

# Performance Testing: Desktop Apps

## Performance Testing

### Client Challenges

The client experienced slow loading times on their desktop application, affecting operational efficiency. Gigs-Tech Testing was engaged to evaluate the issue and provide a solution. To address the performance bottlenecks, a comprehensive performance pack was designed and implemented.

### Background

The desktop application, primarily used by college staff, was accessed through Remote Desktop Services (RDS), also known as Terminal Services, hosted on a session host server. Once logged into the RDS session, users could access and manage the Student Records System through the desktop application.

### Process

Gigs-Tech Testing conducted a Tool Feasibility Study and Proof of Concept (POC) to identify the most suitable tool for simulating desktop application scenarios. Micro Focus LoadRunner was chosen as it provided advanced capabilities that open-source tools like JMeter could not deliver for these specific use cases.

#### Challenges Encountered

- ▶ **Complexity of Recording Actions:** Initial protocols (Web HTTP/HTML, Citrix) failed to capture RDS and desktop app interactions.
- ▶ **Access and Security Issues:** Firewalls, RDP security settings, and OS compatibility caused delays in setup.
- ▶ **Script Customization:** Handling pop-ups and discrepancies between VuGen and controller scripts required extensive adjustments.

#### Solutions Implemented

- ▶ **Environment Setup:** Streamlined configurations and resolved security challenges to enable efficient testing.
- ▶ **Script Optimization:** Customized scripts to ensure accurate capture and reliable execution of test scenarios.
- ▶ **Alternative Approaches:** Addressed discrepancies with controller-related scripting issues, ensuring consistent results.

#### Results Achieved

- ▶ **Seamless Execution:** Scripts ran flawlessly, handling multiple users as expected.
- ▶ **Bottleneck Identification and Resolution:** Key performance issues in the RDS hosts and desktop application were addressed effectively.
- ▶ **Reliable Framework:** Delivered a robust LoadRunner framework capable of handling the application's operational demands efficiently.

### Conclusion

Through comprehensive testing and optimization, Gigs-Tech Testing successfully enhanced the performance of the desktop application, ensuring smooth functionality and reliability. The solutions implemented addressed the client's critical challenges, enabling improved operational efficiency and scalability.