POLYGLOT CLOUD

Usage Documentation

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Polyglot Cloud

Introduction

Welcome to Polyglot Cloud! Universal Devices Inc now has a cloud hosted nodeserver platform that works just like the existing on-premise version of Polyglot, without the need for a system to run it on. It works through the existing ISY Portal, so you will need that to use Polyglot Cloud. All commands are proxied through Portal, so no additional connections are necessary, and all data sent to your ISY is secured and encrypted!

Get started here: https://polyglot.isy.io/

Getting Started

Visit the link above you will be presented with the landing page prompting you to log in. Make sure you have your ISY Portal credentials handy. The Portal is located at https://my.isy.io/
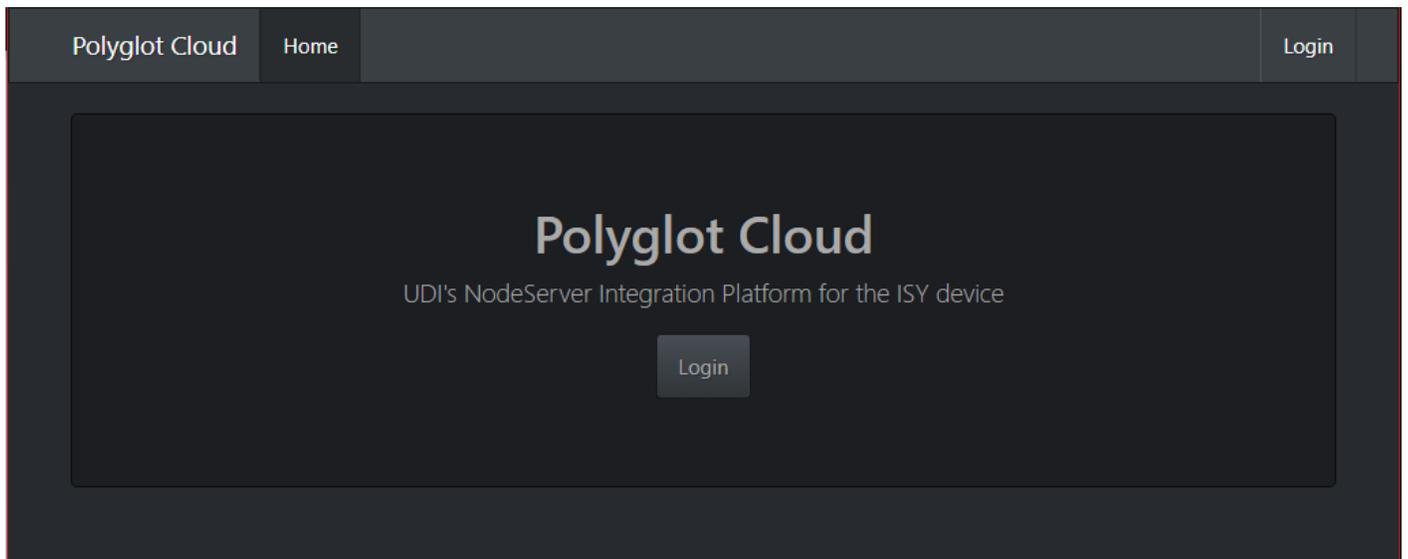
Click on either Login button and you will be redirected to Portal and being the Oauth2 login flow. If you don't know what Oauth2 is, don't worry, it's just how we securely authorize you with a single login username and password for all of UDI's platforms.
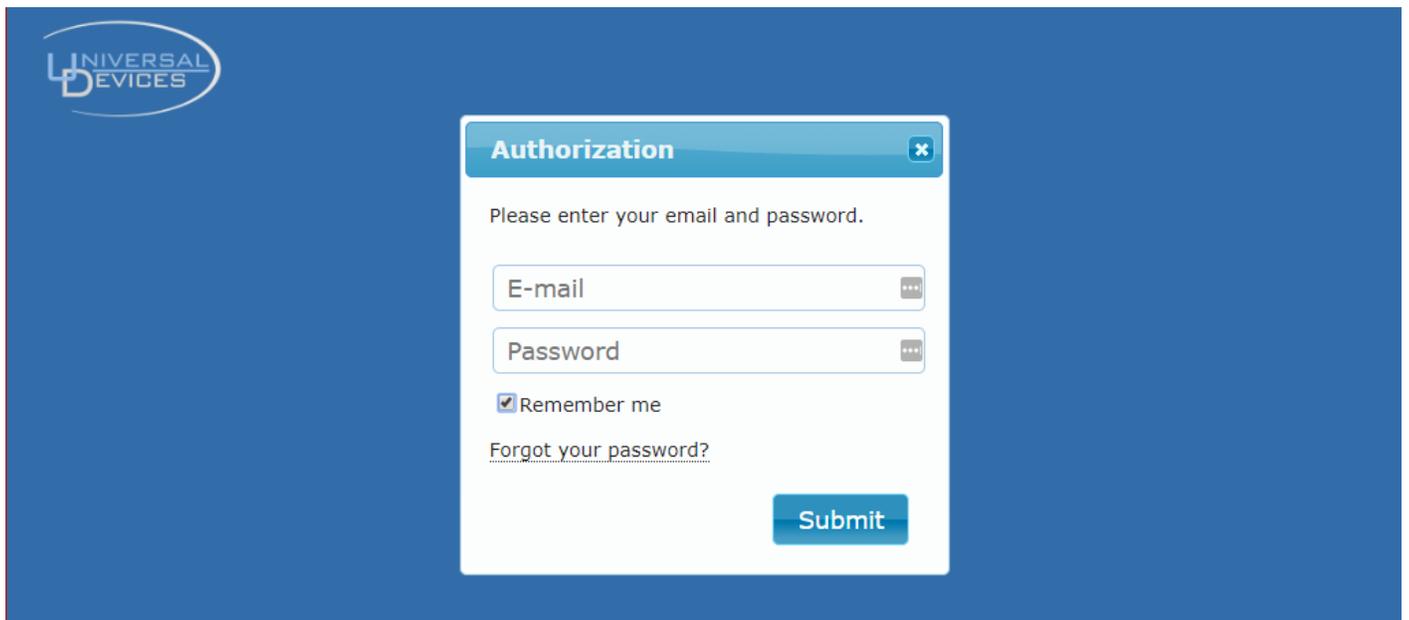

Enter your username and password and hit submit. If you entered your credentials successfully you will be redirected back to the Polyglot Cloud dashboard screen.

** Note: if you are returned to the login screen please verify you have a default ISY in the portal!
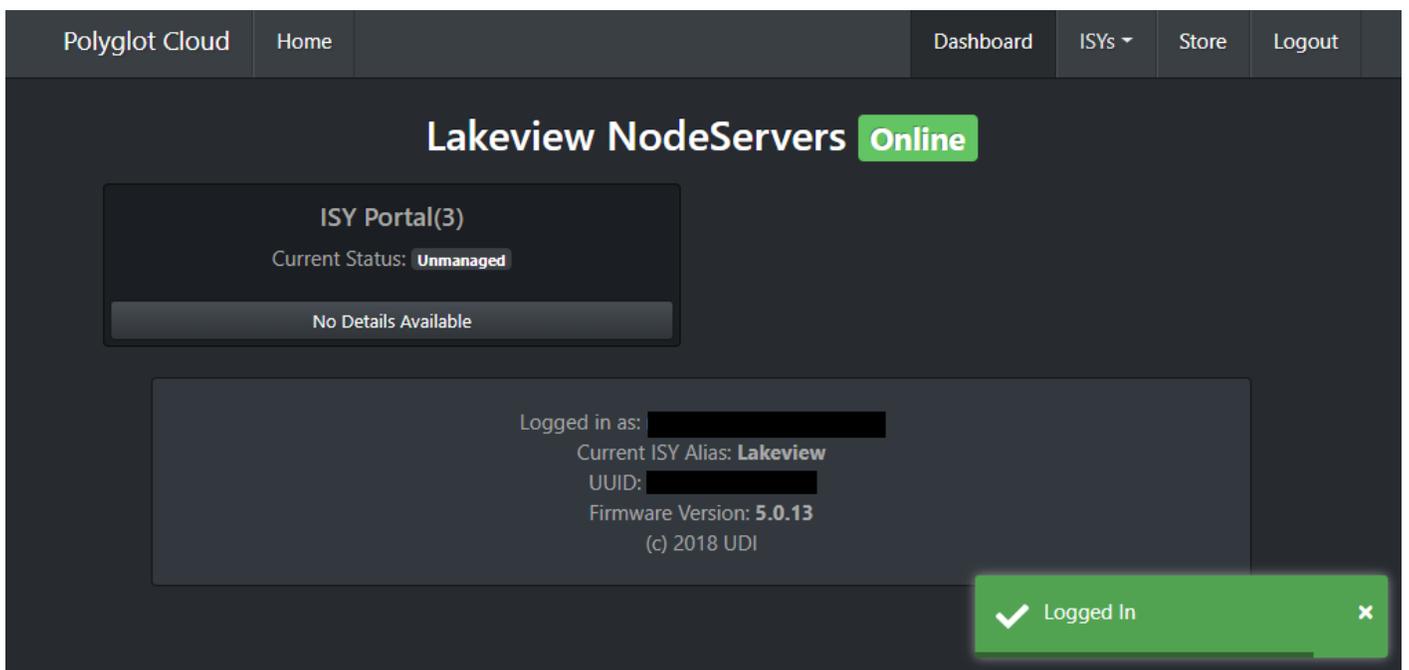
Multiple ISY Devices

If you have multiple ISY devices you can select which you would like to work with from the ISYs menu at the top navigation bar of Polyglot Cloud.
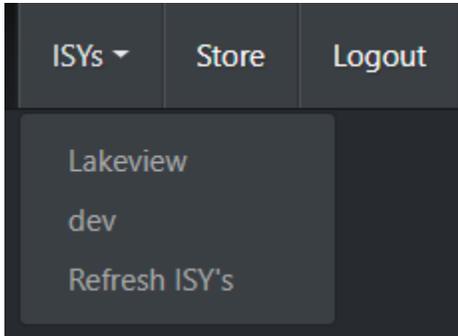
Once you select the ISY, your Dashboard screen will reflect all currently configured NodeServers you have installed. If they are not managed by Polyglot Cloud, you will see the Current Status show as 'Unmanaged' like the ISY Portal NodeServer on the previous page screenshot.

Install NodeServer

Now that you are logged in, you probably should install a NodeServer! Click Store on the navigation bar to see the currently available list. Check back often as the number of cloud enabled NodeServers should increase exponentially.

| Polyglot Cloud | Home | | | | Dashboard | ISYs ▾ | Store | Logout |

Polyglot NodeServer Store

Current NodeServers: 4

Refresh

Name	Version	Author	Language	Description	
PythonTemplate	2.0.3	James Milne (Einstein.42)	python3	My Node Server	Install
Nest2	0.1.8	xKing	python3	Nest products (Thermostats, Cameras, Smoke/CO detectors) control	Install
Ecobee	2.0.2	James Milne (Einstein.42)	python3	Ecobee NodeServer	Install
SolarEdge	0.0.2	xKing	python3	Solar Edge Cloud Integration	Install

Once you have chosen the NodeServer you wish to install, click on the Install button to the right of the entry.

You will be able to verify all the information about what you are installing, and which device you are installing it on. Only available slot numbers will be shown in the select slot number drop down, so you don't have to worry about knowing if they are already in use. Which slot you install to is arbitrary and has no bearing on the functionality. It only limits us to the number of total NodeServers we can have installed. Once you are happy with the selection, hit Confirm to install.

After hitting Confirm, you will be returned to the Dashboard and the following message will be shown:
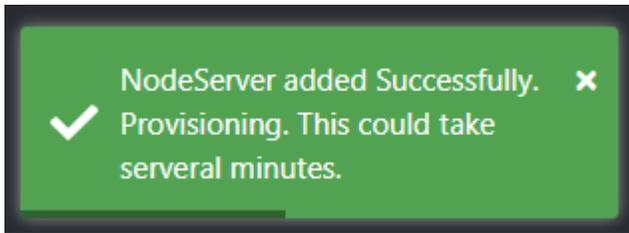
The underlying architecture uses Docker instances to run each NodeServer completely segregated from all other NodeServers. It is not possible for NodeServers to communicate directly to each other. All instances are destroyed as soon as the NodeServer is stopped or uninstalled and new ones stood up from a template. There is never any concern about data leakage or security from an infrastructure perspective. This also limits each NodeServer to a finite and set amount of CPU and RAM resources disallowing one NodeServer with a bug to overwhelm the system.

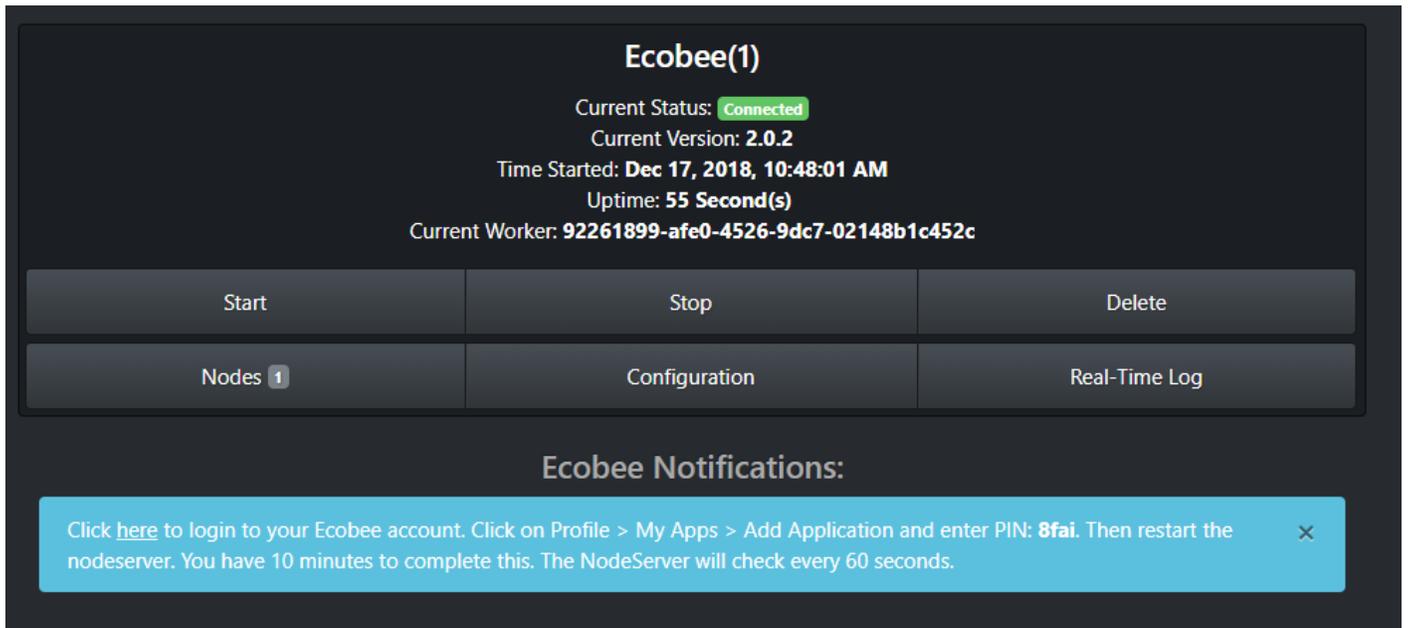Once the provisioning process is complete, you will see the new NodeServer on the dashboard page. You do not need to refresh the page, everything on the Polyglot Cloud interface is in real-time.
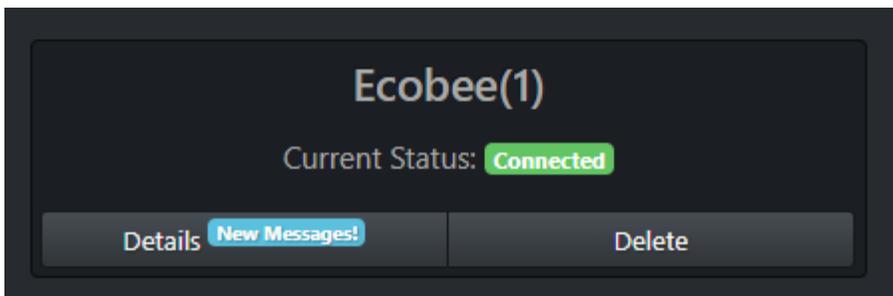
You will see the current status of 'Connected' telling you that the instance has been provisioned correctly and the code of the NodeServer you are running has connected successfully to Polyglot Cloud.

NodeServer Management

Once you have a NodeServer installed, you will likely need to configure credentials of the cloud provider the NodeServer connects to. In the previous step, you see there is a new message from the NodeServer. Clicking on details will allow you to manage the options for the NodeServer. Here is the details page:

In this example, we have installed the Ecobee NodeServer, however it is asking us to configure our Ecobee portal to allow the NodeServer to connect with the Ecobee API's. This will be a similar process for most cloud based NodeServers that connect to another provider. Please see your NodeServers documentation for exact steps on a per NodeServer basis.

Other options on the details screen are:
- Start: Starts a stopped NodeServer.
- Stop: Stops a currently running NodeServer (this destroys the current docker instance, in essence completely flushing all data and redownloading the latest version of the NodeServer, using Stop then Start after a few moments is how you upgrade each NodeServer to the latest available)
- Delete: Deletes the NodeServer from Polyglot Cloud and your ISY
- Configuration: This allows you to configure any NodeServer specific information that is necessary. This is on a per NodeServer basis and will be outlined in its documentation.
- Real-Time Log: This shows you the real-time log of the NodeServer as it runs. Example screenshot on the next page

Delete prompt to make sure:

Remove NodeServer

Are you sure you want to remove Ecobee?

Confirm   Cancel

Real-Time Log example:

Ecobee Log

Scroll to Bottom   Scroll to Top

☑ AutoScroll

12/17/18 10:50:00:452 [NodeServer][INFO] :: Sending customData to Polyglot.
12/17/18 10:50:00:254 [MainThread][INFO] :: PGC Interface 1.0.11 Starting...
12/17/18 10:50:00:452 [NodeServer][INFO] :: Sending notices to Polyglot.
12/17/18 10:50:01:141 [NodeServer][INFO] :: Sending notices to Polyglot.
12/17/18 10:50:01:340 [Interface][DEBUG] :: Recieved Message: config
12/17/18 10:50:01:056 [NodeServer][DEBUG] :: {'ecobeePin': '2gpa', 'code': 'DhCEs8THGGaHfFsZ6YBVuMxD6ymkqSra', 'scope': 'smartWr
12/17/18 10:50:01:840 [Interface][DEBUG] :: Recieved Message: config
12/17/18 10:50:00:452 [NodeServer][INFO] :: check_profile: update_profile=False
12/17/18 10:50:00:445 [Interface][DEBUG] :: Recieved Message: init
12/17/18 10:50:00:452 [NodeServer][INFO] :: Sending customData to Polyglot.
12/17/18 10:50:01:740 [Interface][DEBUG] :: Recieved Message: config
12/17/18 10:50:00:451 [NodeServer][INFO] :: Started Ecobee v2 NodeServer
12/17/18 10:50:00:452 [NodeServer][INFO] :: check_profile: profile_info={'version': '2.0.7'} customData={'profile_info': {'vers
12/17/18 10:50:00:451 [NodeServer][DEBUG] :: {'profile_info': {'version': '2.0.7'}}
12/17/18 10:50:00:735 [Interface][DEBUG] :: Recieved Message: config
12/17/18 10:51:00:447 [Interface][DEBUG] :: Received Message: {'shortPoll': {}}
12/17/18 10:51:01:340 [NodeServer][DEBUG] :: PIN: 2gpa found. Attempting to get tokens...
12/17/18 10:51:01:751 [NodeServer][DEBUG] :: {'error': 'authorization_pending', 'error_description': 'Waiting for user to author
12/17/18 10:51:01:756 [NodeServer][ERROR] :: authorization_pending :: Waiting for user to authorize application.

Upgrading a NodeServer

You will notice with Polyglot Cloud there is no 'upgrade' button like there is for Polyglot on-premise NodeServers. The reason for this is that all running NodeServers are inherently ephemeral. There is no stored data or code between runs of a NodeServer. This means that the latest version of the code is pulled on each and every start of a NodeServer. If you find that you are running an older version, simply stop and start the NodeServer and it will pull the latest available! Easy as that!