

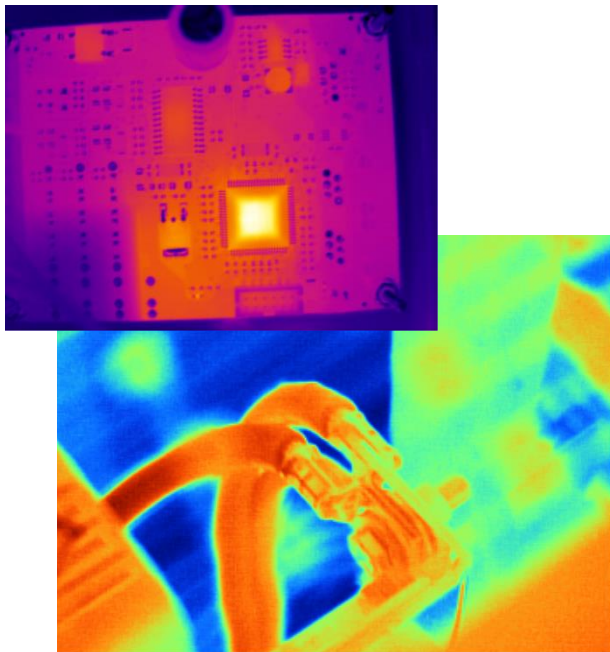
A Case Study in Proactive Critical Facility Operations Support

By
Panoptic Solutions LLC



*Intelligence
Ability
Diligence*

Panoptic Solutions was originally contracted to perform planned maintenance on the electrical distribution systems in data center rooms for a major hosted services provider who was dissatisfied with their 4 previous testing companies. During our initial inspection, we demonstrated that initial commissioning had not been performed as per the customer's specification and had missed a number of potentially operationally impactful issues. These issues included; circuits terminated at the wrong rack locations, monitoring system not monitoring designated circuits, and improper (loose) termination of electrical circuits. Panoptic Solutions even helped to resolve manufacturer defects, included amongst those issues identified, at the manufacturers cost. Following this initial performance, Panoptic Solutions was subcontracted for the commissioning of all future electrical buildouts, for that customers' suites and all remaining suites installed at that facility.

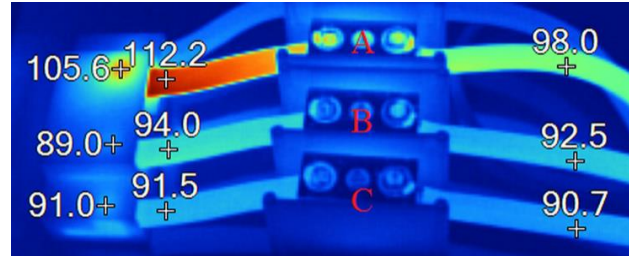


Panoptic Solutions went on to work directly with the hosted service provider to develop and execute a custom maintenance program for the electrical distribution and monitoring hardware in 12 rooms (1 facility comprised of 12 data suites covering 750,000 sqft). This program included multiple types of field distribution cabinets, bus rail distribution systems, serial to IP data converters, temperature and humidity detectors, and routine maintenance/health inspection of their monitoring system workstation. In addition to this maintenance program, we provided end device programming and developed a troubleshooting procedure for customer personnel to troubleshoot monitoring communication issues internally.



This custom maintenance program was then expanded to cover a facility in another region of the country with 3 rooms, covering another 300,000 sqft. Multiple operationally impactful issues were identified due to manufacturer defects, installation errors and miscalculations in capacity planning. Panoptic Solutions not only identified these issues, but supported the planning and execution of their resolution without any end user impact.

In the span of a few years we went from providing subcontracted commissioning services to being a full partner in the development and execution of a custom maintenance program which encompasses more than 4,000 discrete devices in over 1,000,000 sqft of data suites at multiple locations across the United States.



| | PHASE | A FEED EXTERNAL |
|--|-------|-----------------|
| Bus Tap Box 1: Customer Defined maximum amperage: 90 Amps | A | 114.5 |
| | B | 107.0 |
| | C | 106.1 |
| | N | 0.2 |
| | G | 1.3 |

Panoptic Solutions is now developing an equipment pre-commissioning program to support the continued improvement of our customers’ critical infrastructure as they grow. This program is intended to prevent the introduction of equipment with a high chance of failure from ever being installed in critical facilities. This protects the integrity of critical systems and shifts the cost burden associated with manufacturer defects back to manufacturers by rejecting equipment while it is still in warranty and before it impacts customer service. It also reduces the overall cost of facility ownership by reducing critical systems maintenance and all the issues associated with it.

Through our commitment to Intelligence, Ability and Diligence we have helped develop and execute a top tier critical facility maintenance program, the “per unit” cost of which we have reduced every year. We continue to strive to provide the benefits of that program at reduced cost and with reduced operational impact to all of our customers.

When you look for critical facility support services, don’t get buffaloed!

