



How a single customized business application can centralize commissioning services for data centers

CASE STUDY

Date:
July, 2019

All workflows and processes mirrored into one single application.

The Client

CAI are a central component in the process of designing, constructing, and maintaining mission critical data center facilities. With engineering, technical, and consulting services that encompass all aspects of commissioning operations, CAI support customers to integrate people, processes, equipment, systems, and facilities into high-performing, low risk operations

The Challenge

The business of commissioning a data center goes well beyond ensuring processes, systems or expansions meet the owner's requirements. In fact, the [American Society of Heating, Refrigerating and Air-Conditioning Engineers \(ASHRAE\)](#) asserts that the focus of data center commissioning is "verifying and documenting that the facility and all of its systems and assemblies are planned, designed, installed, tested, operated and maintained to meet the needs of the owner."

To successfully commission a data center, CAI agents work through an exhaustive list of tasks for their clients and are involved every step of the way, from pre-design, design, construction and ongoing maintenance. Previously, these tasks were being completed using multiple Excel worksheets and siloed databases. There was no central process, no scalability options and certainly no way to accurately collect, track and store data for the entire process.



INDUSTRY

Commissioning Operations/
Technical Consulting Services



LOCATION

North America



EMPLOYEES

440



CHALLENGE

There was no central process, no scalability options and no way to accurately collect, track and store data.



SOLUTION

All workflows, processes and tasks involved in commissioning a data center were mirrored into one single application.



RESULT

Reduced errors, improved communication, real-time accuracy, and automation.

The Solution

Using CAI Tech software, we created an application that centralized all workflows, processes and tasks involved in commissioning a data center. We designed customized features that allowed for:

- ✓ Centralized data collecting, storing and analyzing
- ✓ Consistent issue/task resolution logging, tracking resolving
- ✓ Transparent and real-time documentation tracking, reviewing and approval workflows
- ✓ Increased control on forecasting
- ✓ Decreased overall risks

Let's review two examples

#1 Improved commissioning of data center equipment:

This part of the overall list of data center commissioning tasks is a mission critical priority. Not only does the equipment represent a major capital investment for the data center owner, but failure or problems associated with data center equipment leads to a drop in overall operating efficiency levels and an increased risk of costly downtime. With the average cost per minute of unplanned downtime, according to ITPro Today, at \$7,900, it was vital, therefore, that CAI agents were able to increase the control and decrease the risk of problems associated with this part of the process. After evaluating where the current risks lay, we used CAI Tech software to build in features that enabled:

- ✓ Accurate tracking of all equipment to be commissioned
- ✓ Immediate overviews of current commissioning status
- ✓ Historical data (dates of last update, name of test engineer etc.)
- ✓ Forecasting of any project or equipment delay expectations
- ✓ Issue and tasking tracking
- ✓ Testing Status – completion percentage, status of documentation etc.

#2 Faster & more accurate daily reporting:

Reporting is a fundamental part of many workflows, whether they are a simple sequence of work activities, or (as in the case of the end-client) a complicated collection of processes that take place in parallel. Reporting automation is vital for competitive business. It demonstrably leads to overall effectivity and cost savings.

Prior to using CAI Tech software, the process of amalgamating all the information and data from several sources into one single daily report for the client would take at least 60-90 minutes to complete. Furthermore, it was prone to both human error and inaccurate data (thanks to the multiple spreadsheets and siloed data platforms/ programs that fed into it). After using CAI Tech software, CAI agents reported that the same task now took just 10 minutes to complete.



The Result

It is interesting to note that this the application that was designed using CAI Tech software was not built by a professional developer, in fact it was built by a [Citizen Developer](#) using our proprietary [low-code/no-code](#) platform. Using existing business process knowledge, coupled with the capability of CAI Tech software, this person was able to connect the dots and build an application that improved the overall competitive advantage of the company. That is the power of CAI Tech: transforming overbearing and highly manual workflows and information management processes into simplified centralized applications that eliminate inefficiencies, unnecessary complexities and, in this case, even the number of hours that some agents were working overtime to complete their tasks.

Our client reported the following critical **immediate** benefits:

- ✓ **Reduced errors** – up to 75% less post-delivery rework issues reported
- ✓ **Improved communication** – more than 6 x faster to deliver daily reports to end-client
- ✓ **Real-time accuracy** – up to 75% more accurate equipment tracking
- ✓ **Automation, automation, automation** – from issue & task tracking, daily reports, real-time communications, intuitive dashboards, documentation management and more, this app has it all when it comes to state-of-the-art commissioning agent software.