BEMOSS and Its Enhanced Applications

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Outline

VOLTTRON

Devices | Data | Decisions

Figure: Source
https://volttron.readthedocs.io/

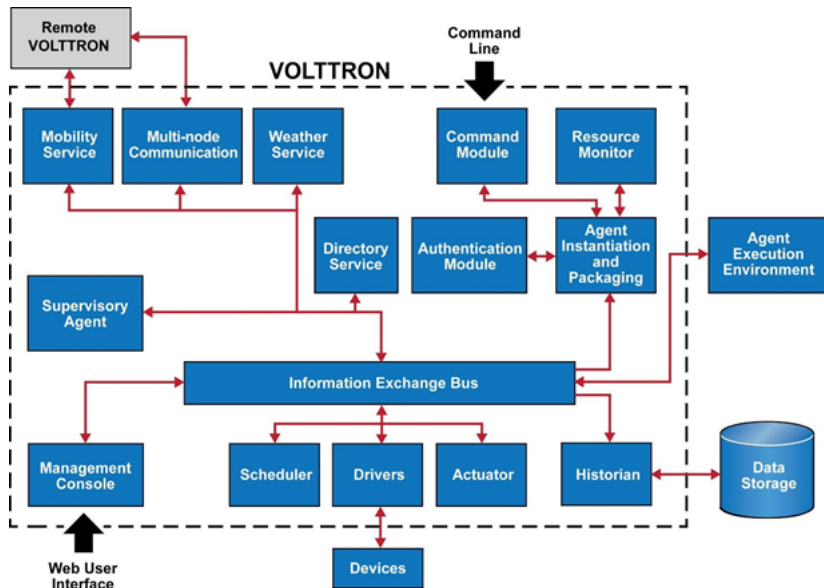## Overview

- Agent-based system for improving energy management
- Improves sensing and control of devices in buildings
- Single point of contact for interfacing with devices (RTUs, building systems, power meters)
- Open source, available on github
- Python 2.7, Linux

VOLTTRON

Motor Interface

Update

- Added identify device behavior to motor
- Python Digi-XBee library instead of python-xbee library
  - Commands to read status of IO pins
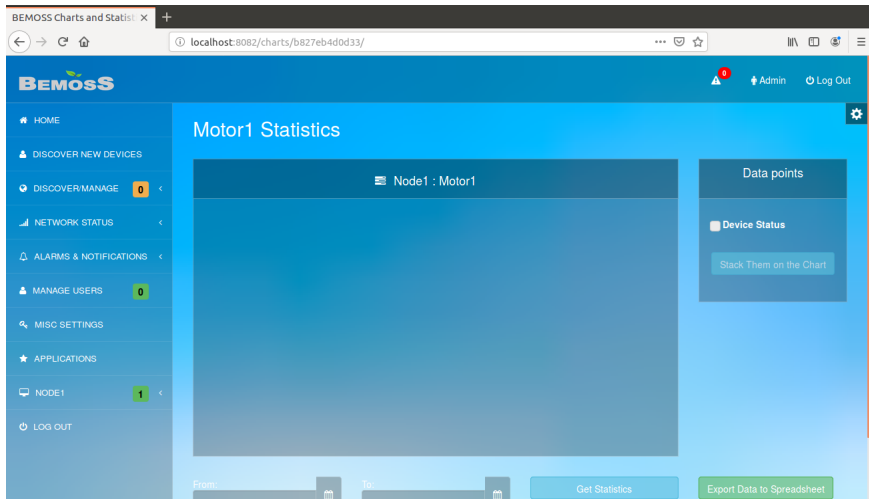 - Send commands to end point XBee specifying remote node identification

Motor Interface

Motor Interface

Problems

- No chart visible
- Motor not properly added to BEMOSS database (PostgreSQL)
    - Required to run `PROJECT_DIR/Web_Server/run/defaultDB.py`

Motor Interface

Bug Fixes

Corrected TSDAgent Error

- Downgraded Python cassandra-driver to version 3.16.0

Plans

Finish motor interface

- Fix database and chart issues
- Implement ssh keys

Begin writing paper

- Motor interface must be fully functional

Develop deep understanding of BEMOSS

- Understand every part of the code base
  - This is required to make further progress
- Completed before August 23

Add new device

- Possibly space heater

Figure: Dyson Pure Hot + Cool Air Purifier Courtesy of
https://www.wantse.com/images/2/o6y516bzd.jpg

For Further Reading I

🌐 VOLTTRON
VOLTTRON Documentation.
https://volttron.readthedocs.io/