L&T Technology Services

A rollout isn't finished when the site is built.

It's finished when the customer signs.



CASE STUDY

CLIENT
Tier-1 global network equipment OEM with a large network-deployment business

DOMAIN
Network rollout and field operations engineering

LTTS ROLE
End-to-end product engineering: design, build, data migration, test, deployment, support

SCALE
8 years on the field system; 3 years on the customer portal; multiple geographies and projects

EXECUTIVE SUMMARY

LTTS engineered the digital thread across the whole span of a network rollout: a web and mobile **Activity Management System** for construction and installation progress, a portfolio of site-supervision tools the client later **migrated into its own deployment platform,** and a **customer portal for close-out package acceptance.**

THE CHALLENGE

The client needed real-time visibility of field operations, with site data joined to its own inventory and ERP systems. The alternative was what it already had: manual tracking on paper and spreadsheets, re-keyed later, verified by sending a manager to the site.

Downstream, the acceptance step was worse. Close-out packages are the evidence bundle that proves a site is complete; they were being exchanged with customers over an **FTP server.** That is the artifact the customer signs, and the signature is what releases revenue.

The requirement was one continuous chain from field capture to customer acceptance, flexible enough to match each customer's and each subcontractor's way of working.

ENGINEERING COMPLEXITY

Four things made this harder than workflow software.

01

The work happens where the systems aren't.
Network rollout is executed by third-party crews: typically one construction company for sites and a different one for fiber. A site survey needs a physical visit. The system of record has to be fed by people who do not work for you.

02

Acceptance is where the money is.
The close-out package is not paperwork; it is the evidence that gates payment. Industry practice is explicit that validating acceptance reports triggers invoicing and payment to vendors. Carrier contracts enforce delivery of the package against a milestone invoice, with liquidated damages for lateness.

03

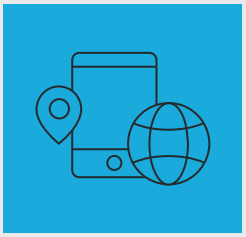
There is no standard for what a close-out package contains.
Every carrier defines its own: as-built drawings, RF and fiber test results, commissioning data, GPS coordinates, antenna azimuth and downtilt, serial-numbered photographs. Practitioners state plainly that no cross-carrier standard exists. The portal had to accommodate per-customer definitions, not impose one format.

04

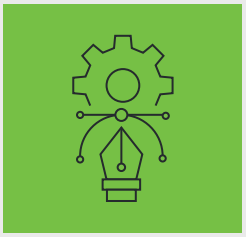
The volume is rising, not steady.
5G raises deployment activity per unit area; the GSMA notes that 5G mmWave needs more transmitters to cover the same area as lower-frequency networks. The Small Cell Forum forecasts 61 million cumulative small-cell shipments by 2030. A tool built only for 4G volumes ages out.

WHAT LTTS ENGINEERED

One digital thread, engineered in three connected parts.



Field capture. A web and mobile system for scheduling and tracking construction and installation work, with progress captured at the site on a phone rather than re-keyed from paper later. Workflows run to each customer's and each vendor's rules, and site data flows into the client's own inventory and ERP systems.



Tools rationalization. A portfolio of site supervision tools, built independently on the Salesforce Platform and on proper enterprise patterns rather than point configuration. A common adaptation layer means a new customer extends the framework instead of forking the tool. The client then migrated the whole portfolio into its own deployment platform, in three controlled stages.



Acceptance. The client's own customers log in, review the close-out deliverables and give acceptance. Approval reports straight back to the field tool, so site status and customer decision never diverge. File exchange over FTP goes away.

THE FEAT · ONE CONTINUOUS CHAIN

From a technician's phone at a tower to the customer signature that releases revenue: auditable end to end, built to each customer's own definition of complete, deployed across multiple geographies, and trusted enough that the client migrated it into its own platform.

BUSINESS OUTCOMES

Outcome	What changed	Why it is credible
Process automation	80% of the activity workflow	Mobile field capture replaced paper and spreadsheet reporting. Progress data arrives from site in near real time rather than being transcribed after the fact.
Productivity	30% improvement; less manager travel to site	Integrated dashboards and event notifications put current status in front of managers, so corrective action happened during the activity. GPS-stamped progress made a physical trip unnecessary just to confirm status.
Revenue cycle	FTP file exchange to portal workflow	The close-out package is the evidence that gates payment. Moving acceptance into a workflow, with approval routed back to the field tool, removes the slowest and least traceable step.
Issue turnaround	Faster resolution of customer-reported issues	Portal, field tool and site tool are integrated, so an issue reaches its activity and its evidence without reconciliation across systems.
Client adoption	Tools migrated into the client's own platform, in 3 stages	The strongest signal of engineering trust available: work built by LTTS became part of the client's standard toolset.
Continuity and footprint	8 years on the field system; 3 years on the portal, multiple geographies and projects	A small, stable team of four engineers on the field system, carrying deep domain knowledge rather than rotating through it. An extensible workflow and a common adaptation layer are what let one system serve different customers and subcontractors.

ENGINEERING INTELLIGENCE IN ACTION

1. **We engineered the chain, not just the app.** An app developer could have built the mobile form. A systems integrator could have connected the ERP. Neither, alone, produces an auditable chain from field capture to customer acceptance.

2. **Built to each carrier's definition of complete.** No cross-carrier standard exists for close-out packages, so the portal accommodates per-customer definitions instead of imposing one. That is why it serves more than one customer.

3. **The client adopted it as its own.** Tools built by LTTS were migrated into the client's standard platform in three stages, and the engagement is now in its eighth year on the field system.

This collateral includes AI-enhanced imagery

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ENGINEERING THE CHANGE

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