

# SeleniumBox

Enterprise Selenium Grid inside your firewall | managed | scalable

## The Enterprise Continuous Testing Cloud INSIDE your network

The security and performance of deployment behind your firewall  
paired with the convenience of SaaS solutions

Selenium Box is built for enterprises with high security, scalability and  
performance needs. It is fully managed and helps organizations to simplify their  
Selenium and Appium infrastructure for cross browser and mobile tests.



## How is Selenium Box different?

Selenium Box is not an external SaaS service. It operates 100% inside your corporate network and firewall.

No data goes to the outside and no external access is required.

## Why Selenium Box?

Security and data privacy are highly critical for enterprises, especially for financial and healthcare organizations. Using SaaS services for cross browser and mobile testing requires you to send data to the SaaS provider and to grant the SaaS provider access to your infrastructure.

The moment data leaves an organization's network, **data privacy regulations may be severely breached**. The consequences of allowing data to be accessed by an external organization are numerous: legal action taken against the company; loss of client trust and business; negative effects on the reputation of the company; identity theft, fraud, etc.



## Who is Selenium Box made for?

Selenium Box is designed for enterprises and specifically financial and health care organizations who have high security requirements especially around data privacy (HIPAA, GDPR, CCPA etc.). Furthermore Selenium Box integrates natively with your existing frameworks and infrastructure and provides unparalleled performance and scaling options.

## Selenium Box solves the following 3 key issues vs. using a public SaaS solution

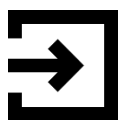


### Data Privacy

When you use a SaaS solution, your test data is sent to the SaaS provider and is visible in clear on their systems. If your test data is not 100% synthetically generated but is cloned from production, anonymized, or pseudonymized, you are likely breaching data privacy regulations (e.g. GDPR, CCPA, HIPAA) as well as your own privacy policy. All test artifacts like screenshots, videos and logs are on the SaaS provider's servers.

**Selenium Box resides 100% inside your firewall**

**No data leaves your network**



### Security / External Access

An external access is required from the SaaS provider to your application under test. This is typically achieved by using a tunnel between your and the SaaS provider. By using a tunnel, the SaaS provider has access to the same systems as the machine where the tunnel is running on.

**Selenium Box resides 100% inside your firewall**

**No external access or tunnels required**



### Legal

Terms of Service from SaaS providers contain the following language:

You are only allowed to use dummy or non-sensitive data for your tests.

You warrant to the SaaS provider that you have sufficient rights in the data that you are using to send it to 3rd parties.

You grant rights to the SaaS provider to use, store, modify, display the data

You indemnify the SaaS provider in case you are not using exclusively dummy data which results in a data privacy breach.

**Keep full control over your data with Selenium Box and do not share it with anyone other than your own organization.**

# Key enterprise Features

## Inside your network



Selenium Box is installed on your servers inside your network and behind your firewall. No data leaves your network. No tunnels or external access required.

## Maintenance-free



Selenium Box is maintenance-free. We pre-test all browsers for functionality and compatibility before making them available for Selenium Box.

## Scalability



Selenium Box is built for scale. The system grows with your needs - from an entry solution to a supercharged central CI / CD continuous testing infrastructure for sophisticated enterprises.

## Performance



Your tests run ultra-fast because Selenium Box is running inside your network with ultra-low latencies.

## Web & Mobile



Chrome, Firefox, Firefox ESR, Internet Explorer, Edge, Safari as well as iOS and Android are supported in the most recent and previous versions.

## Videos



Take videos of your tests for better analysis and more transparency of your test runs.

## CI / Continuous testing



Built for use in a CI / CD environment, Selenium Box is at the heart of your CI pipeline. Run as many tests in parallel as you want. Seamless integration with any CI system.

## Enterprise access control



You may have a large variety of users who access Selenium Box. We give you fine grain control over access rights. We also seamlessly integrate with identity management systems like LDAP, Atlassian Crowd etc.

## SSO / authentication



Selenium Box supports enterprise authentication mechanisms e.g. Kerberos, client certificate, PKI, SPNEGO. This enables the test of application that require single sign-on in an enterprise setting.

## Manual testing



Start browsers and mobile devices for manual testing. Recreate bugs easily and have access to browsers that are not installed on your local machine.

## Rights management



Assign roles and permissions to individuals and groups. Control who can access the Selenium Box system.

## Project Management



Set up projects that reflect your organization. Add individual users or whole teams. Get real time usage data as you need it.

### Enterprise Proxy support



Simplified configuration of company proxies for your automated tests. Centrally manage the proxy configurations so you don't have to do it in your tests.

### Reporting & Monitoring



Advanced reporting for system usage, monitoring tools and integrations are available. Screenshots, videos and live debugging capabilities simplify automated testing throughout the entire lifecycle of the application.

### 24 x 7 Enterprise Support



We know how important it is to get instant resolution in case you encounter any issues with your automated testing infrastructure. We provide around the clock support for all global regions.

### Concurrency control



Control test concurrency and set quality of service parameters on an individual, team and project level.

### Live view & debugging



Set a breakpoint in your code and debug your test in real time. Selenium Box provides superior debugging and live testing capabilities.

### Local testing



Test your application directly on your developer machine. No tunnels etc. are required because Selenium Box is already running inside your network.

### Browser developer tools



Use the built in developer tools of the browsers. Deep dive into your test while running the developer tools to pinpoint those complex issues.

### Tool agnostic



Run tests from any source. You are not tied to a specific vendor framework or toolset. Selenium Box supports the standard Selenium and Appium protocol and API.

### Browser interaction



Manually interact with browsers while your tests are running. Selenium Box supports manual access to all browsers.

### Professional Services



We understand that as an enterprise you have complex and unique environments. That's why we support you all along the way with professional services and custom feature implementations when you need them.

*Inside your network*

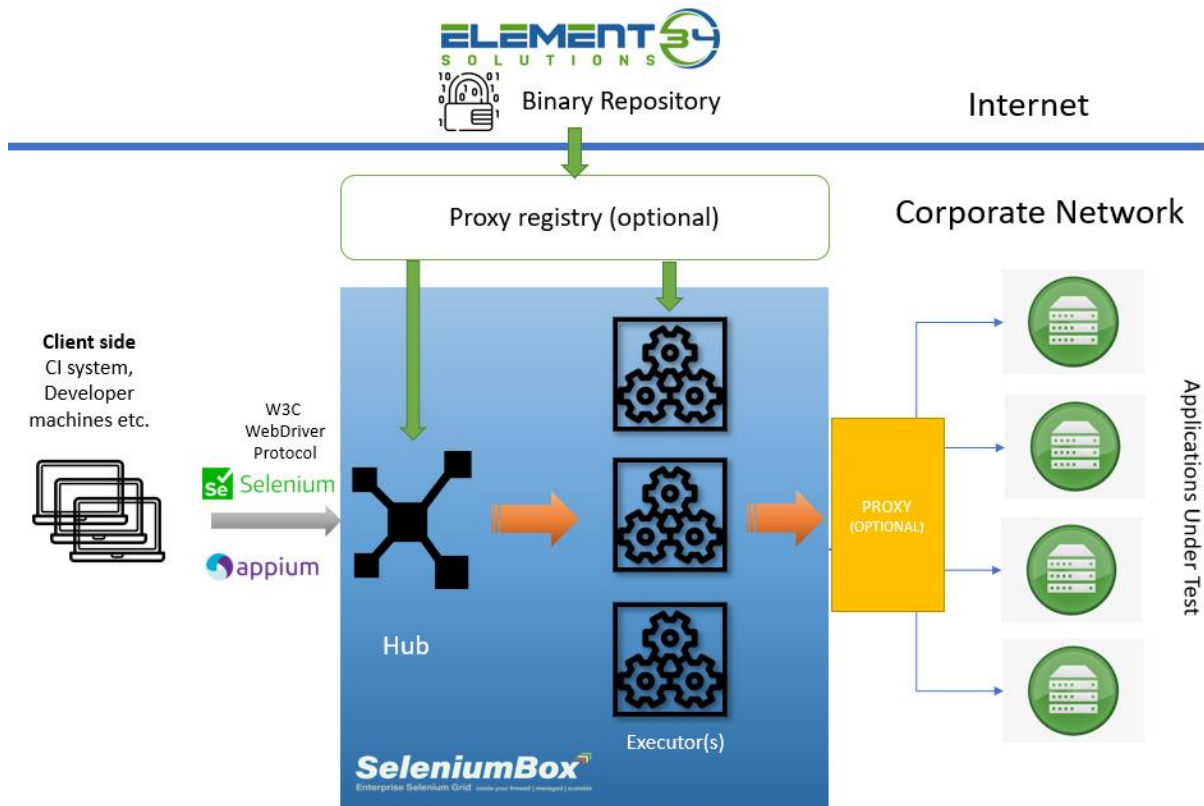
*Maintenance free*

*Secure*

*Highly scalable*

*Lightning fast*

## High-Level Implementation Architecture



- Selenium Box is deployed on your corporate servers or in your AWS, Azure, Google cloud inside your corporate firewall.
- No data is sent outside and no external access to the systems under test is required.
- A typical SBOX system consists of one Hub and one or multiple Executors.
- The Hub and Executors are deployed on standard Linux servers (e.g. RedHat, CentOS).
- Executors can run any type of browser. The number of concurrent browsers / tests per executor depends on the available number of CPUs on an executor.
- Browser and ecosystem updates are delivered via a fully secure mechanism where Selenium Box pulls the binaries from Element34's private repository.

## *About Element34 Solutions GmbH*

Element34 is the leading provider for managed Selenium Grid infrastructure deployed inside the corporate firewall. The company founders and employees are key contributors and thought leaders to Selenium.

Element34 Solutions GmbH was founded in 2015 and has a global customer base. We are headquartered in Lachen, Switzerland.

The company's flagship product Selenium Box is geared towards enterprises with high security, scalability and performance needs. Selenium Box is maintenance free and helps organizations to simplify their on-premises Selenium and Appium infrastructure for cross browser and mobile tests.



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