



THE CHALLENGE OF TRADITIONAL COMMISSIONING

How Structured Field Data Enabled
67% Cost Reduction & Better Outcomes
Across **1,000+** Retail Locations



THE CHALLENGE

A top-10 U.S. financial institution operates thousands of retail branches across 48 states. Over a four-year modernization program covering approximately 1,000 locations, the customer deployed connected lighting, HVAC controls, power monitoring, leak detection, and environmental sensors.

As the rollout scaled to approximately 200 branches annually, the traditional deployment model had room for improvement. Nationwide branch modernization programs typically rely on specialized commissioning agents traveling site-to-site to validate installations, configure systems, and complete closeout documentation. When executed at portfolio scale, this approach requires coordinated travel, structured documentation, and consistent field data capture to ensure installation quality and commissioning accuracy.

The Cost of Traditional Commissioning

On-site commissioning typically requires multiple days per branch and averages approximately \$10,000 per location, including labor, travel, and scheduling overhead. At 200 branches annually, this results in recurring multi-million-dollar expenses. Travel coordination can limit commissioning capacity and introduce scheduling constraints across simultaneous nationwide projects.



Quality challenges compound the issue. Commissioning agents may arrive to find installations incomplete or improperly documented, sometimes resulting in return visits and avoidable travel expense. Wiring and configuration errors are frequently discovered late, sometimes after multiple devices have already been installed incorrectly. Commissioning often becomes a bottleneck at project closeout, when timelines and budget constraints are highest.

Although deployed systems often support remote configuration, commissioning depends on accurate field data, including MAC addresses, network settings, physical device locations, and control zone assignments. Traditional documentation methods, such as handwritten notes, marked-up drawings, emails, and texts, are frequently fragmented and inconsistent. Without structured, real-time data capture, remote commissioning at portfolio scale is not feasible.

The customer required a scalable model that would reduce costs, improve installation consistency, eliminate wasted site visits, and remove commissioning from the project's critical path across its national portfolio.

Commissioning Labor



Project Management Fee



Hotel



Airfare



Per Diem



THE SOLUTION

GLAR (GreenLight Asset Registry) addressed the root cause: the gap between design intent and field reality.

Rather than treating documentation as a closeout task, GLAR embedded device data capture directly into the installation workflow.

Designed specifically for field contractors, the mobile platform allowed installers to preload equipment data from design documents, scan device barcodes and QR codes, enter MAC addresses, confirm physical locations, and photograph installations.

Documentation time dropped to seconds per device compared to traditional manual documentation processes. Because the workflow aligned with field practices, adoption remained strong across contractor segments and geographies.

With structured data captured during installation, commissioning agents began work as devices came online. Commissioning shifted from a sequential, end-of-project activity to a parallel workflow. Connectivity was validated in real time, controls were configured remotely, and integrations were tested immediately.

Incorporating the use of GLAR increased commissioning productivity by more than **50%**.



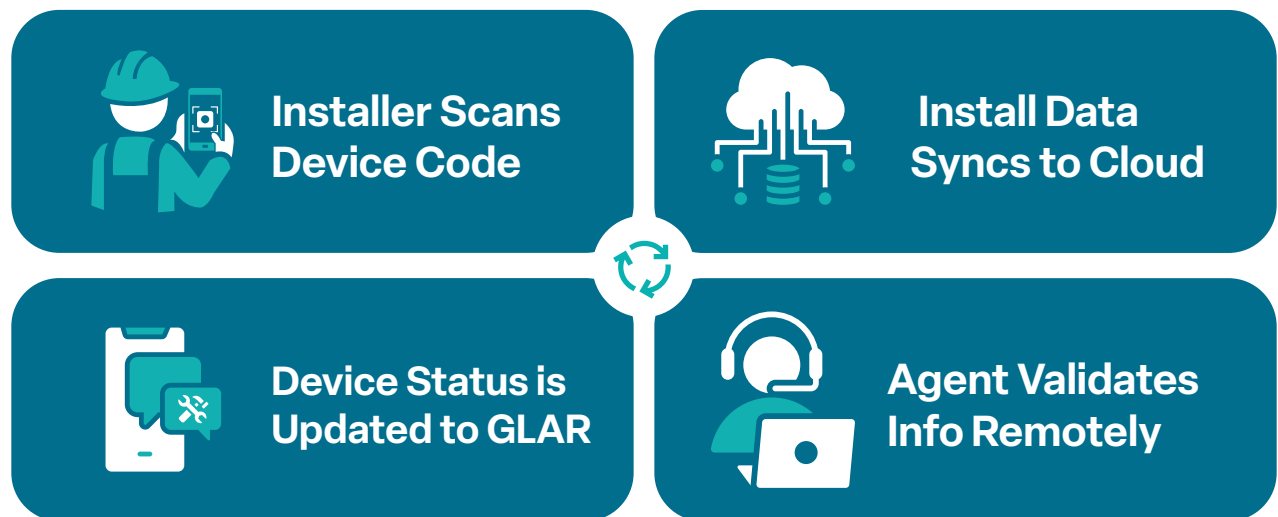
When issues arose, agents created punch list items within the platform, complete with photos and detailed instructions. Errors were identified early in the installation process, preventing systemic rework and reducing unnecessary site revisits.

THE PROCESS

Standardized documentation across every branch ensured consistent capture of part numbers, warranty information, MAC addresses, network configurations, physical device locations, and control zone assignments.

Program managers gained portfolio-wide visibility into installation quality and commissioning progress. General contractors could verify installation milestones to support payment documentation.

Structured field data enabled remote commissioning to function as a repeatable operating model at national scale.



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A Word From Our Partner

Standardizing device tracking and documentation across every branch gave us a level of visibility we simply didn't have before. Instead of waiting until the end of a project to understand what was installed and how it was configured, we had structured, real-time data from the field as work progressed. That transparency improved accountability across contractors, reduced uncertainty during closeout, and allowed our commissioning teams to work in parallel with installation.

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THE RESULTS



67% Cost Reduction

Traditional commissioning averaged approximately \$10,000 per branch. The remote model reduced costs to approximately \$3,300 per branch, saving \$6,700 per site.

At 200 branches annually, this equates to \$1.34 million in annual savings and more than \$5.3 million over four years. These figures exclude avoided rework, eliminated false startups, and related operational efficiencies.

Importantly, cost reduction was achieved alongside improved documentation consistency and installation oversight.



Commissioning Removed from the Critical Path

Traditionally, on-site commissioning occurred at project closeout and often became a bottleneck that delayed turnover.

With remote commissioning enabled through structured field data, installation and commissioning ran in parallel. Commissioning travel availability no longer dictated site schedules, improving closeout timelines and reducing project friction across the portfolio.



Expanded Scope Within the Same Framework

Following validation of the remote commissioning model, the customer expanded the program scope to include whole-branch connected control coverage across all spaces while leveraging the same remote commissioning workflow.

Complex HVAC integrations, including Tridium, were incorporated into the standard process. **LEED** certification support was added without requiring separate documentation efforts. Integration into managed network infrastructure reduced reliance on cellular modems while improving cybersecurity alignment.



85% First-Attempt Remote Success Rate

Approximately 85% of devices were successfully commissioned remotely on the first attempt. The remaining 15% were resolved through structured punch list workflows, typically without requiring additional site visits.

Each branch averaged approximately 30 punch list items, all resolved through the platform. Early identification reduced widespread installation errors and minimized costly rework.



Complete, Standardized Documentation Delivered

Every branch received consistent, structured documentation created during installation rather than reconstructed at closeout.

This documentation supports operational handoff, facility maintenance, asset lifecycle tracking, warranty validation, and future system upgrades.

The documentation framework established during commissioning continues to support long-term portfolio management.

KEY TAKEAWAYS

This program illustrates how embedding structured device data capture directly into installation workflows enabled remote commissioning at national scale. The following points summarize how structured field data supported cost predictability, installation quality, and program flexibility across the portfolio.



Structured field data capture enabled remote commissioning at portfolio scale



67% cost reduction enabled expansion to more sites within budget



Documentation created during commissioning supports ongoing facility operations



Scope expansion (whole-building coverage, HVAC integration, LEED certification) achieved while maintaining cost advantages

CONCLUSION

This program demonstrates that structured field data capture enables remote commissioning at portfolio scale.

By embedding documentation directly into installation workflows and centralizing device-level data within a digital asset registry, the customer established a scalable commissioning framework across a geographically distributed portfolio.

Commissioning became an integrated, data-driven workflow rather than a site-dependent closeout activity, supporting predictable cost, consistent documentation, and expanded program capabilities across 1,000+ locations.