Velocity iTest

Speed up Technology Releases and Easily Scale to Meet Test Demands by Automating 80% of Test Cases and Shortening Test Times to Minutes

Many organizational lab and validation teams are challenged to keep pace with the increased demands of validation testing. Often, teams are bogged down by time-consuming, manually intensive validation processes that can only occur during business hours. With test setup, script building, and execution taking several hours, these conditions make scaling the existing testing environment impossible.

Velocity iTest, recognized as the industry's leading solution for designing, building, and deploying automated test suites for enterprise network testing and verification, enables the rapid creation of automated, reusable tests. This automation allows teams to focus on building comprehensive test suites, speeding up bug detection in the development cycle and enhancing the quality of new technology releases. Whether using Python, open-source, or in-house automation frameworks, Velocity iTest makes it faster and easier to build and maintain test automation suites.

Keysight has helped hundreds of organizations automate test suites, expand testing capacity, and achieve the following business results:

- **Accelerate Test Case Execution** from one hour per test case to six minutes; seven test cases per day to 10 per hour
- **Drive Faster Release Cycles** to market due to research lab's adoption of test suite and best practices producing accelerated validation testing for vendor, regression testing cycle reduced from 2–3 weeks to 7–10 days
- **Extend Testing Capability** from eight hours per five-day week to 24/7 testing
- **Increase Lab Insight** with easy-to-run daily health report of lab resources

As the central part of the Velocity Automation Portfolio, Velocity Core fully automates and integrates lab and test resources into the CI/CD process.

Reduce Expenses
40% reduction in scripting costs within 1 year

Automation
80% of test cases automated

Test times halved
via continuous 24x7 testing

KEYSIGHT

Highlights

- Leverage a Python-based platform for automation developers and network engineers
- Abstract the complexity of hybrid networks to create robust Python and Robot automation and verification applications
- Easily convert manual network configurations and testing workflows into secure distributable automation applications, API libraries, and keywords
- Make use of 24x7-enabled automated testing, cutting time to completion by more than half
- Boost test automation from 10% to 80%
- Achieve 98% decrease in NF regression test times, from weeks to hours

Velocity iTest Interactive Development Environment for Python, Robot, and iTest Users

Velocity iTest is the first unified Interactive Development Environment (IDE) for Python, Robot, and iTest users, providing the optimal environment for creating modern network automation and verification applications.

Our innovative Portable Automation Format (PAF) simplifies automation and adoption by enabling developers to leverage their automated applications for both lab and production use. Highly productive Velocity iTest Record-Playback and patented Response Mapping are available within Python and Robot development environments.

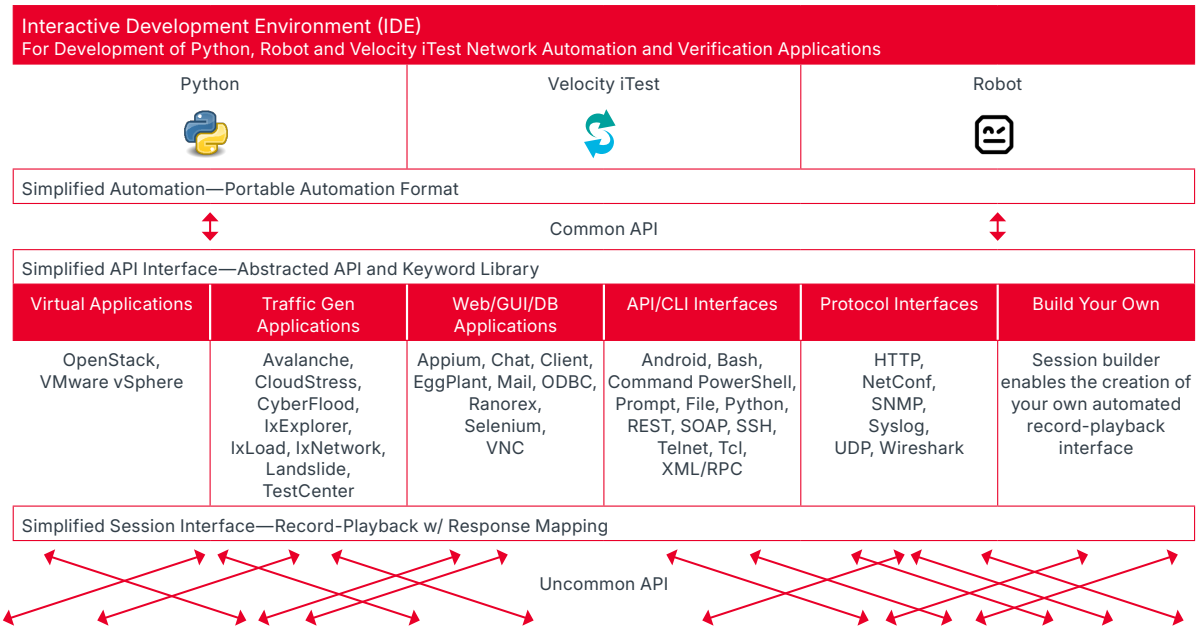

Figure 1. Chart demonstrating Velocity iTest's Interactive Development Environment (IDE)

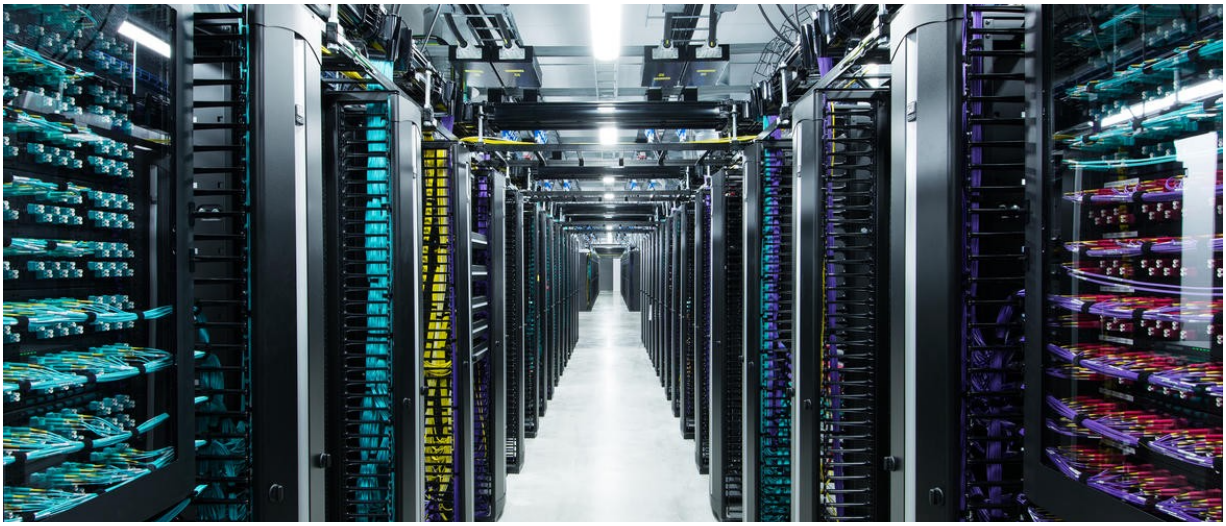

Figure 2. Photo showing heterogenous hybrid (physical and virtual) networks

Velocity iTest Key IDE Features

Explore Python-based Interactive Development Environment (IDE) for automation developers and network engineers.

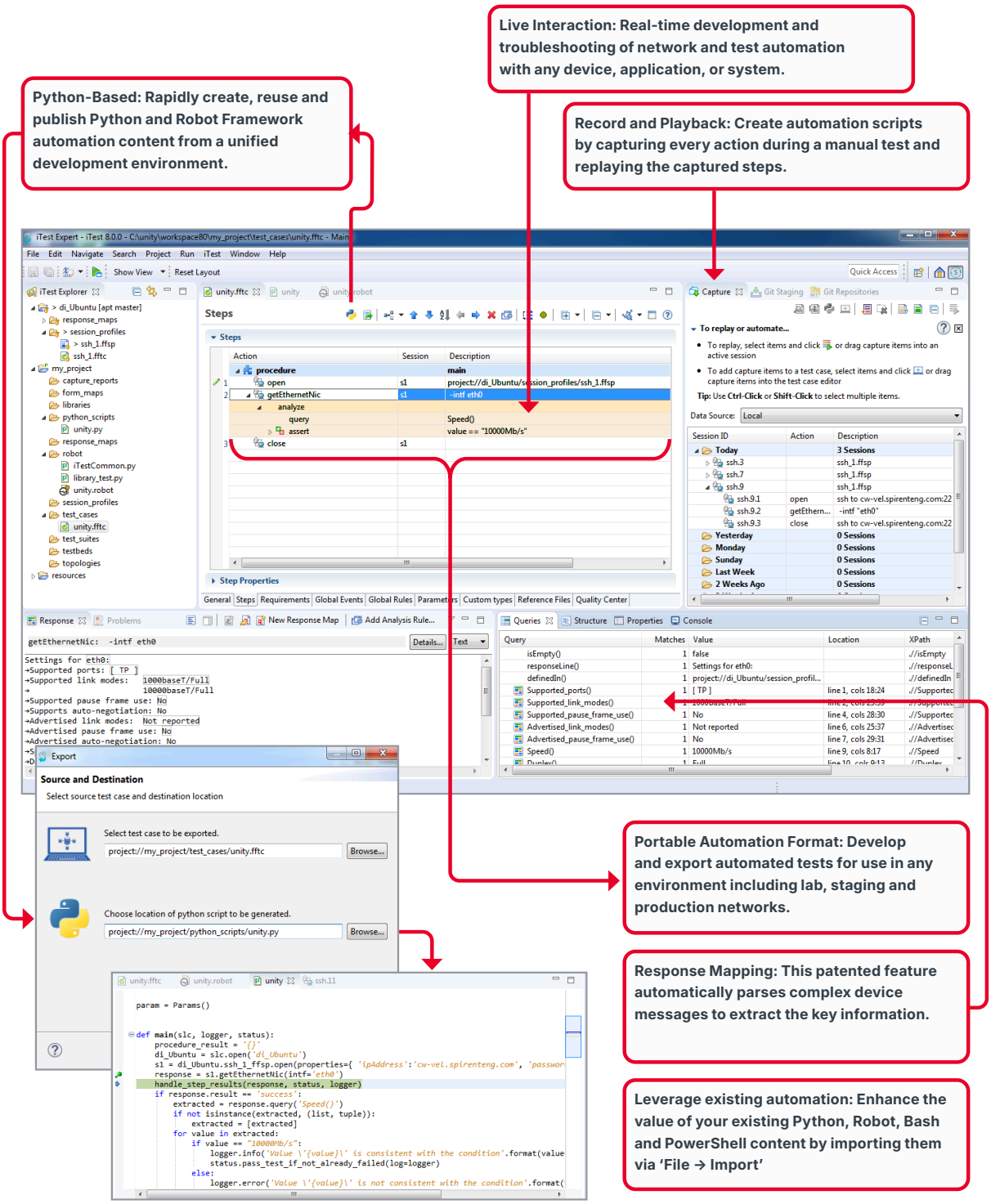

Figure 3. Annotated Velocity iTest screenshot displaying functionality

Velocity iTest Expert Analysis and Community

Leverage integrated verification tools for expert analysis and join a community of resource experts to jumpstart your automation.

Expert Verification and Analysis

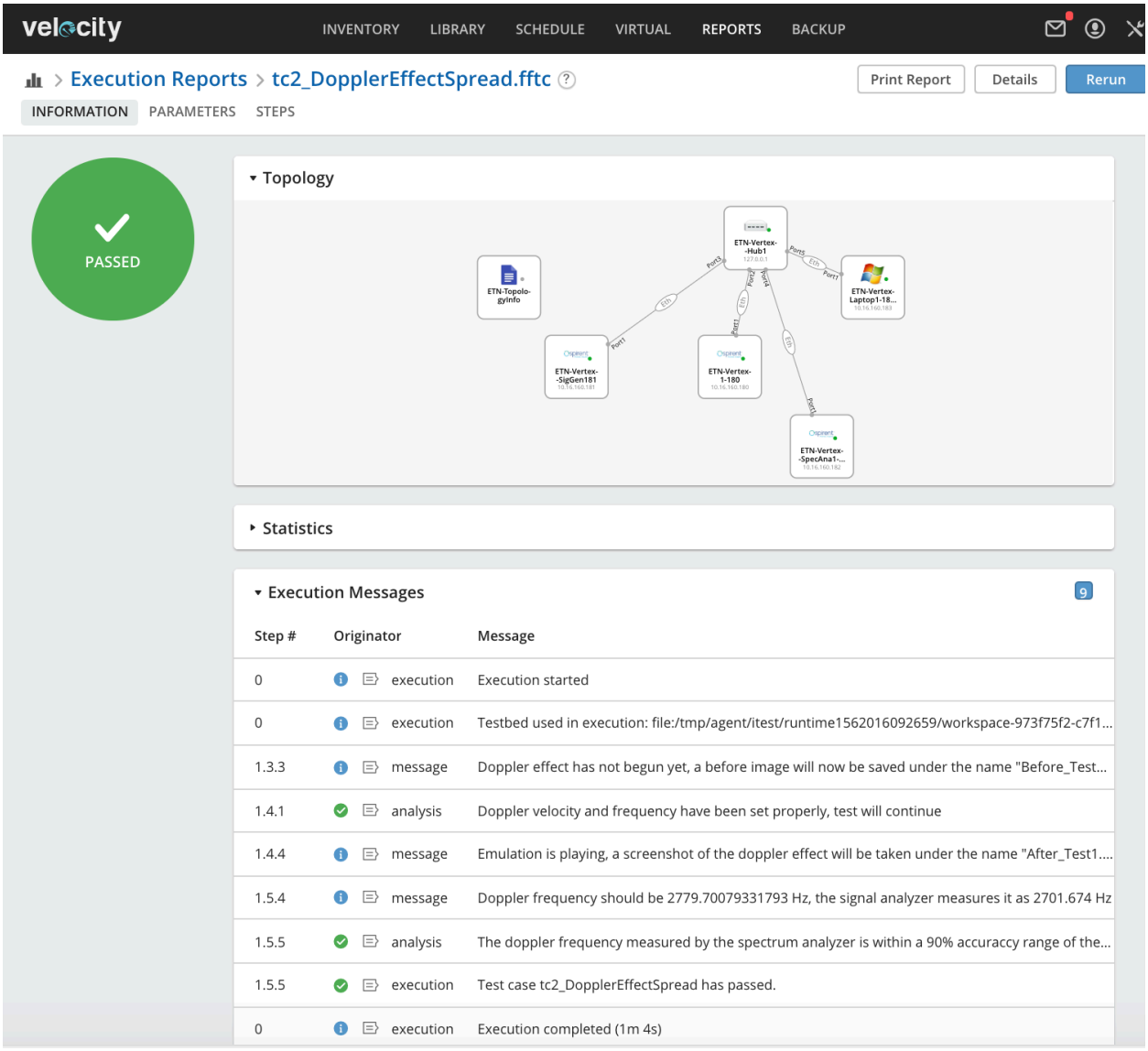

Figure 4. Keysight Velocity iTest provides a correlated analysis of the entire system under test with configurable, personalized reports.

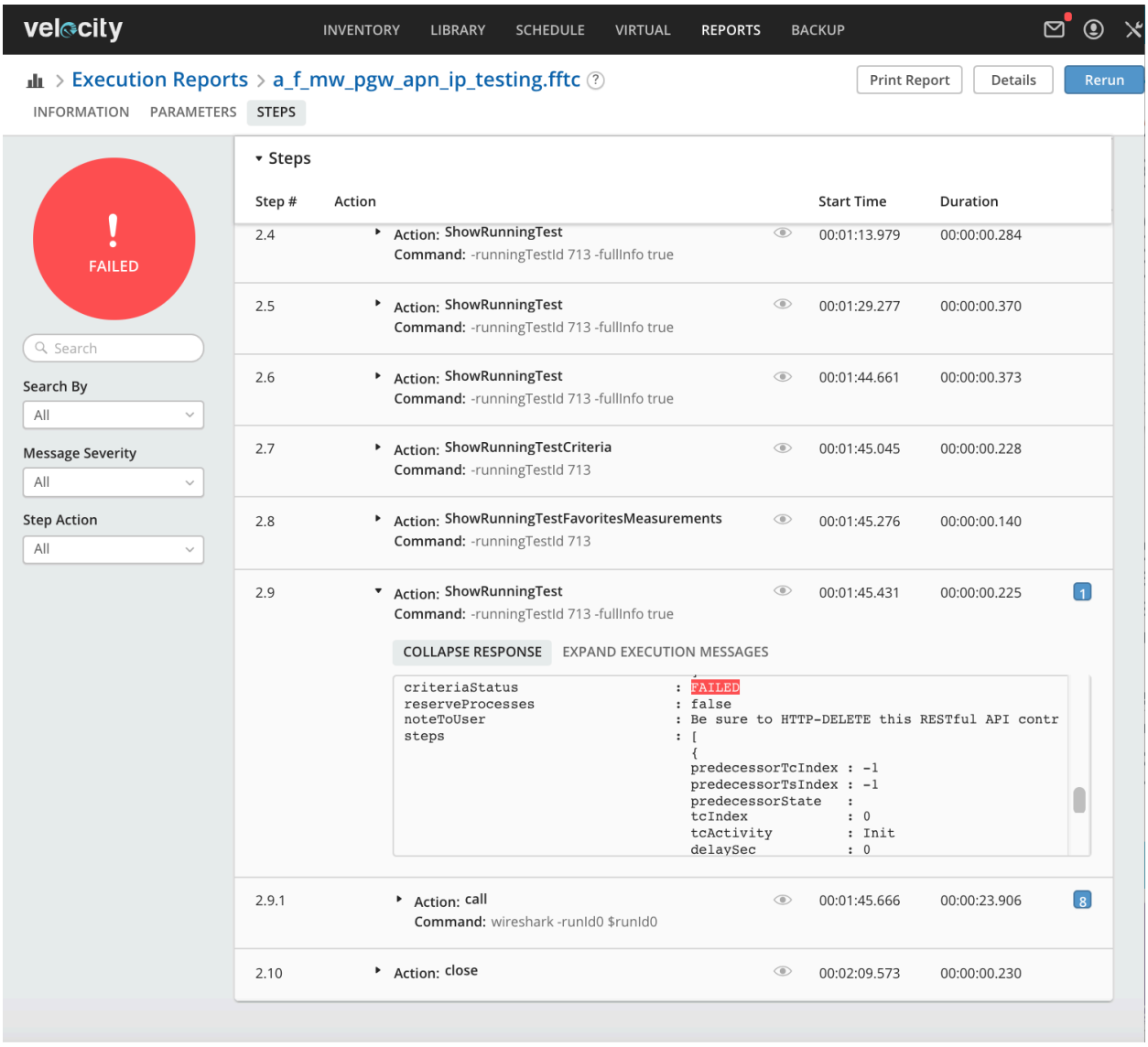

Figure 5. Interact during test or post-test. Quickly pinpoint issues and easily drill down from test reports.

Join the Expert Community

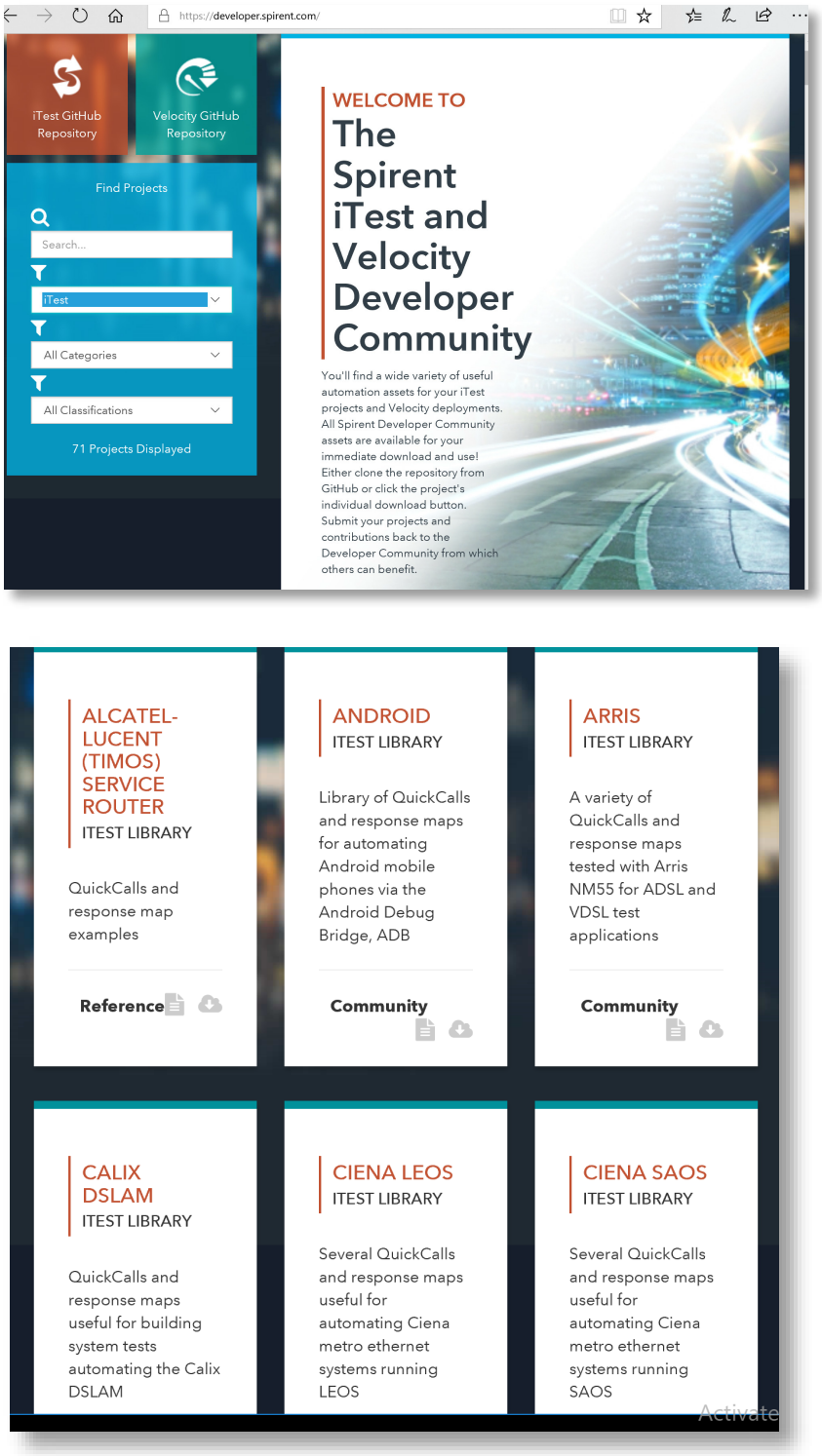

Figure 6. Two Expert Community website screenshots

Explore a wide variety of useful automation assets for your Velocity iTest projects. All Keysight Developer Community assets are available for your immediate download and use.

Either clone the repository from GitHub or click the project's individual download button. Submit your projects and contributions back to the Developer Community from which others can benefit.

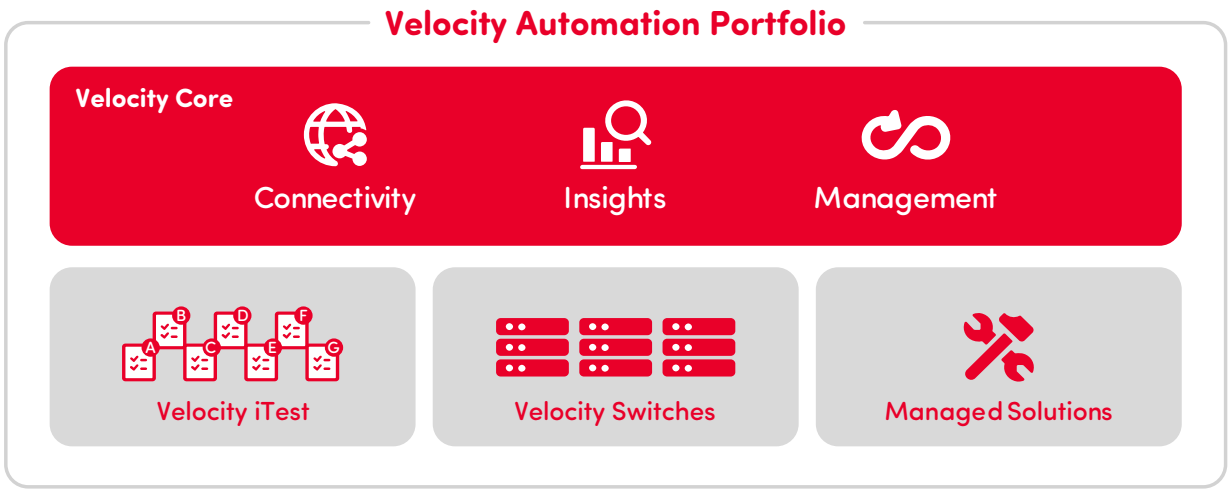

Figure 7. Chart displaying Velocity Automation Portfolio offerings

The Velocity Automation Portfolio supports the complete automation of customer lab and testing environments for large enterprise, NEM, and service provider organizations. It is the only fully integrated solution to provide automation and management of lab resources, facilitate automated test suite creation, oversee lab connectivity and topology, and provide professional services for initiative success.