

CONFIDENTIAL CLIENT


AMHERST, NY | USA

NEW ENTERPRISE DATA CENTER



 Commissioning
& Qualification


 Building
Commissioning

 Asset Management
& Reliability

 Quality, Compliance,
& Regulatory

 Human
Performance

 Process &
Manufacturing Technology

 Program & Project
Management

 Automation &
Information Technology

 The Chemistry of Full-
Scale Operations™

 Data
Centers

WHEN YOU NEED TO MEET A HIGHER STANDARD™

PROJECT OVERVIEW

This project included a greenfield building with multiple stories. The data center occupies the first floor. It is a raised-floor design occupying 21,000 square feet. The facility is a 325kW data center with MDF design for 650kW comparable to a Tier III design.

OBJECTIVE

The objective included building and commissioning a new enterprise data center within the assigned project schedule.

SERVICES PROVIDED

- Installation Verifications – conducted field inspections to verify all construction activities complied with project specifications and drawings
- Pre-Functional Checks (PFC) – all vendor startup testing was either directly observed or documentation was reviewed for accuracy and completeness
- Functional Performance Tests (FPT) – for all electrical and mechanical equipment, including: development of equipment specific test scripts, testing execution, and test process management
- Integrated Systems Tests (IST) – for all electrical and mechanical equipment
- Infrared Thermography (IRT) scans were performed by a vendor and reviewed by the Commissioning Agent
- Initiated and tracked all project commissioning issues to resolution
- Performed final turnover of all systems including: verification of all construction documentation, vendor O&M manuals, commissioning test reports, description of operation documents, and training manuals
- Warranty period testing – conducted a site visit and evaluation at the ten month point to ensure continued, correct operation of all systems prior to the end of the warranty period

EQUIPMENT


- One enterprise data center room with associated infrastructure
- Main distribution frame
- Two self-contained, diesel-powered backup generators
- Utility substation switchgear and transfer switches
- Medium and low voltage switchboards
- Automatic transfer switches


CONFIDENTIAL CLIENT

AMHERST, NY | USA


NEW ENTERPRISE DATA CENTER




 Commissioning
& Qualification


 Building
Commissioning

 Asset Management
& Reliability

 Quality, Compliance,
& Regulatory

 Human
Performance

 Process &
Manufacturing Technology

 Program & Project
Management

 Automation &
Information Technology

 The Chemistry of Full-
Scale Operations™

 Data
Centers

WHEN YOU NEED TO MEET A HIGHER STANDARD™

EQUIPMENT (CONTINUED)

- Uninterruptable Power Sources (UPS) – battery backup
- Electrical protective relaying system
- Emergency lighting system
- Building Automation System (BAS)
- Computer Room Air Conditioning (CRAC)
- Indoor air conditioning units
- Energy Recovery Units (ERU)
- Pre-action fire systems
- Site generator fuel supply, fuel system polisher, and monitoring systems

PROJECT SUCCESS

All commissioning was conducted allowing the Client to populate all data racks as scheduled. Many FPTs were coordinated with the vendor's PFCs reducing overall testing time while still ensuring thorough system testing and expediting the final delivery of the data center to the Owner.