

Network Security Market Leader Transforms Global Labs

Velocity Automation Portfolio

Customer Challenge

A market leader in enterprise security solutions received the Exceptional Support Service award from J.D. Power and TSIA for the world-class 24/7 support they deliver to their customers. While customer service was outstanding, lab-related OpEx and CapEx costs were unsustainably high and growing.

Given the excessive cost structure, they identified lab automation as a prime opportunity to cut costs since the lab was in a constant state of flux. To replicate customer-specific environments devices, cabling and configurations had to be changed constantly. In fact, each year, they needed to set up over 8,500 different configurations. And because each configuration is manually intensive and with no effective way to share resources, engineers hoarded equipment just in case they needed it. In addition, management had inadequate visibility into the usage patterns and true utilization of the equipment.

The support organization concluded that the best way to sustain their excellent service while also minimizing expenses was to transform their global labs into a lab automation platform.

Solution Requirements

Keysight experts worked closely with the customer to develop a customized solution to federate and transform five global labs into a lab automation platform that met the following requirements:

- Reduce lab equipment set-up and tear-down time to maximize user efficiency.
- Avoid equipment hoarding. Create a system whereby engineers can get what they need, when they need it, with assured availability.
- Minimize OpEx costs and time required to resolve conflicts over lab resource usage and help make the proper priority decisions to maximize customer satisfaction.
- Provide metrics on equipment availability, usage, and conflict occurrences to minimize overall CapEx.
- As the company grew and new, more complex products were developed, regression testing became more and more important to product delivery. The lack of test automation became a significant drag.

Highlights

- Leading network security solutions provider had excellent customer support, but associated lab OpEx and CapEx were unsustainable and increasing
- Keysight Velocity Automation Portfolio enabled providers to converge five labs into a single automated global 24/7 operation
- 400+ engineers worldwide can now access entire resource inventory
- Provider achieved dramatic financial savings over 24 months:
 - OpEx reduced by \$5.2M
 - CapEx reduced by \$2.8M



The Solution

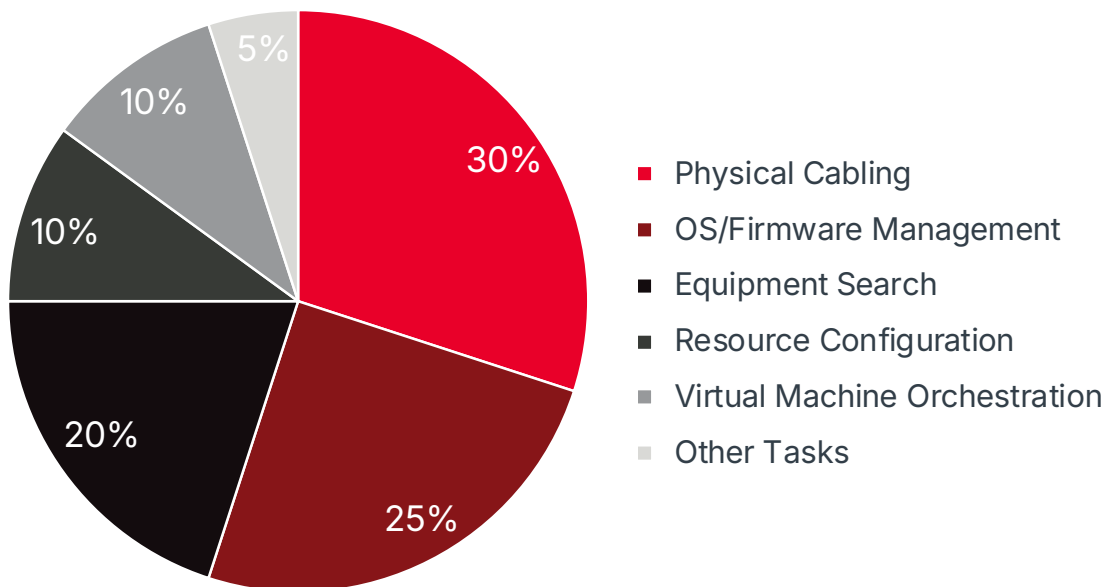
Keysight Velocity Automation Portfolio met all the customer's objectives by providing a full lab automation platform that includes the following key features:

- **Conflict resolution:** In order to optimize for top-tier customers, environments and devices can easily be redirected from lower priority tasks.
- **Administrative roll-back policy enforcement:** Administrators ensure all devices automatically roll back to their original known-good state without intervention after reservations conclude.
- **Automated configuration management:** Custom device configurations and firmware builds can be automatically laid down at reservation start to save engineers even more time.
- **Maximize resource utilization with device abstraction:** Velocity Core automatically selects devices based on engineer requested attributes. For example, an environment requires a router with 2x 100G ports and Velocity selects the best option based on availability and location (to ensure least-cost connectivity).
- **Manual cabling with automated work orders:** When manual cabling is required to complete a link, Velocity Core creates a ticket, issues complete instructions to lab techs, and automatically indicates readiness for reservation when complete.
- **Customized dashboards to track usage trends:** Monitor all important activities including device utilization, user activity, environment usage, testing results, etc.

Solution Benefit

The simple remote command interface of the PNT GSS7000 makes automation easy, while the high-power output and support for high-speed motion enables the customer to test more complex and space-specific scenarios. Most importantly, the high-end receiver used on the space vehicles was able to consistently track the high-fidelity signals generated, enabling the acceleration of product development and the meeting of customer deadlines. Equally important was the proven nature of the technology and the speed with which Keysight was able to deliver.

This customer's engineers were able to achieve a time savings of 349 hours per week (a 32% reduction).



By working with the Keysight team, we were able to transform five global labs into a fully automated lab operation in less than six months, while achieving significant annual OpEx savings.

Furthermore, Keysight Velocity Core now provides us with optimized workflows for responding to time-critical and high-priority support cases, while minimizing CapEx.

—Manager, Lab Infrastructure and Operations

Keysight enables innovators to push the boundaries of engineering by quickly solving design, emulation, and test challenges to create the best product experiences. Start your innovation journey at www.keysight.com.



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