



# TestShell Solutions for Cloud Assessment



## Ensuring the Performance of Hybrid Cloud Environments

Like with many other complex network topologies, ensuring the performance of private, public and hybrid clouds requires thorough validation testing. Manual testing and homegrown approaches cannot match the complex requirements of private and hybrid cloud resource delivery.

### Cloud Assessment Challenge

- Cloud service resources may be customized for different clients or applications
- Performance must take into account differing network connectivity when delivering cloud infrastructure services to different endpoints
- Testing requires an integrated approach that includes provisioning of policy and performance optimization network elements such as firewalls, load balancers and WAN optimization devices
- Different end-user applications may require different testing regimens, especially when migrating application tiers to cloud data centers
- Real-time reporting is a necessity to validate performance, particularly during operations' pre-deployment processes
- Development, QA, and pre-deployment operations personnel need to be able to easily bring up the exact same service topology to ensure that their processes are in sync
- Efficient reclamation of cloud resources that are deployed for testing purposes is needed to maximize costly asset utilization

### TestShell Cloud-Assessment Automation Solution

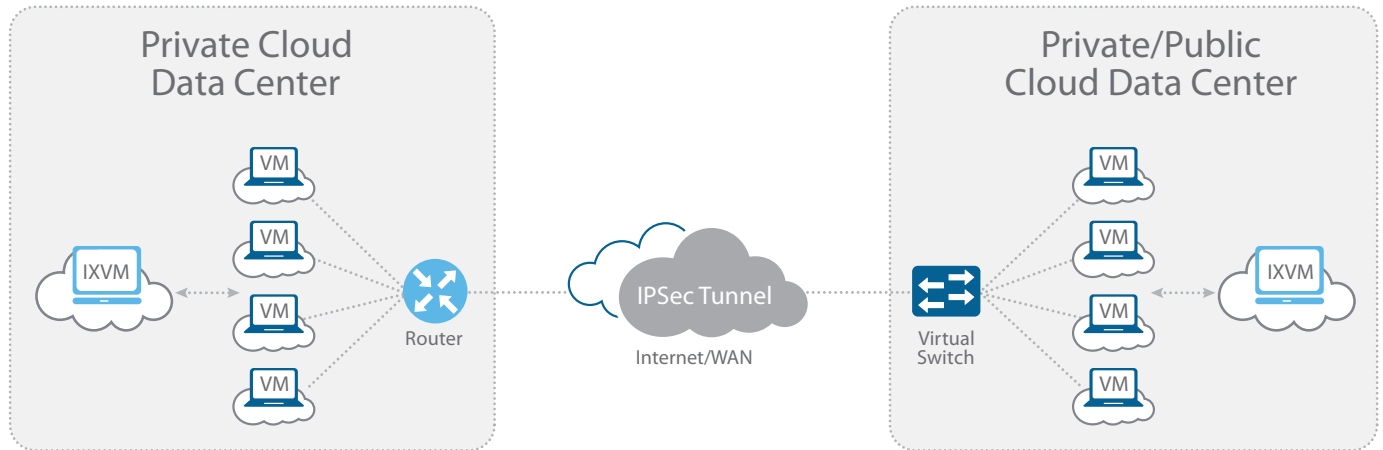
TestShell provides a holistic approach for cloud testing that enables developers, QA and operations engineers to easily define, automate and test cloud service topologies.

### Cloud Infrastructure Management

As cloud services are prototyped and tested in data center environments, TestShell helps engineers efficiently share costly resources:

- Centralized and highly scalable live inventory management of all physical, virtual and cloud resources
- Quick search and location of resources by user-defined parameter tags
- Calendar-based reservation and scheduling
- Resource utilization reporting
- Cloud-like resource and automation access for remote testing teams





## Powerful Automation Workflow Creation

TestShell makes it easy to capture complex cloud resource deployment processes in a repeatable workflow. These workflows include automated functionality, policy and performance tests that can feed reporting processes. Now engineers, testers and operations personnel can quickly deploy and validate the exact same service topologies:

- Shared object library with building-block objects that capture and maintain easy to use device driver controls, provisioning actions and testing tasks
- Non-programmer friendly automation creation using a drag-and-drop flowchart-based automation design tool with a range of workflow logic options
- Data extraction and parsing capabilities (XML parsing, matrix filtering, RegEx and more)
- Built-in data tracking, monitoring and debugging

## Vendor-Agnostic Control of Any Cloud Resource

Automation workflows integrate quick, user-friendly control of physical and virtual resources through a huge variety of interfaces, including:

- Control interfaces (Telnet, SSH, Web Services, Serial)
- GUI (Windows, Java, Web) with object awareness

- API scripting (TCL, Perl, Python)
- TestShell control libraries of leading lab infrastructure and test equipment (Traffic Generators, L1 Switches, Analyzers)
- Vendor and custom drivers (.NET, Exe, ActiveX)
- Management applications (HP QC, IBM RQM)

## Powerful Reporting and Analysis

- Test data is extracted and organized in a centralized data warehouse, allowing fast and simple data mining and analytical processing
- Powerful reporting capabilities enable engineers to easily generate data queries using preprepared flattened and optimized data tables
- Statistical analysis matrices, data -tagging and enhanced search features simplify analysis of even the most complex traffic statistics
- Real-time configurable dashboard display of test and management data



To learn more about TestShell, visit our website:

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