

EXECUTIVE SUMMARY

In 2001, an international telecommunications company approached Operational Technologies (OpTech) regarding concerns over quality issues they were experiencing with their current supplier in the production of Local Exchange Terminals (LETs). OpTech was asked to rework existing LETs from the previous supplier and assume new assembly of several LET models to their clients. In addition, the client also required a Value Added Reseller (VAR) to supply their clients with 200+ expansion links, CPUs, expansion bank controllers, associated proprietary control software packages, and replacement channel units. Today OpTech continues to supply the customer with 2 versions of LETs which are critical within their rural applications network.

PROJECT SCOPE

The customer's overall needs broke down into 3 phases: Phase 1 - Rework existing LETs for quality issues and a few new specifications upgrades on certain models, Phase 2 - Continuation of building new models of LETs to supply the market, and Phase 3 - Being a VAR for approximately 200+ Control "cards" for the LETs being sold. To carry out these phases, OpTech took one of its facilities and rebuilt the storage and production area to meet the OEM's specifications and run rates required.

FACILITIES DESIGN PROJECT:

OpTech took an available warehouse and designed, built, and staffed a production facility capable of meeting the demand that the client needed to continue a steady flow of LETs to their end users. The required run rates and the associated man-hours required per assembly process were calculated and designed to build an assembly line process that could be expanded or contracted to meet the end client's demands. The entire warehouse was temperature and humidity controlled. The facility had to be inspected and signed off by the OEM before any work could be performed.

STAFFING:

OpTech sent several engineers to train in California on the assembly and configuration of the different types of LETs. OpTech developed work instructions on each step of the process which was approved by the customer to certify each employee. At the start-up each of them had to produce five LETs with no defects to be certified to be able to work on the assemblies. Strict handling procedures were also developed and implanted in the repackaging of the Control cards.

Our trained staffing handled and shipped 250 - 2,000 Control cards and associated software on a daily basis.

LOGISTICS:

Transportation of the LETs and plug in units were also mandated and selected by the end user. OpTech was committed and achieved 100% of on-time delivery expectations when the client adhered to the agreed upon schedule and provided all equipment and supplies by due dates.



CHALLENGE #1 – CONTINUOUS IMPROVEMENT OF THE PROCESSES

OpTech continued to improve the capacity and capability of our production facility providing LETs to the customer, through process improvements and certifications such as ISO9001, TL9000, and Six Sigma. Work instructions were developed and over time redesigned through process improving measures and creative thinking. OpTech had never built this particular type of telecommunications terminal before so there was a very short learning curve that it had to overcome. However, through training, its quality programs, and commitment to excellence, OpTech was able to consistently deliver quality products and services and meet the high demand and turnaround times for the LETs.

CHALLENGE #2 – HIGH DEMAND REQUIREMENTS

The demand for the LETs grew and OpTech had to strategize and design a method that would significantly reduce the production time of 22 hours to build just 1 LET. OpTech configured a design of pre-assembly components built in stages that reduced the production time from 22 hours to 14 hours. Production cycles improved at the same time that our quality performance remained at a high level.

OUTCOME

During the past 14+ years, OpTech’s performance remains exceptionally high because our “customer first” attitude and continuous improvement corporate-wide philosophy has worked.

Phase 1 was completed within the first year of the project, and Phase 3 has slowly diminished due to the abundance of Control cards in the market. OpTech continues its first class partnership and continues Phase 2 to build the Local Exchange Terminals. Our quality acceptance rate during this partnership with our client has been a highly coveted 99.998%. In 2014 OpTech achieved 98% on time delivery.

In summary, over a 14+ year period and over 1,650 LETs built there was only 1 return due to quality issues.

