TestShell
Lab Infrastructure
Management

QualiSystems

TECHNICAL SYSTEMS INTEGRATORS

The Lab Infrastructure-Management Challenge

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Difficult to share equipment

Only 15% utilization of costly infrastructure

Duplicated labs

Long setup time leads to productivity loss

Inefficient remote user access
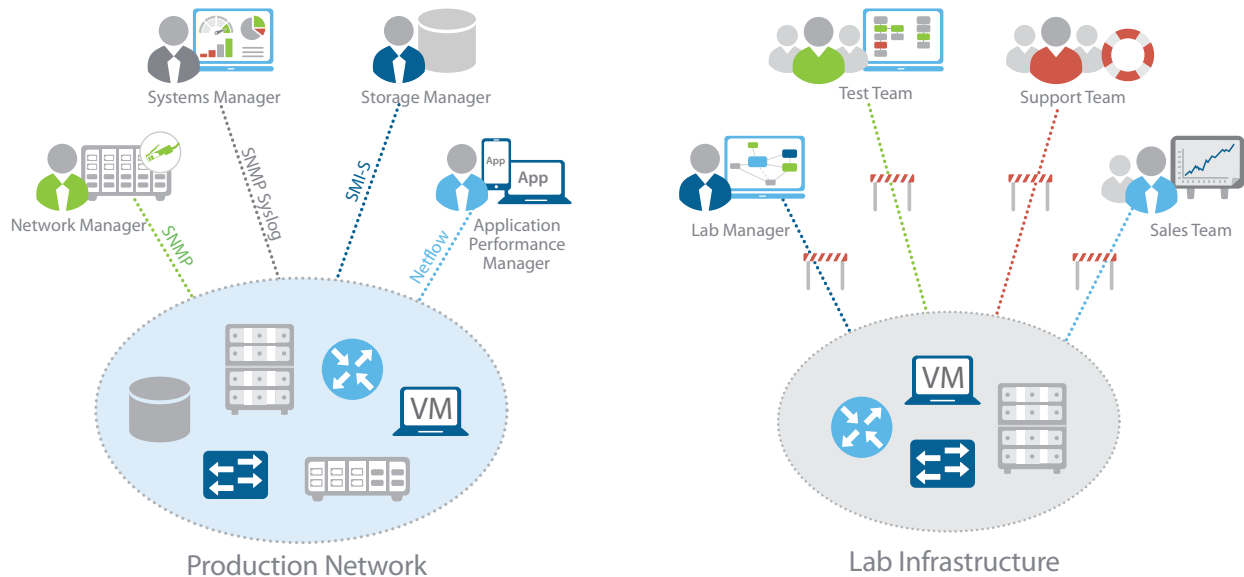
Increasing CAPEX

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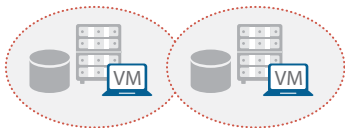
Traditional Management Tools Don't Help Manage the Lab Environment

Traditional infrastructure management tools are focused on production system, storage, and network monitoring using protocols such as SNMP, SMI-S, and Netflow. These tools don't address the test lab infrastructure operational processes.

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Systems Manager

Storage Manager

Network Manager

SNMP Syslog

SMI-S

SNMP

Netflow

App
App

Application
Performance
Manager

Production Network

Test Team

Support Team

Lab Manager

Sales Team

Lab Infrastructure

VM

VM

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TestShell Test Lab Infrastructure Management Software

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QualiSystems offers the industry's leading test lab management software. TestShell manages the entire test lab Infrastructure, including inventory and lab-wide connectivity, topology design, resource scheduling, and reporting. SNMP and other traditional management software only monitors devices, while TestShell manages the entire lifecycle of test lab infrastructure usage, promoting efficiency and productivity.
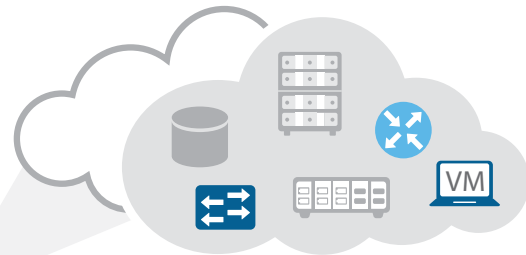
Test Topology Design

TestShell provides an integrated topology design tool to reduce set-up time and speed testing.

Resource Scheduling

TestShell reserves and schedules shared infrastructure such as topologies to increase device utilization.

Inventory & Connectivity

TestShell manages all test lab infrastructure in a live inventory, including lab connectivity

(direct cabling, patch panels, & L1/L2 switches)

Reporting

TestShell helps managers track test lab resource utilization through powerful reports to ensure productivity.

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Compelling CAPEX ROI

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Without TestShell

	Current	+1 year	+2 years
Lab Capital	$10M	$12M	$14.4M
Device Utilization	15%	15%	15%
Equipment purchased	+20%	+20%	+20%
Annual Capex	$2M	$2M	$2.4M
Depreciation Cost *5 Year Basis*	$2M	$2.4M	$2.84M

With TestShell

TestShell	Current	+1 year	+2 years
Lab Capital	$10M	$11M	$12.1M
Device Utilization	15%	25%	30%
Equipment purchased	+20%	+10%	+10%
Annual Capex	$2M	$1M	$1.1M
Depreciation Cost *5 Year Basis*	$2M	$2.2M	$2.44M

License Model

TestShell Server (1)	Optional HA Server (1)	Concurrent Reservations (N)
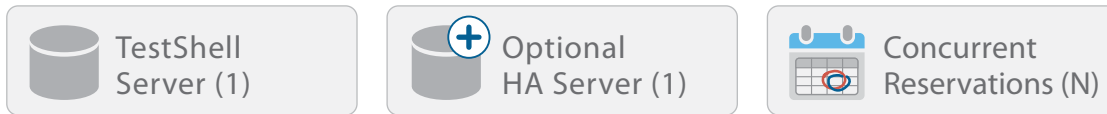
How to Calculate Concurrent Reservations

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Multi-Reservation User

Single-Reservation User

Automation User

12	13	14

N = 4 concurrent reservations

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Optional Add-Ons

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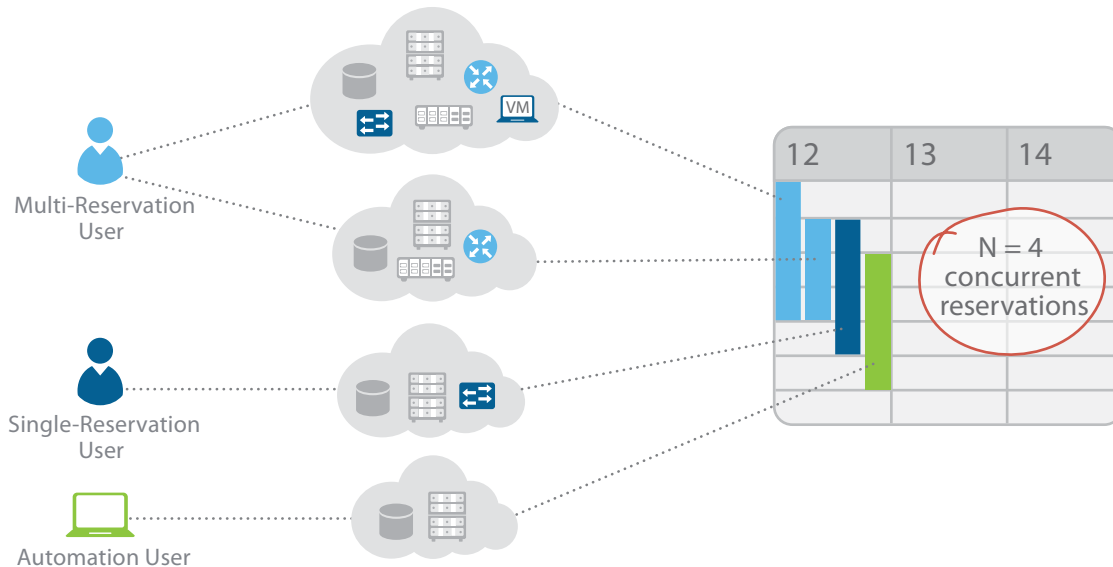
Automated Device Provisioning

➜ Embedded integration with lab resources
- **Control interfaces** *Telnet, SSH, Web Services, Serial*
- **GUI** *Windows, Java, Web*
- **Scripts** *TCL, Perl, Python, PowerShell*
- **Leading testing vendors** *xia, Spirent, Shenick, MRV, ONPATH*
- **Custom drivers** *NET, Exe, LabVIEW, ActiveX*
- **Third Party Apps** *NMAP, iPerf, MSBA, WireShark*

➜ Customize your own provisioning
- No need to program
- Quick and standard reuse
- Simple graphical flowchart
- Easy device response analysis

➜ Examples
- Automatic discovery
- Validate setup
- Nightly maintenance run

Full Test Automation

➜ Quick test creation by Engineers
- Flowchart-based test scenario editor Intuitive parallelism
- Quick and standard reuse

➜ Distributed Execution and Scheduling
- Central control over test runs across multiple stations
- Remote launch through a time-based scheduler
- Integration with Management apps *HP QC, IBM RQM, SVN*
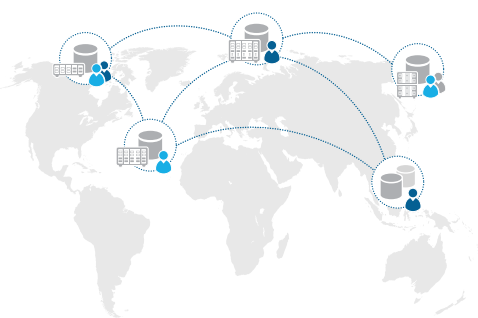
Online Reporting and Analysis

➜ Centralized results server
- Powerful query builder for customized reports
- Real-time dashboard display

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Case Study Examples

Leading Global Storage Manufacturer

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Consolidated multiple labs into **single, global test lab**

Enabled global teams to **share costly test equipment**

✓ Eliminated wasteful equipment duplication, including multiple **$1M storage arrays**

✓ **Immediate payback** from repurposing costly equipment

✓ Further ROI from **productivity gains, power savings,** etc

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Case Study Examples
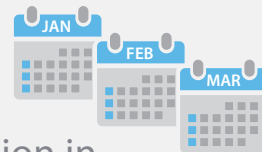
Global Top 3 Computer Manufacturer

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Reduced Test Lab
Setup Time by

98%

From 1 day to 30 minutes

Achieved
Complete
Lab Automation in

3 Months

Delivered
**High
Customer
Satisfaction**

Eliminated Dedicated
Per-Class Infrastructure

**$Millions
Saved**

A Leading Network Technology Manufacturer
says about TestShell:

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"
With TestShell we can

create a more efficient, virtualized lab environment that supports multi-site collaboration; track and schedule resources, and optimize resource utilization with 24/7 management and control.

We've already increased our testing capacity in just a few months and we expect to significantly improve even further.
"

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About QualiSystems and TSI

QualiSystems is the leading provider of IT self-service, test lab and test automation solutions to enterprise, service providers, and technology vendors.

TSI is a 26 year old engineering software and services company providing innovative test and lab management solutions. TSI offers QualiSystems' test automation and device provisioning framework along with point tools for TDM, VOIP, and Wireless simulation and analysis. Our customers are in the telecom, datacom, DoD, and energy markets where device inter-operability, network quality, and cyber security (including NERC CIP compliance) are everyday requirements for doing business.

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To learn more about how TSI and QualiSystems can help with your lab, cloud, or test automation environment check out our website at:
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or contact us at:

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