



ISY-994iZ Series – OpenADR Configuration Guide

1) ISY Installation

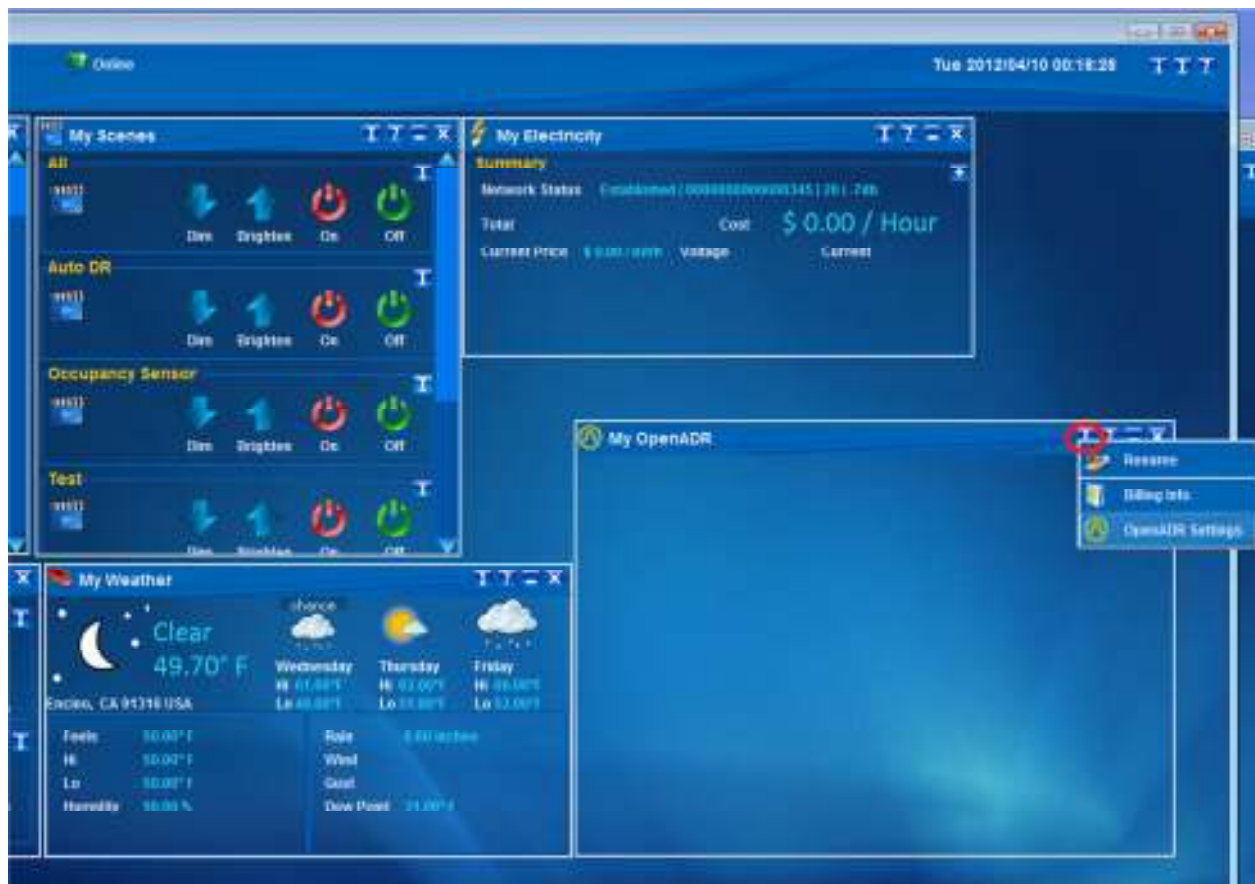
- a) Connect one of the included Cat5e cable to ISY's **Network** Port and to your network hub. **Note:** the network must *initially* be DHCP enabled.
- b) [Optional] Connect the second included Cat5e cable to ISY's **Port A** and the other end to the PLM
Note: If your PLM is model number 2413S, you do need a power supply (not included)
- c) If you do not have Java installed, please install the latest for your platform. You may find the latest Java downloads at <http://www.java.com/getjava> . Please choose the latest JRE for your platform
- d) Go to <http://isy.universal-devices.com/99i/zs/dashboard.jnlp> ; when prompted to authenticate, enter **admin** for both user-id and password


2) Configure OpenADR

a) Activate My OpenADR Portlet



b) Adjust OpenADR Settings



 OpenADR Settings

☒ Enabled

Polling Interval (sec)

5

Profile

2.0

a

Server URL

http://192.168.0.100:8080/OpenADR2/Simple/EiEvent

User ID

admin

Password

OpenADR 2.0 Settings

VTN Interaction Mode

Pull

Evaluation Interval (sec)

5

VTN ID

TH_VTN

VEN ID

ISY_2022

Party ID

Resource ID

Group ID

Market Context

Normal Mode Settings

Setpoint Offset °

1

Duty Cycle %

25

Load Adj %

3

Moderate Mode Settings

Setpoint Offset °

2

Duty Cycle %

50

Load Adj %

6

High Mode Settings

Setpoint Offset °


3


Duty Cycle %

60

Load Adj %

9

 Save

 Cancel

-
- The screenshot displays the 'My OpenADR' application interface. At the top, a status bar shows the date and time: 'Tue 2012/04/10 00:22:41'. The main window is divided into two panes. The left pane, titled 'My Electricity', contains a 'Summary' section with the following data: Network Status (Established | 0000000000000345 | 20 | -7db), Total Cost (\$ 0.00 / Hour), Current Price (\$ 0.10 / kWh), Voltage, and Current. The right pane, titled 'My OpenADR', displays details for an event: 'Event100412_122232_902_0 / OadrDisReq100412_122232_901'. The event status is 'Far', and the current value is 'Normal'. The start time is '2012/04/10 00:23:32' and the end time is '2012/04/10 00:53:32'. Below the event details, there are two buttons: 'Opt Out' (with a red X icon) and 'Details' (with a document icon). At the bottom of the interface, there is a weather forecast section showing 'Thursday' and 'Friday' with high and low temperatures, and a precipitation forecast of '0.00 inches'.
- Tue 2012/04/10 00:22:41
- My Electricity**
- Summary**
- Network Status Established | 0000000000000345 | 20 | -7db
- Total Cost \$ 0.00 / Hour
- Current Price \$ 0.10 / kWh Voltage Current
- My OpenADR**
- Event100412_122232_902_0 / OadrDisReq100412_122232_901
- | Status | Disposition | Opted In |
|--------|-------------|----------|
| Far | | |
- | Current Value | Priority | Mod. # |
|---------------|----------|--------|
| Normal | 0 | 0 |
- | Start Time | End Time |
|---------------------|---------------------|
| 2012/04/10 00:23:32 | 2012/04/10 00:53:32 |
- Opt Out** **Details**
- Thursday Friday
- Hi 62.00°F Hi 60.00°F
- Lo 51.00°F Lo 52.00°F
- 0.00 inches
- 0 mph E
- 1 mph E
- 33.00°F

OpenADR Event Details

Event100412_122332_902_0 / PING_OadrDisReq100412_122322_205

Status	Active	Disposition	Opted In	Response Type	Always
Priority	0	Mod. #	0	Created Time	2012/04/10 00:23:32
Notification Time	2012/04/10 00:23:32	Ramp Up Time	2012/04/10 00:23:32	Recovery Time	2012/04/10 00:53:32
Start Before	0 (seconds)	Start After	0 (seconds)	Duration	1800 (seconds)
Start Time	2012/04/10 00:23:32	Actual Start Time	2012/04/10 00:23:32	End Time	2012/04/10 00:53:32
VTN Comment					
Market Context	http://MarketContext1				

Opt Out

Current Value

ID	Type	Value	Mode
N/A	float	1.000000	Moderate

Signal

ID	Type	Name
String	level	simple

Intervals

ID	Duration	Start Time	End Time	Type	Value	Mode
0	900 (seconds)	2012/04/10 00:23:32	2012/04/10 00:38:32	float	1.000000	Moderate
1	900 (seconds)	2012/04/10 00:38:32	2012/04/10 00:53:32	float	2.000000	High

Targets

Groups

Cancel

f) Use the Event Viewer to see the operational status of ISY and OpenADR events

Tue 2012/04/10 00:24:41

Event Viewer

Shows active events as they b

Electricity

ry

k Status Established | 0000000000000345 | 20 | -7db

Cost \$ 0.00 / Hour

Price \$ 0.10 / kWh Voltage Current

My OpenADR

Event100412_122232_902_0 / PING_OadrDisReq100412_122322_205

Status	Active	Disposition	Opted In
Current Value	Moderate	Priority	0
		Mod. #	0
Start Time	2012/04/10 00:23:32	End Time	2012/04/10 00:53:32

Opt Out Details

Event Viewer

Tue 04/10/2012 00:12:31 : [MOD-OADR2] Connecting to http://192.168.0.100:8080/OpenADR2/Simple/EiEvent

Tue 04/10/2012 00:12:36 : [MOD-OADR2] No Response from http://192.168.0.100:8080/OpenADR2/Simple/EiEve...

Tue 04/10/2012 00:12:36 : [MOD-OADR2] Warn: Current Event is null

Tue 04/10/2012 00:25:54 : [MOD-OADR2] Warn/eiResponse: requestID is Null

Tue 04/10/2012 00:25:59 : [MOD-OADR2-OPT] No pending opt for event[Event100412_122232_902_0]

Tue 04/10/2012 00:25:59 : [MOD-OADR2] Status: Active, Mode: Moderate

Tue 04/10/2012 00:25:59 : [MOD-OADR2] Price: 0.100

Tue 04/10/2012 00:25:59 : [MOD-OADR2] Start Time: 2012/04/10 12:23:32 AM

Tue 04/10/2012 00:25:59 : [MOD-OADR2] End Time: 2012/04/10 12:53:32 AM

Tue 04/10/2012 00:25:59 : [Garage] Auto DR : Process event

Tue 04/10/2012 00:25:59 : [Garage] Auto DR : Device not configured for DR

Tue 04/10/2012 00:25:59 : [RCS 0013A2004071] Auto DR : Process event

Tue 04/10/2012 00:25:59 : [RCS 0013A2004071] Auto DR : No changes for device

Tue 04/10/2012 00:25:59 : [INSTEON Thermost] Auto DR : Process event

Tue 04/10/2012 00:25:59 : [INSTEON Thermost] Auto DR : No changes for device

Clear

Level

3. Device communications events

0. None

1. Status/Operational events

2. More info

3. Device communications events

Auto Scroll

Encino, CA 91316 USA

Feels 49.00° F

Hi 50.00° F

Lo 49.00° F

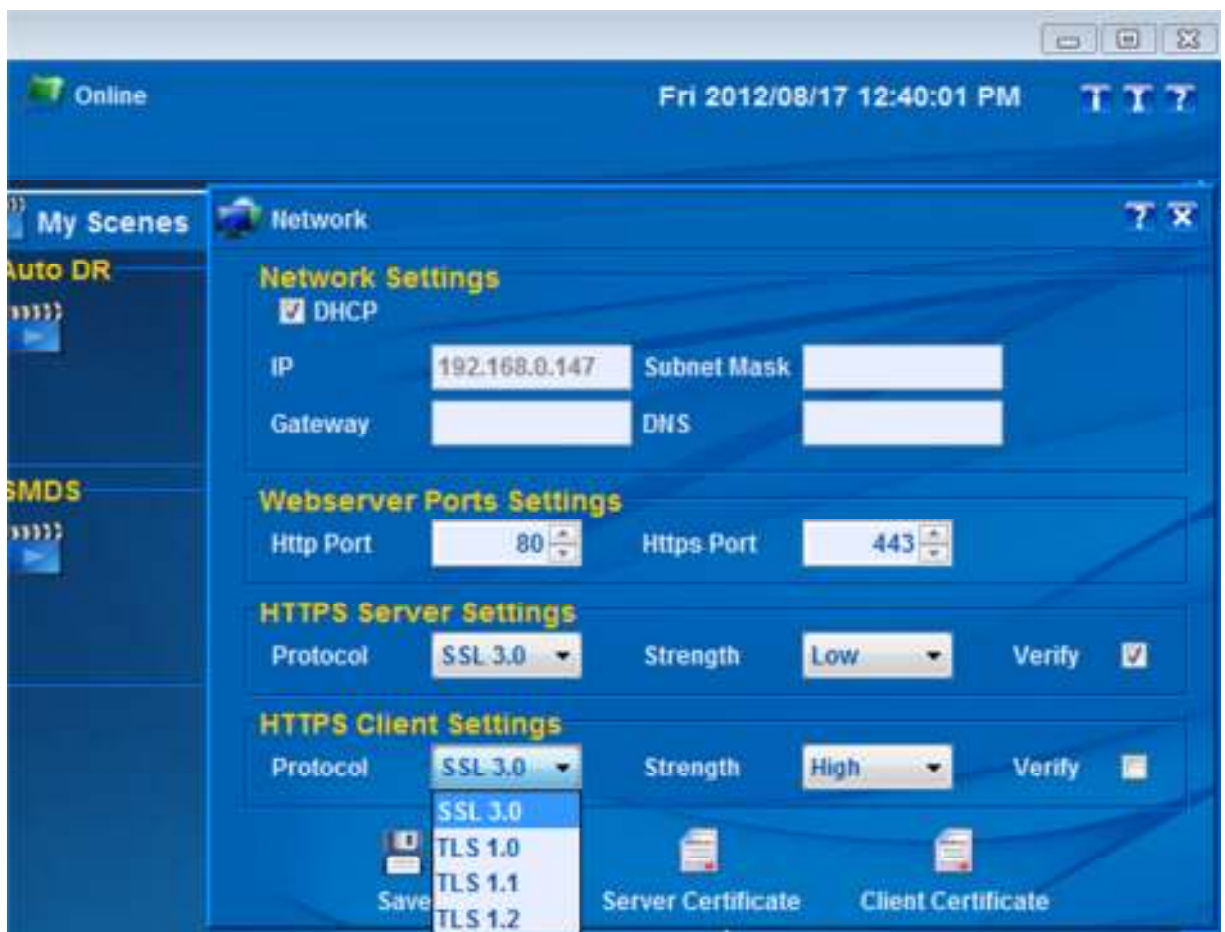
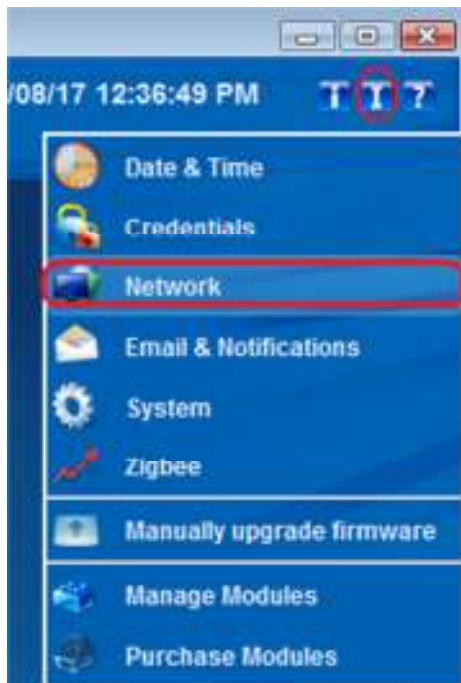
Humidity 53.00 %

Wind 0 mph E

Gust 1 mph E

Dew Point 32.00° F

3) Configure Network Security



Protocol: A maximum protocol level supported by client or server. Please note that if you use TLS 1.2 and if the peer is requesting TLS 1.0, then ISY will downgrade to TLS 1.0.

Strength: The symmetric key strengths. Each strength has an ordered/priority list of cipher suites that ISY will use to determine its operations. The priority is from high to low (top to bottom):

High:

SSL_RSA_WITH_AES_128_SHA2
SSL_RSA_WITH_AES_256_SHA2
SSL_RSA_WITH_AES_128_SHA
SSL_RSA_WITH_AES_256_SHA

Medium:

SSL_RSA_WITH_AES_128_SHA
SSL_RSA_WITH_AES_256_SHA
SSL_RSA_WITH_RC4_128_SHA
SSL_RSA_WITH_RC4_128_MD5

Low:

SSL_RSA_WITH_RC4_128_MD5
SSL_RSA_WITH_RC4_128_SHA
SSL_RSA_WITH_AES_128_SHA

Verify: Whether or not client/server authentication should be performed on the peer.

4) **Certificate Management**

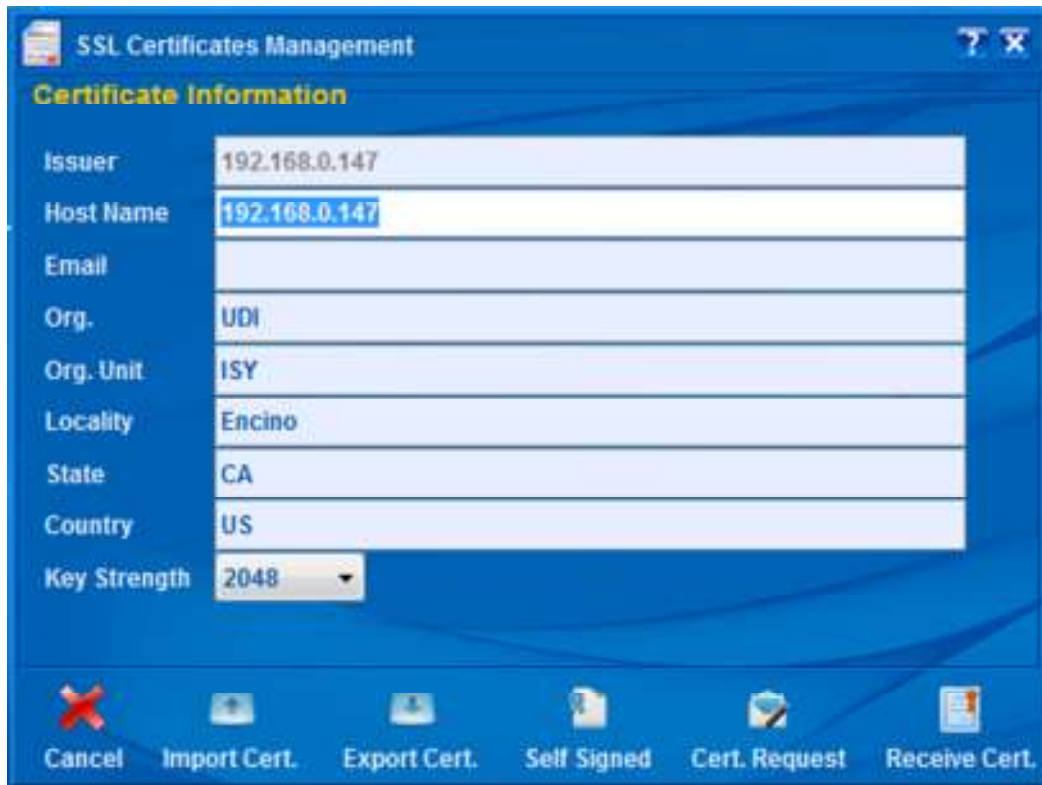
The operations for Server Certificates and Clients Certificates are identical. As such, in this section only Server Certificates are discussed.

In the Network Dialog (see section 3), click on the Server Certificate. You will be prompted by:



Yes: This will load the certificate store from ISY for which you must have a valid password that you had setup before.

No: This will recreate a new certificate store and overwrites any previous certificate information. The requested password is the password you would like to use to access the store in the future (see Yes).



The screenshot shows a window titled "SSL Certificates Management" with a sub-header "Certificate Information". The window contains several text input fields for certificate details. The "Host Name" field is highlighted with a blue selection bar. At the bottom of the window, there is a row of six buttons: "Cancel", "Import Cert.", "Export Cert.", "Self Signed", "Cert. Request", and "Receive Cert.". Each button has a small icon above it.

Issuer	192.168.0.147
Host Name	192.168.0.147
Email	
Org.	UDI
Org. Unit	ISY
Locality	Encino
State	CA
Country	US
Key Strength	2048

Import Cert.: If you have a PKCS12 (pfx) format file which includes both the Certificate as well as the Private Key, then choose this option import both. ISY will be rebooted for the changes to take effect.

Export Cert.: Use this button to export an existing certificate in PEM format.

Self Signed: If you wish to create a self signed certificate, make sure to enter and/or update (in case you are working on an existing certificate) all the necessary information in the fields and *then* click on the **Self Signed** button.

Cert. Request: If you wish to have your certificate signed by a CA, you need to create a CSR. To create a CSR, make sure to enter and/or update (in case you are working on an existing certificate) all the necessary information in the fields and *then* click on the **Cert. Request** button.

Receive Cert.: If you have already made a Cert Request and have now been given an actual certificate based on your Cert Request (CSR), then click on the **Receive Cert** button to import the Certificate into ISY.