

# Service Virtualization

Micro Focus® Service Virtualization software removes the development and testing “wait time” that can slow delivery of applications. It enables your teams to easily create realistic simulations of service behavior—so you can stay on schedule even when dependent application components or systems aren’t available. Simply put, you can focus on service quality rather than resource constraints.

## Product Highlights

Today’s composite app initiatives often create a difficult dilemma for development and testing teams: Meet the project deadline OR deliver a high-quality service. The core issue: growing interdependency among functional components leads to reliance on resources from third-party vendors, which leads to wait time and extra cycles.

Service Virtualization enables your application teams to easily create virtual services that can replace targeted services in a composite application or multi-step business process. By accurately simulating the behavior of the actual component, it enables developers and testers to begin performing functional or performance testing right away, in parallel—even when the real services are not available, when data access is restricted, when data is difficult to attain, or when the services are not suitable for the particular test.

At the same time, Service Virtualization can reduce costs by eliminating the requirement for access to constrained business-critical infrastructure, third-party systems, or payper-use cloud components for testing. Other benefits include:

- Fast access to all components

- Broader test coverage and fewer defects released to production
- Reduced risk and faster release cycles through earlier functional and load testing
- Lower costs related to provisioning and managing complex test environments
- Enhanced collaboration for teams across the lifecycle

The net result of Service Virtualization is not only the ability to “shift left” and execute tests earlier in the delivery cycle, but also to focus on service quality attributes such as performance, reliability, **and** scalability. In short, Service Virtualization delivers both faster delivery times and higher quality services. In the process, it creates significant benefits for all stakeholders:

## For Developers

- Access dependent application components and shared services quickly and easily
- Expose unfinished components to testing teams and other projects for dev/test
- Enable continuous unit testing within complex systems
- Eliminate the need to create and maintain programming stubs

## Unique Advantages

- **SAP certified:** The first and only enterprise virtualization solution certified and resold by SAP
- **Cross-vertical solution:** Proven in multiple industry sectors, including utilities, financial services, telecom, and more
- **Portfolio-wide integration:** Integrates with all Micro Focus testing toolsets, including Micro Focus Unified Functional Testing, LoadRunner, Micro Focus Application Lifecycle Management, Micro Focus Performance Center, and Micro Focus Network Virtualization
- **Lifecycle virtualization:** The only integrated lifecycle virtualization solution that addresses complete virtualization at the user, application services, network, and data levels
- **Large-scale load testing:** Allows access to virtualized services for large-scale load and realistic performance scenarios testing without impacting production systems
- **Ease of use:** Quick and easy creation, setup, reuse, and sharing of virtual services and assets

### For Functional Testers

- Set up working test environments faster and with lower costs
- Support continuous integration and testing for shorter iterations
- Conduct more realistic tests by modelling backend functional, performance, and network behavior

### For Performance Testers

- Mitigate constraints and test performance within application dependencies
- Model extreme performance characteristics
- Model performance behavior of third-party systems
- Include network characteristics that influence performance

### For Your Company

- **Increase efficiency:** Reduce average wait time from 32 days to one day<sup>1</sup>
- **Improve quality:** Cut incidents and defects in production by more than 40 percent<sup>1</sup>
- **Faster time to market:** Slash the software release cycle by 40 percent or more<sup>1</sup>

### Key Benefits

Discover the industry's most easy-to-use solution to design and publish virtual services quick and easy virtual service creation:

- Easy and intuitive IDE Embedded service virtualization runtime for local use
- Predefined virtualization starting points
- Dialog-based service creation
- Data-oriented functional modeling with auto-generated data

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<sup>1</sup> Source: Voke Market Snapshot Report: Service Virtualization January 21, 2015.

- Learning, data driving, manual authoring (request-responses)
- Performance, scalability and batch processing simulation
- Interactive, on-the-fly simulation model creation
- Dynamic data generation and parameterization
- JavaScript and C# scripting
- Simulation logging and preview
- Pre-defined technologies with extensibility SDK

### Scalable Infrastructure with Shared Management

- Shared, secured simulation infrastructure
- Web-based virtual service management interface and dashboard
- Unified virtual service management across multiple server nodes
- Parameterized filtering and search
- Provisioning and control of virtual environments
- Virtual service and server statistics
- Event audit and message log viewer
- Shareable and exportable agent management
- ACL management and granular security
- Integrated to Micro Focus ALM/QC, VCS, and other repositories
- Integrated with enterprise identity system (LDAP)

### Broad, Flexible Functionality

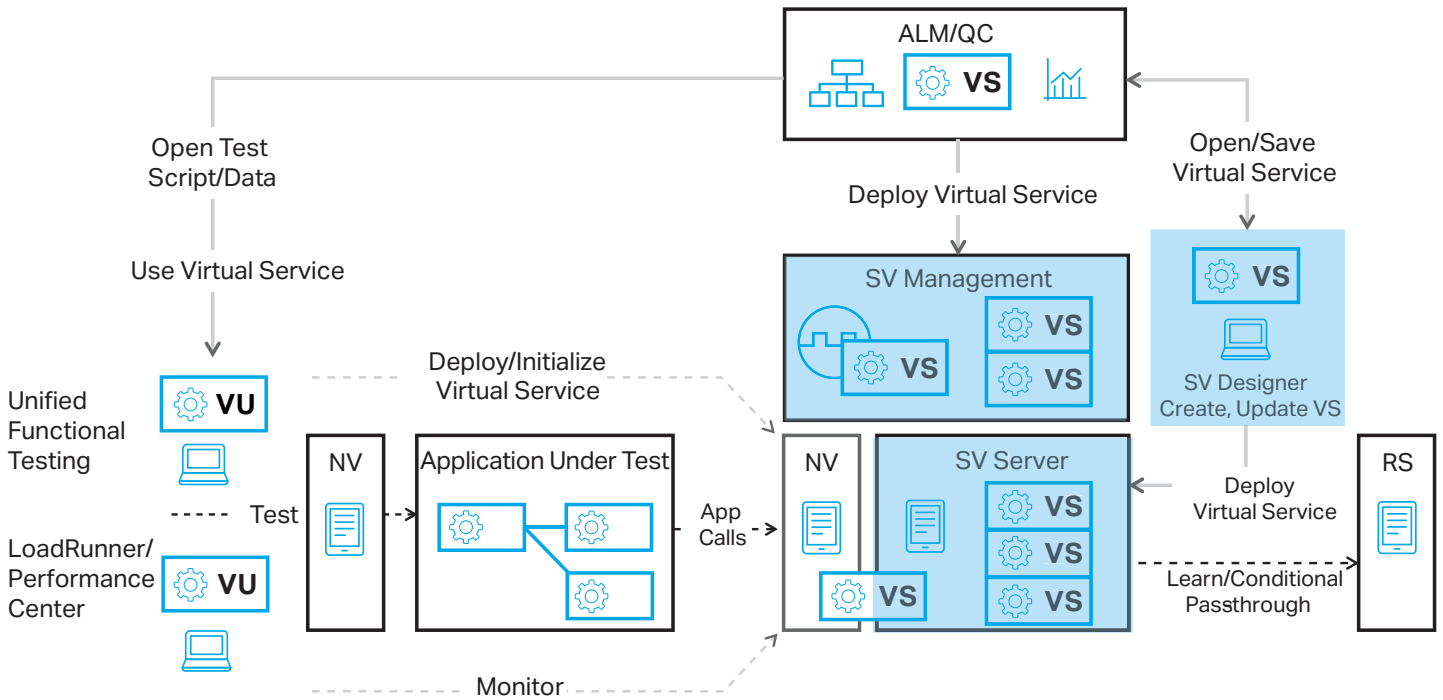
- Ability to introspect, learn, or design virtual services
- Intrusive and non-intrusive virtualization
- Support for many protocols, message types, and standards

- Stateless/stateful/asynchronous/conditional simulation supported
- Ability to learn and update dynamically as services change
- Ability to desensitize data with data masking, drive from external data
- Reusable and shareable virtual service components
- Ability to publish and share virtual services
- Integration of real-time network information and execution in almost real time of performance tests
- Full virtual service lifecycle accessible over API/Command Line

### Key Features

Service Virtualization Software Consists of the Following Applications:

- **Designer:** A client application enabling you to create virtual services, and run simulations of real service behavior. The Service Virtualization Designer is used for design and validation of virtual services within the same desktop environment, and includes an embedded server for hosting virtual services.
- **Server:** A standalone server application that hosts the running of virtual services. The Service Virtualization Server is optimized for performance, can contain many more services than the Designer, and can be accessed by multiple Designers.
- **Management interface:** A web application enabling you to view and manage all services from Service Virtualization configured servers, without opening the Designer or individual projects. The Service Virtualization Management interface is installed by default when you install the Service Virtualization Server.



**Figure 1.** Micro Focus Service Virtualization integrates with other Micro Focus software for easier configuration of virtual services.

The integration of Service Virtualization with Micro Focus Application Lifecycle Management (ALM), for example (see Figure 1 on the following page), enables you to store your service virtualization projects as test resources in ALM. This can facilitate the use of the virtual services by other users, or by testing tools.

In addition, the Service Virtualization integration dialog box on Micro Focus Performance Center, Micro Focus LoadRunner, and Micro Focus Unified Functional Testing (UFT) allows for easier configuration of virtual services in automation scripts. Enhanced virtual service setup is made possible through the ability to add services directly from the Service Virtualization Server. Simplified virtualization setup for test scripts is provided in LoadRunner and UFT. Auto deployment of associated virtual services and auto provisioning of configuration are provided

once the script is executed. Most importantly, the enhanced virtual service runtime feature allows virtualization changes to take effect immediately, and provides the ability to change virtualization conditions when the script is already running.

### Customer Successes

Service Virtualization software has been tried, tested, and proven at real-world customer sites around the world—in virtually every vertical market segment. Here are just a few examples of the benefits achieved:

**Major telecommunications company:** The ability to test earlier and more effectively eliminated third-party dependencies and helped the company record a 100 percent gain in efficiency.

**Fortune 100 global bank:** The software significantly improved the efficacy of its performance

testing, catching issues that weren't identified by other simulation tools.

**Utility:** The utility stopped missing service delivery deadlines due to a lack of available systems. With Service Virtualization it was able to develop/test code calls against systems that did not currently exist.

**Leading electronics retailer:** Expensive stub solutions from dev team were slow and had no integration to performance tools. Service Virtualization processed ~2.5 times more SAP Idoc messages per second than competitive solutions.

**Hospitality organization:** The ease of use of Service Virtualization and its seamless integration to the ALM performance and functional testing stack provided a comparable production-like environment when production was not

“... provides ease of use and an enjoyable user experience and integrates with its own ALM testing tools like LoadRunner.”

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available for testing. It provided the ability to test varied response values for un-configured site or endpoints to gain visibility of the impact on the SOA bus.

**Financial services:** Service Virtualization helped solve the challenges of testing 50 to 100 apps per year and third-party dependencies such as government regulation, electronic payment brokers, and various protocols such as ISO8583—so that the company could meet agile team needs and implement a continuous delivery model.

**Communication service provider:** The time-frame for setting a test bed and achieving

results was reduced saving money for hardware and resources and providing a shortened time to execute test cycles.

#### For More Information

Please download a free 30-day evaluation version of the software at [www.microfocus.com/service-virtualization/free-trial](http://www.microfocus.com/service-virtualization/free-trial), or contact your local Micro Focus representative to arrange a demonstration.

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