



Accredited Energy Services  
Company by  
National Environment Agency

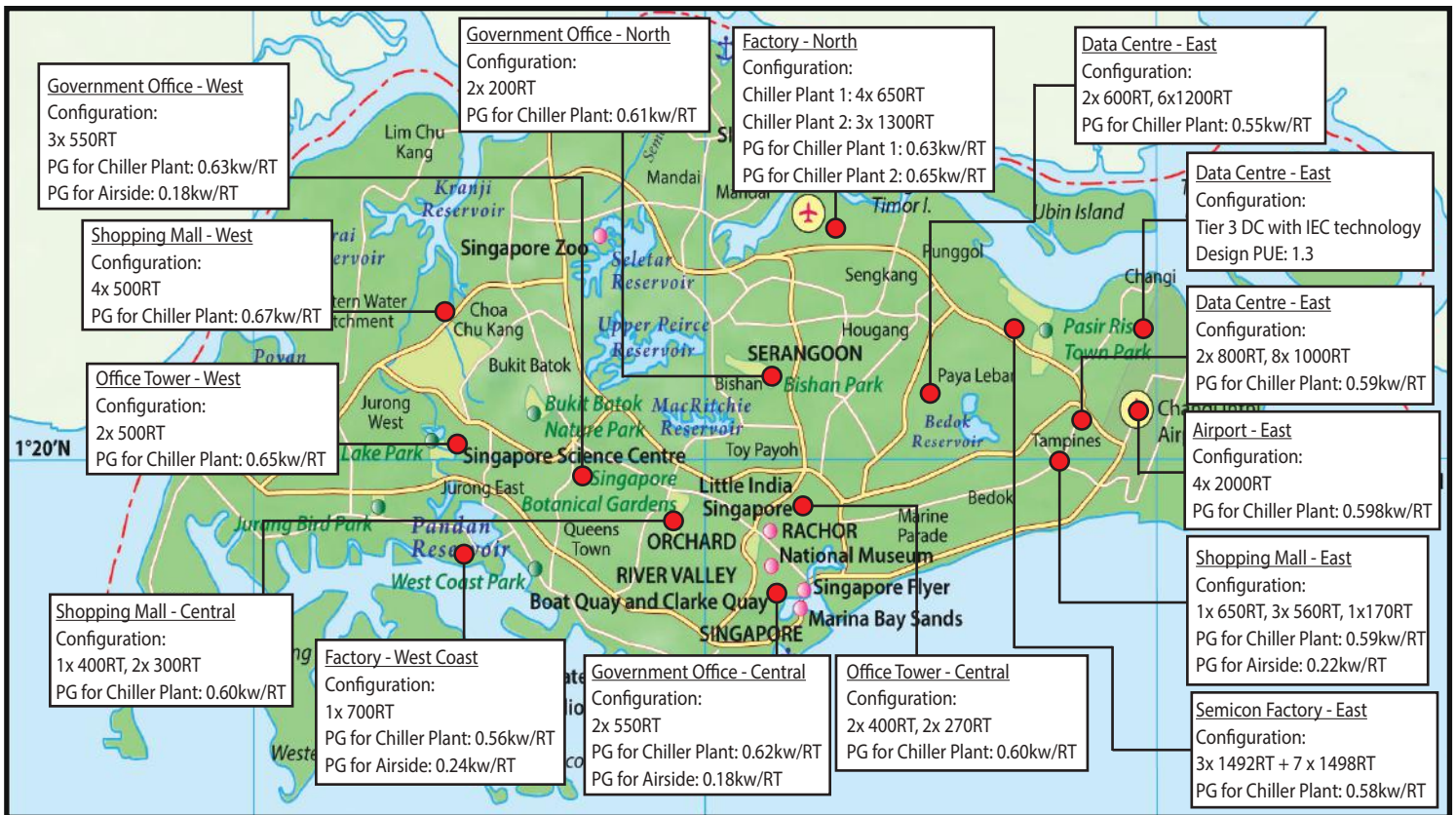


MEASUREMENT & VERIFICATION PTE LTD

## Energy Efficiency Management System (EEMS)

- Improve building comfort and reliability
- Improve facility manpower productivity
- Improve facility energy efficiency

A fully open source & non-proprietary EMS platform with a proven track record *powered by* **niagara** framework®



M&V is managing more than 130,000RT of installed capacity with Performance Guarantee using EEMS



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# EEMS Software features:

1. Fully open source & non-proprietary platform & controllers with effective Energy Saving Functions & Features.
2. Reliable & High speed EMS architecture design with good engineering design and reliable components.
3. Accurate continuous monitoring with high precision
4. sensors

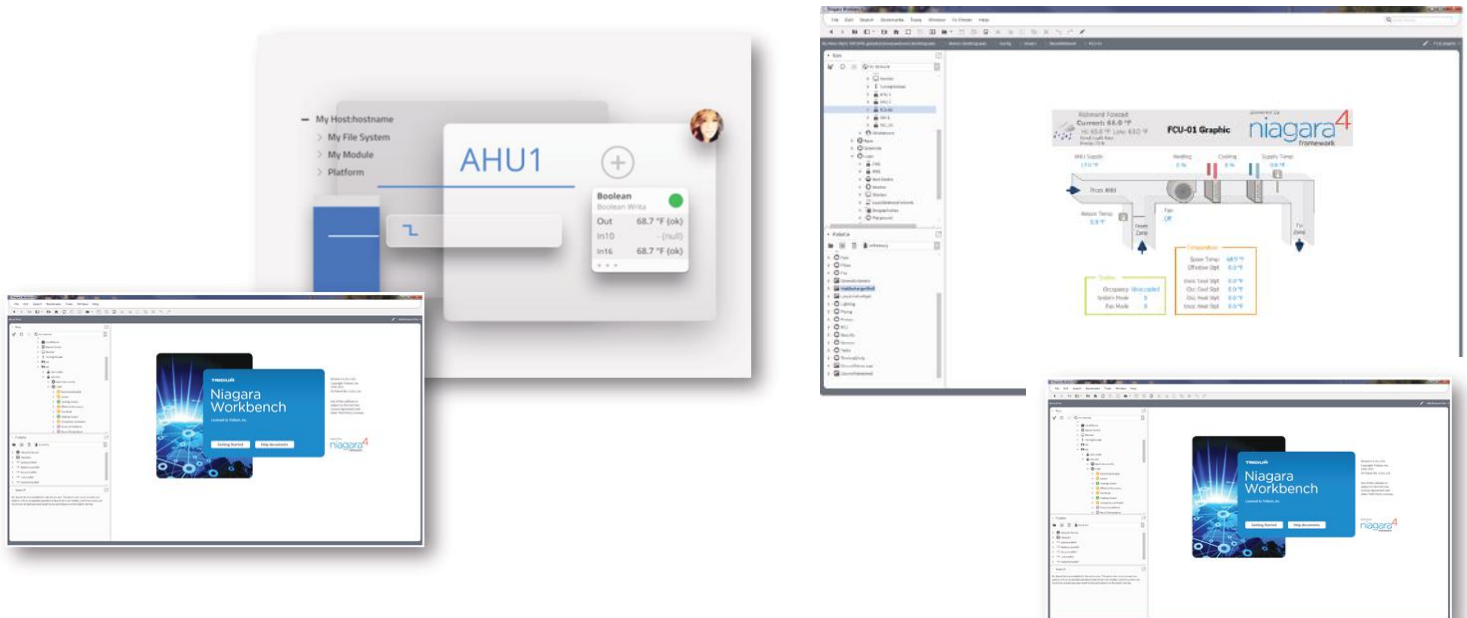
Most practical and user friendly EEMS: Testimony by countless customers.



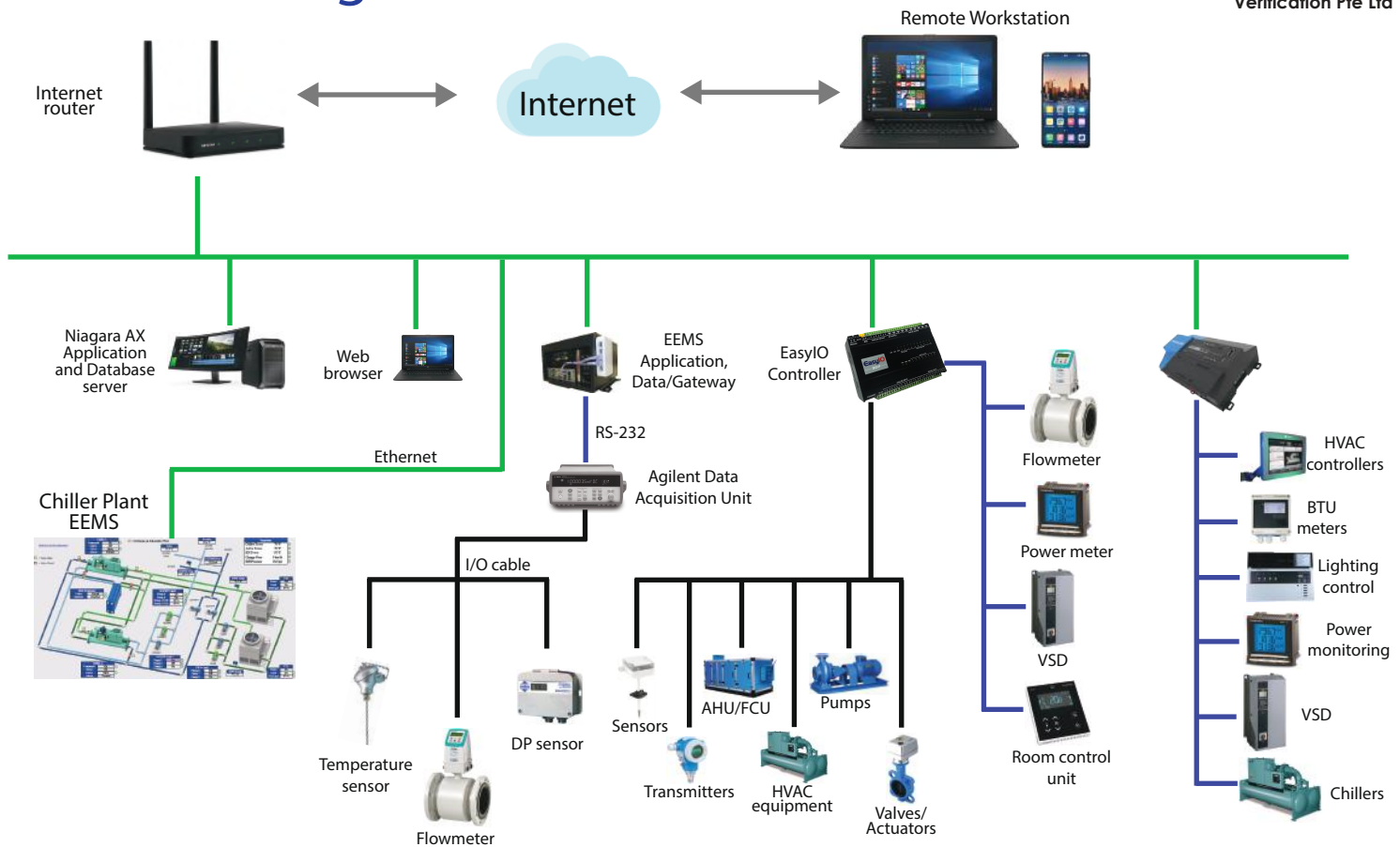
## EEMS Application

### Niagara Framework

1. Less reliant on browser plug-ins, featuring an intuitive HTML5 interface.
2. Connect and share information among heterogeneous devices, legacy systems via open protocols.
3. Easily build custom version
4. Web-enabled applications for accessing, automating and controlling in real-time over the Internet.



# EEMS Configuration:



## EEMS Components:

### JACE 8000 Network Controller

- Integrated control supervision
- Datalogging
- Alarming
- Scheduling & Sequencing
- Network management

### Direct Digital Controller (DDC)

- Rugged, network centric, high performance controller with Open source Sedona platform
- Support multi concurrent protocols
- Web friendly tools to enable 3rd Party Tools
- Individual/local area programming and control

# EEMS Software Graphical User Interface

- Online monitoring, Control and Analysis through Internet using standard web browser (IE, Chrome) and mobile devices.
- Intuitive and user friendly interface (Point & Click interface)
- Collect data from data acquisition system that use high accuracy sensors and Precision Data Acquisition System (End-to-end temperature accuracy +/-0.05deg C)
- Automatic Data logging and archiving (in 1-minute interval resolution) for several years.
- Translate large quantities data into usable information and graphs.
- Historical Data Access & Analysis via four types of graph (Time series, XY, XBar/RBar, Psycometric)
- Scheduling
- Automatic Optimization control feature (e.g. Cooling tower optimized according to wet bulb temperature)
- Powerful control programming facilities can handle very complicated control logic.
- Set-point changes and Control Logic Sequencing.
- Latching to last value on control equipment's failure (e.g. power trip)
- Alarm on screen, via SMS & email. Alarm acknowledged by local terminal, SMS or web.
- Alarm and event log

