Establish ECN Connectivity
Connected Entity Service Guide

Version 2.0
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1. Introduction

The California ISO (CAISO) is a not-for profit public benefit corporation charged with managing the flow of electricity along California's high voltage electric power grid. The mission of the CAISO is to plan and operate a safe and reliable electric system, provide open and non-discriminatory electric transmission services, and facilitate appropriate investment in electric transmission and generation infrastructures.

AT&T provides the data network infrastructure that supports the CAISO entities that conduct business with the CAISO, and Western Electric Coordinating Council (WECC) participants that require connectivity to the WECC Operations Network (WON). This AT&T network infrastructure is commonly referred to as the Energy Communications Network (ECN). The ECN utilizes AT&T's core backbone and AT&T VPN (AVPN) technology.

The entities that connect to the ECN are commonly referred to as Connected Entities (CEs). CEs can require network connectivity to support various business purposes. Some common CEs include Remote Intelligent Gateways (RIGs), Area Control Centers (ACCs) using Inter Control Center Communications Protocol (ICCP), Data Processing Gateways (DPGs); Revenue Meters, Scheduling Coordinators (SCs), and WON participants.

AT&T offers a variety of transport and managed router service options that are detailed in this guide. Instructions and forms are provided to assist CEs in obtaining an ECN connection.

2.   Types of Service

AT&T offers two access options:

1) T1 1.544mbps AVPN – Utilizes a traditional RJ45 or dry loop (Local Exchange Carrier discretion) local loop for access.

2) AT&T Network Based IP VPN Remote Access (ANIRA) – Utilizes Internet connection (i.e. broadband/DSL/wireless etc.) as the local access.

Both access options provide connectivity back to the core AT&T ECN. The following table displays the access options and cost breakdown. The CE is responsible for any required high voltage protection equipment and extensions beyond the demarcation point.

Access Options	Installation Cost	Monthly Recurring Cost
T1 (1.544mbps)	Waived if kept for at least one year	Refer to Connected Entity (CE) Order Form – 1.544mbps (T1) for AVPN
ANIRA	Varies depending on access provider.	Refer to Connected Entity (CE) Order Form – ANIRA (Remote Access solution)

AT&T provides router management with a number of options ranging from full router installation and management to the management of existing routers. AT&T purchased and managed router options provide the end user with a new router designed and set up for their specific application. For this service option a modem and telephone line are required.

2.1. Managed Services

For Managed Services, select the appropriate Site Type options as specified below. Specific details including monthly management and maintenance charge regarding the package options below are included in Connected Entity Order Form – 1.544mbps (T1) for AVPN.

Option	Details
Option 1 – Site Type 1	Cisco 1941 router (T1 HWIC)
Option 2 – Site Type 2	Cisco 2911 router (T1 HWIC)
Option 3 – Site Type 3	Cisco 2921 router (T1 HWIC)
If CE requires additional equipment for router options 1 -3 above, CE should select from option 4 - 8 below.	
Option 4 – Site Type 4	Cisco 4-port Ethernet switch interface card
Option 5 – Site Type 5	Cisco 4-port Async Serial HWIC
Option 6 – Site Type 6	Cisco 8-port Async Serial HWIC
Option 7 – Site Type 7	Cisco 16-port Async Serial HWIC
Option 8 – Site Type 8	Additional T1 HWIC
Option for Managed-in-place only (for Management and Maintenance Services of CE existing legacy Equipment)	
Option 1 – Site Type 9	Cisco 1841/1941 router (T1 HWIC with dial backup)
Option 2 – Site Type 10	Cisco 2911 router (T1 HWIC)
Option 3 – Site Type 11	Out-of-life Equipment (Management Only = subject to availability)

3.   How to Establish ECN Connectivity

To order service, complete the following steps:

1. Contact the CAISO Help Desk at **888-889-0450** or if you are a Scheduling Coordinator (SC) contact your CAISO Client Representative and they will confirm that you have an approved application to become a Scheduling Coordinator on file. Either the help desk or your Client Representative will open a ticket with CAISO Network Services to request new ECN Connectivity.

2. The CAISO AT&T Account Manager will contact and assist the potential CE with completing the required documentation.   The following documentation is required:
   - One signed copy of the Connected Entity Access Service Agreement
   - One signed copy of the CE Order Form
   - High Voltage Protection form 1039A
   - One signed copy of AT&T Network Integration Connected Entity Help Desk Services (must be included if the ANIRA option is chosen)
   - All pages of these documents must be sent to the CAISO AT&T Account Manager for processing
   - AT&T will return a countersigned copy of each document at the completion of the request.

3. The CAISO AT&T Account Manager will ensure that the ordering packet is complete and will verify the address with the United States Postal Services (USPS) website.

4. The Provisioning Team will confirm the order information with the CE.

5. The Local Exchange Carrier (LEC) will determine a due date and will communicate that due date to the AT&T Provisioning team.

6. AT&T Implementation Service Manager will notify the site contact & AT&T team that access circuit has been delivered.   If a Managed Router is ordered, the date for its delivery will be communicated to the CE.

7. AT&T business manager will work with the site contact to arrange for an installation time and will order the field technician.

8. Once the circuit and necessary hardware are installed, the Provisioning Team will work with the CE to confirm connectivity back to the ECN.

9. 24 hours after installation is complete, the circuit will be handed over to the Global Client Support Center for maintenance/monitoring and billing will commence.

4. Provisioning Timelines

The average time to provision T1 & ANIRA orders is 30 to 45 days. If special construction is required, installation interval will vary.

5. Technical Overview

Once a completed Order Form is received, the Technical Solutions Engineer (TSE) will contact the CE and make necessary implementation arrangements, based on the type of service requested from AT&T (Managed, Manage-In-Place or Access Only).

- If managed router services are selected, the TSE will order equipment, dispatch an AT&T technician to install the equipment, configure the router and test router connectivity to the ECN.
- If management of an existing router option is selected, the TSE will work with customer to bring location onto the ECN.
- If access only is selected, AT&T provisioning will provide private IP address assignment to the customer. The CE is responsible for configuring their own equipment.
- IP addresses are assigned from an IP pool, which is maintained by the TSE.

6. General Help / Report Service-Related Issues

For general help, 24/7 - CAISO Help Desk at 888-889-0450.
Moves, Adds, Changes & Deletes – CAISO Help Desk 888-889-0450
Managed Service Issue – 888-504-4001
Access Only – 800-222-1000
ANIRA – 855-390-0652 or caisoservice@dsrglobal.com

7. AT&T Account Manager Contact Information

AT&T Contact	Address	Contact Information
Primary: Sonia Fernandez	2700 Watt Ave. Rm 4292 Sacramento, CA 95821	916-972-3734 Sf6525@att.com
Secondary: Clifton Jones	2700 Watt Ave Rm 4292 Sacramento CA 95821	916-335-9552 cj3638@att.com