enable**.

If the Encore system is recording T1 CAS trunks, an **Access No.** must be defined for each recorded trunk. The **Access No.** is used by the DVSAalytics installer to identify the trunk.

## Call Handling Scenarios

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This section explains how different calls are displayed in Encore when a Trunk-side TDM audio collection method is used.

- Recorded/Non-Recorded Stations – Recording stops when a non-recorded station joins the call and resume when the non-recorded station leaves the call.
- Hold – A single recording is made when a trunk call is put on hold and retrieved.
- Internal Consultation – When a trunk call is put on hold and an internal consultation call is made, recording on the trunk stops when the consultation call ends. Recording is restarted when the trunk call is retrieved.

## Appendix 1: Glossary

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### **abandoned call**

An incoming call which is answered by the ACD but terminated by the caller before it is answered by an agent.

### **ACD**

Automatic Call Distributor. An application that answers calls and directs them to a predetermined queue, or line, of waiting calls. In most cases, the ACD ensures that the first call in is the first call answered. It also determines which agent receives a call based on predetermined criteria such as idle time or availability and generates reports on call volume and distribution.

### **agent**

A person who handles phone calls. Other variations include operator, attendant, representative, customer service representative (CSR), telemarketer, phone sales representative (TSR), and so on.

### **ANI**

Automatic Number Identification. For inbound calls, this is the customer's number (may not be supported by the trunk). For outbound calls, this is the dialed number.

### **APS**

Application Processing System from ICON Voice Networks.

**automated attendant**

A voice processing system that answers calls with a recording and then enables callers to press touch-tone buttons to navigate through a menu system to a person, department, or voice mail.

**call direction**

The direction is either incoming (inbound) or outgoing (outbound).

**Call ID**

A unique number used by the database to identify each recording. The call identifier for a recording can be viewed in Encore.

**call record**

An entry in a database that holds the data associated with a call.

**call type**

The call type is either internal or external.

**consultation call**

This field shows Yes when the recording is a consultation call.

**digital recording**

A method of recording that converts analog sound into a series of pulses that are translated into binary code, which is read by computers.

**DNIS**

Dialed Number Identification Service. For inbound calls, this is the number the customer dialed or the agent's extension number (may not be supported by the trunk).

**ECS**

Enterprise Communication Server from ICON Voice Networks.

**encrypted calls**

Calls that have the audio RTP packets encrypted. This prevents 3rd party applications, such as the Encore system, from using the RTP packets for recording.

**extension**

The number associated with a person's station. Extension and station are sometimes used interchangeably.

**external calls**

In these calls, the calling or called parties are outside the PBX.

**inbound**

Calls which are received/answered by a recorded party.



**internal calls**

In these calls, the calling and called parties are extensions on the PBX.

**media encrypted calls**

Calls that have the audio RTP packets encrypted. This prevents 3rd party applications, such as the Encore system, from using the RTP packets for recording.

**other call ID**

An identifier for another call that is related to the current call recording.

**other party name**

Name of the other party on the line with the person being recorded, may be blank if this is an external call.

**other party number**

Number of the other party on the line with the person being recorded; if external and incoming call, this is an ANI.

**outbound**

Calls which are initialed/placed by a recorded party.

**PBX (PABX)**

Private (Automated) Branch Exchange. The phone system to which the office phones are connected.

**recorded party name**

Name of person being recorded.

**recorded party number**

Number of the person being recorded.

**recording**

The audio recording, screen recording, and database record associated with a single phone call or conversation.

**station**

A phone connected to the PBX.

**TAPI**

Telephony Application Programming Interface. A telephony software interface included in Microsoft Windows operating system that supports the incorporation of telephony control by other applications.

**TCP/IP**

Transmission Control Protocol/Internet Protocol. The Internet Protocol Suite is the set of communications protocols used for the Internet and other similar networks.

**third call ID**

An identifier for another call that is related to the current call recording.

**trunk**

The connection between the phone company and the PBX that carries incoming calls.

**trunk ID**

The trunk of a call. If the call is an internal call, then this field is blank. Captured for all inbound/outbound calls.

**work group name**

If the call is a work group call, then the name of the work group is stored in this database field. If the call is not in a work group, then the field is blank.

**work group number**

If the call is a work group call, then the number of the work group is stored in this database field. If the call is not in a work group, then the field is blank.