CASE STUDY

Integration / Energy & Asset Management
Chiller Integration in 77 Buildings - Etisalathe
United Arab Emirates

NETIX.AI
THE SMART MOVE

The Client

Our client's digital business unit is driving digital transformation by enabling enterprises and governments to become smarter through the use of the latest technologies like Cloud, Cyber Security, Internet of Things (IoT), Omnichannel, Artificial Intelligence, and Big Data & Analytics. Their digital unit brings together the best industry digital experts, assets and platforms with a unique service and operating model.

The Project

The chillers in 77 buildings have been integrated for the purpose of energy & asset management in the Middle East region - The United Arab Emirates and are inclusive of more than twenty thousand IO Points.

The Challenge

The end-user was managing multiple assets all over U.A.E; they looked for a system that could integrate all the chillers into a single software platform which, upon integration, provides more analytical information about the chillers and supports them to operate and maintain the chillers more effectively and efficiently.
Our client was looking for a solution to integrate into multiple vendor chillers and push the chiller data to their analytical platform in a unified protocol format in real time.
The end-user contacted Netix.ai with this challenge, and we proposed that NETIX.ai advance intelligent controls to be used along with the client's Digital platform.

The Solution

Keeping the challenge in mind of our client, we designed and provided a solution to the customer. Our team gathered 77 buildings information, inclusive of the type of chillers (air cooled, water cooled, absorption type), chiller manufacturer and model. Worked on a solution where we designed an intelligent controller to extract parameters from chillers, irrespective of any manufacturer model. Discovered the parameters, mapped and exposed the data in a unified BACnet protocol format. Fine tuned the controller in such a way that the parameters discovered, reaches the client's software platform cloud in real time. Exposed the parameters to our client's cloud and made sure to get the confirmation from their subject matter expert, that all the parameters are being received properly. Confirmed the change of COV (change of values) happening in real time. The system was successfully handed over after the complete system validation was done which included Design Qualification (DQ), Installation Qualification (IQ) and Operational Qualification (OQ).

The Scope

- Integration of different manufacturer chiller units across U.A.E and connecting to client's Digital ---platform.
- Supply, Installation and T&C of NEO, I/O Module and the Router. Discovering and maping the chiller points and pushing the data to the client's Digital platform via --- 4G network as BACnet.
- Completed system validation:
    -Design qualification (DQ)
    -Installation qualification (IQ)
    -Operational qualification (OQ)

System Controlled / Monitored

Carrier chillers integrated via CCN protocol, Trane, SKM, and York chillers integrated via modbus protocol. Finally, all the chillers are connected to the Control Command Center - CCC via BACnet protocol.

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Few lines about NETIX.AI system

We have done multiple integration projects with NETIX.AI – integrated building management system and the experience gives us the confidence that NETIX.AI has a truly open platform that is very flexible for customizations and at the same time is very robust with regards to performance.NETIX.AI have a deep understanding and sensitivity that is needed for critical integration projects, their excellent commissioning skills, commitment towards quality have impressed us.

Network Diagram