



A Building Clouds Solution

Transformation of a Single Tenant Building into a Harmonious Multi-Tenant Experience

A Building Divided – Giving Multiple Tenants Individual Access to a Hybrid Energy Management System

The property owner for a single story industrial building in Santa Clara, CA needed the ability to subdivide their facility. Walls, doors, carpet, paint, even mechanical systems were no problem. The building energy management system (BMS) however was a different matter.



With a tight budget, the ability to add another control system was not an option. To further complicate the issue, the existing control system's hardware was obsolete and the software/on premise BMS PC was missing and not replaceable. Additionally, a single electrical meter served the facility causing uncertainty over how to bill each tenant individually for their energy usage.

Building Clouds' knew that all of these issues could be solved and at a price that fit into the owner's budget. By employing a hosted Opendiem server, a LonWorks network to tie in new rooftop equipment, and a software driver to communicate with the existing control system, the hybrid system was on-line. The Opendiem software took over from there with logical separation of equipment and invoking security rules which kept users in the appropriate sections of the system. LonWorks enabled E-mon D-mon power monitors were put into place to track each tenant's electrical usage.

Authorized users are now able to monitor and control equipment in their space from an internet-connected web browser from anywhere in the world. Energy usage is tracked by the server, reports are generated and sent to the Property Management Company for reconciliation against the Utility bill, and then invoices are sent to the appropriate tenants.

System Components

- Opendiem EMS Software by **Building Clouds**
- Control Systems Integration by **Energy ETC**
- System Hosting & Help Desk by **Energy ETC**
- Power Monitoring by **E-mon D-mon**
- LonWorks Controllers by **Building Clouds**
- CSI/TAC Software Driver by **Building Clouds**
- HVAC Systems by **Carrier, Trane**
- IP to BMS Interfaces by **Moxa, Loytec**