

Accelerating Learning with Training Environments Delivered-as-a-Service

KEY BENEFITS

Delivering custom training experiences rapidly at cloudscale to enrich the learning experience

More Agility

Automate the deployment of even the most complex infrastructure configurations in seconds and scale automatically.

Lesser Cost

Optimize the utilization of dedicated equipment, federate labs and data centers, and maximize capital and operating cost efficiencies.

Higher Reliability and Reuse

Model training environments once and ensure their quick redeployment to the same state time and time again

More Effective Test & Training

Turn your training centers into self-service clouds. Provision complex training environments faster. Automate the bring-up of real-world, threat environments for running advanced training like "red team / blue team" cyber exercises.

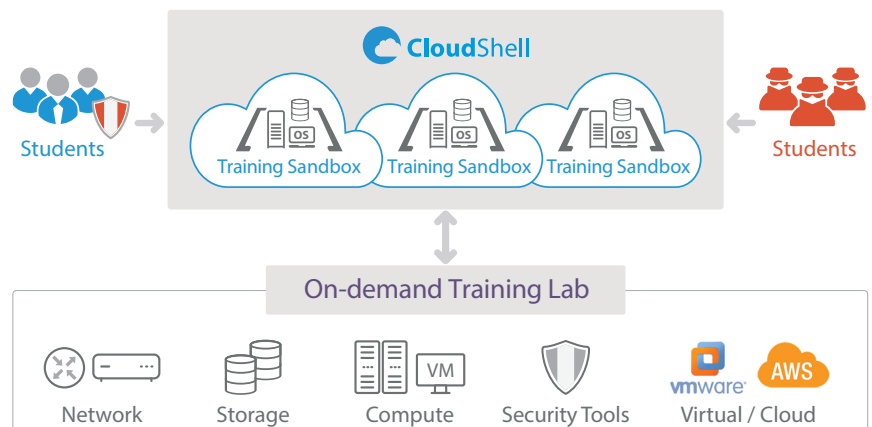
The Need for Agile and Cost-Effective Training Environments

Technology vendors and system integrators all face the need to conduct effective training for enabling their sales and field teams. However the training effectiveness is hampered by the following:

- **High Complexity**—Due to the sophisticated nature of today's technological environments, this can be complex. For example, IT production environments today consist of many components such as switches, servers, firewalls, specialist test gear, virtual resources, APIs, etc. Furthermore, cloud and edge dependencies can increase complexity.
- **High Cost**—Prototyping authentic training environments can be exorbitant due to physical resource hogging, increased complexity, VM sprawl, and administrative burden of managing environments including tear-down in a timely manner.
- **Lack of Automation**—prevents rapid provisioning of environments and scaling of infrastructure to meet training use case scenarios.

A Comprehensive Self-Service Training Solution

Quali's CloudShell automation and orchestration platform allows companies to rapidly provision and deliver environments-as-a-service. It makes it easy to manage the entire lifecycle of modeling, deploying, monitoring and reclaiming sandbox environments. Training administrators can device blueprints that represent real-world environments and publish these into self-service catalogs for easy retrieval, on-demand. This allows training environments to be quickly set up, customized even and made available to large pools of trainees to experience in an authentic manner. Training labs for a variety of technologies including infrastructure (physical or virtual), cloud, applications, security and more can be built-up on the fly and torn down equally quickly conserving resources and costs.



Key Features

Full Stack Training Environments

Automates the deployment and configuration of all the infrastructure components necessary to replicate any training scenarios—from physical networking, storage, servers, and test equipment to virtual resources, cloud components, tools, and applications. Model and provision complex L1, L2, and L3 networking as well.

Self-Service, On-Demand, Multi-Tenant

Publishing training environments for on-demand deployment by field team students. A single tool for managing and automating multiple sites allows federating and consolidating training labs and data centers.

Rapid Blueprint Modeling

You can quickly and easily model complex training infrastructure blueprints. Drag and drop physical, virtual, cloud, and app components onto a visual canvas; easily model network configurations and quickly set custom attributes and configurations.

Rich Orchestration

Manages the entire lifecycle of training sandboxes with orchestration that supports automated setup, provisioning, teardown, monitoring, and scaling. Snapshots and restores environments to known states for reproducing classroom scenarios. Provides custom orchestration commands for specific use-cases that are relevant to the workflow of the organization.

Live, Interactive Environments

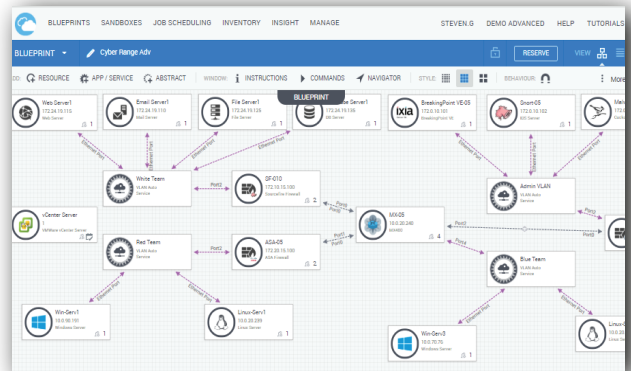
Gives users SSH and RDP access to resources directly from within live cloud sandboxes; live graphs and charting provide compelling visual feedback; custom instructions and guided tours have a faster onboarding of users.

Resource Optimization

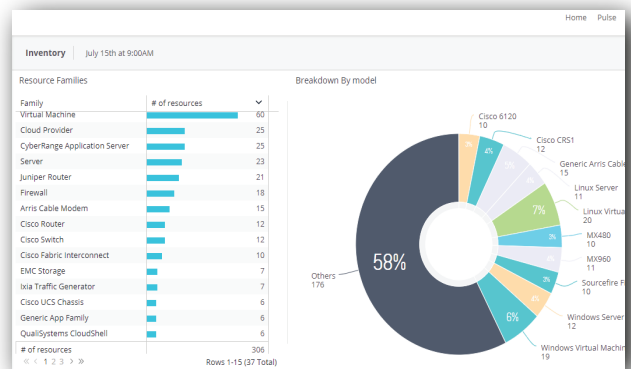
Optimizes training infrastructure utilization through intelligent resource sharing, management of resource contention, scheduling, and automated control of physical layer connectivity (L1 and L2 Switching).

Reporting and Analytics

Provides visibility into environment and infrastructure usage for predictable spend and resource planning. Ties analytics to automation data for valuable insights into training class behaviors and trends.



Full stack, real-world training infrastructure environments.



Rich reporting and analytics for resource planning and student behavior analysis.

Customer Snapshot

Defense Information Systems Agency

Using Quali, the Defense Information Systems Agency (DISA) I was able to date their cyber range data centers into a private cloud to drive significant cost savings and efficiencies.

“DISA is responsible for supporting a critical element of our national defense strategy, which is the sharing of information between joint war fighters, national leaders, and other mission and coalition partners; this fast, simple, and cost-effective solution provides us with the ability to fulfill our mission without sacrificing performance or security”

DISA Cyber Security Range
Chief Architect