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Data Sheet

Service Virtualization for SAP

SAP Modernization sets a high bar for what Quality levels are acceptable. Eliminate testing downtime caused by unavailable or unsuitable test environments by quickly creating realistic simulations of the required SAP System, API endpoints and interconnected Services.

Product Highlights

The SAP Imperative

For you, SAP is unlike every other Enterprise Application. It stands alone because of the criticality of the business processes that it completes, the business impacts of down or slow-time and the challenges of both keeping up-to-date and modernizing with ever increasing pace, to provide your business with access to stable but new SAP innovations. To deliver all of this you can't rely on the old ways of working, these were perfected for the older generations of SAP but now you need to think more Agile, more cloud, more delivery ready and critically not let any bottlenecks get in your way.

Introducing OpenText Service Virtualization

OpenText Service Virtualization is able to assist your development and testing teams in working together to overcome one of the major hurdles in your starting fast and keeping efforts working at pace. Specifically, by removing the ever-growing interdependency amongst functional components and a reliance on external services or resources which are either not available or have not even been created yet. This could be communications between other SAP systems via iDocs or an external data source into your application via for example OData, indeed any service that your SAP Application development and testing is dependent on but is not available could stop any progress.

Service Virtualization enables 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 test.

Major impediments addressed by Service Virtualization:

- Non-availability to QA of other SAP or 3rd party systems for development, functional and performance testing causing delays
- Increased complexity in building and maintaining testing environments including the required amount of consumed test data which cannot easily be refreshed for each test cycle
- Inability of developers to quickly identify and replicate the root causes of failure and deliver fixes in a timely manner as data and environment is different

SAP Development and testing teams can achieve:

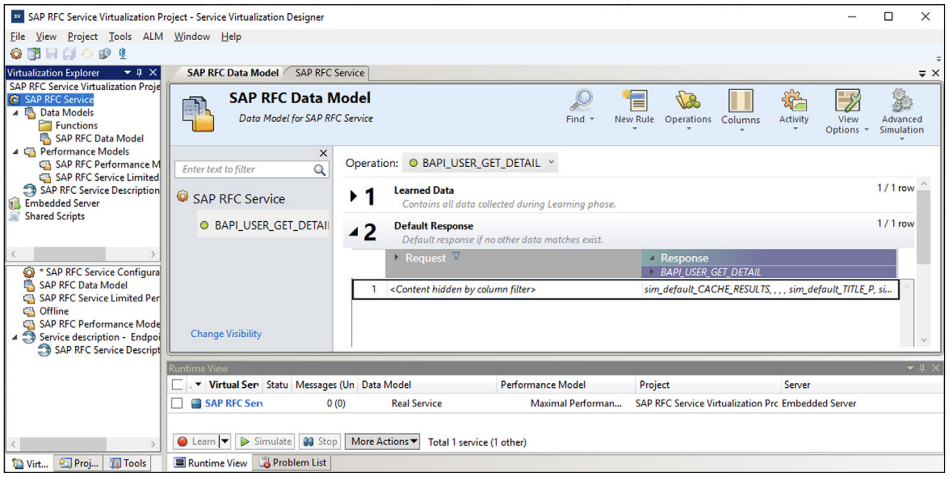
- Increased Test frequency through not consuming SAP system test data when running tests, your tests can use the same data for each cycle
- Reduce the cost and increased the realism of your QA or Dev system by using simulation rather than real, expensive services and infrastructure

Key Benefits

- **Comprehensive SAP and non-SAP coverage**—RPC, iDoc and OData for specific SAP support plus ~100 other technologies and protocols available
- **One solution for unit, functional and performance testing**—with pre-built integrations to ALM, UFT and LoadRunner family of OpenText products
- **Design, publish and run in minutes**—achieve faster time to value with the industry's most user-friendly solution
- **Cross-vertical usage**—proven in multiple industry sectors including financial services, telecom, utilities, insurance manufacturing and more
- **Data-oriented simulation**—broad built-in enterprise protocols coverage and modelling techniques independent of customers technical background and skill
- **Large-scale load testing**—built for scale and realistic performance simulation
- **Dev focused API simulation**—innovative approach with advanced simulation for enterprise applications spanning across Web, Mobile and Internet of Things
- **Flexible infrastructure**—deployment of multiple simulation nodes depending on performance or test environments needs with multiple licensing options

- Eliminate dependent services and so start testing earlier, find defects sooner

The result of using Service Virtualization within a SAP project is, rather than finding your Dev and Test teams unable to work due to DEV/QA environments or data being unavailable, they will be able to work earlier in the delivery cycle, with less downtime interruptions allowing you 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 application delivery stakeholders.



Key Features

Increase Efficiency: Shift-Left and Execute Tests Earlier in the Delivery Cycle

INDUSTRY'S MOST USER-FRIENDLY SOLUTION TO DESIGN AND PUBLISH VIRTUAL SERVICES

Service Virtualization provides an intuitive design IDE with data-oriented modeling independent of the customer's technical background and skills. SV capabilities include learning, data and samples imports, manual scenario modelling, data driving from database or files, advanced scripting, and interactive, on-the-fly simulation model creation. The easy-to-use design IDE contains an embedded simulation runtime for quick simulation debugging and local use. Users can quickly model access to dependent application components and shared services, expose unfinished components to testing teams and other projects for dev/test and eliminate the need to create and maintain programming stubs.

OUT-OF-THE-BOX BROAD PROTOCOL AND SIMULATION COVERAGE

SV comes with a range of pre-built industry wide protocols enabled for out-of-the-box simulation. SV provides dynamic data generation, auto-parameterization to increase simulation robustness, and built-in data masking to ensure data security. Advanced simulation capabilities like hybrid simulation and performance batch processing cover even the most complicated testing scenarios.

DEVELOPER-FOCUSED SIMULATION WITH EXTENDED MOBILE AND IOT CAPABILITIES

SV Lab technology provides developers and test engineers with a powerful set of new capabilities to solve advanced simulation use cases in testing of enterprise applications spanning web and mobile user interfaces, from legacy back-ends to cloud-native applications, connected devices, and Internet of Things.

Improve Quality: Conduct More Realistic, Scalable, and Secure Tests with Fewer Defects Reaching Production

ONE SOLUTION FOR UNIT, FUNCTIONAL AND PERFORMANCE TESTING

SV comes with built-in performance modelling capabilities on top of functional and data models. Ready-to-use integration to performance testing tools and scalable simulation runtime allows easy simulation of extreme backend services behavior that are hard to achieve on limited physical infrastructure, helps to mitigate constraints, and test performance within application dependencies. Users can stand up working test environments faster and with lower costs and conduct more realistic tests by modelling backend functional, performance, and network behavior.

SCALABLE AND SECURED SIMULATION INFRASTRUCTURE

SV comes with a flexible simulation infrastructure capable of handling large numbers of concurrent simulations while delivering thousands of transactions per second. Virtual Services are deployed in SV Server nodes serving multiple Virtual Services and controlled over API, command line interface, or web-based portal. The access to SV Server is secured by authentication and Virtual Services can be restricted using Access Control Lists (ACLs).

WEB-BASED MANAGEMENT

Web-based Service Virtualization Management Interface brings visibility and control to Virtual Services across multiple server nodes. It allows provisioning and control of virtual environments; management and configuration of protocol agents; parameterized search and filtering; and access to Virtual Service and server statistics, event audit, logged messages and simulation reports.

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OpenText CEO Mark Barrenechea's blog

FLEXIBLE DEPLOYMENT

SV's infrastructure allows deployment of multiple SV Servers depending on performance requirements, test environments, system architecture, or organizational needs. Users can choose either to use direct OS installation or containerized deployment with pre-created Docker images.

Faster Time to Market: Accelerate the Software Release Cycle with End-to-End Testing Tool Integrations

PRE-INTEGRATED FOR USE WITH FUNCTIONAL AND PERFORMANCE TESTING TOOLS

SV comes with pre-built integrations to the UFT Functional Testing and LoadRunner Performance Testing portfolios. Test engineers can easily provision and control Virtual Services directly from automation tools and collect metrics during test execution and simulation time. SV integration to LoadRunner tools allows real time capture and visualization of Virtual Service simulation and server metrics directly in LoadRunner tools. Auto deployment of associated Virtual Services is provided once the script is executed and also provides the ability to change simulation conditions on the fly when the script is already running.

MOBILE TESTING WITH SIMULATION

OpenText UFT Mobile includes a built-in capability for Dev Testers and Developers to execute their tests with simulated APIs within test automation tools. SV Lab enables mobile application teams to easily create Virtual Services that can replace targeted services in a composite application or multi-step business process. The SV lab is deployed together with UFT Mobile and allows simulation of REST API and communication to physical devices over NFC and Bluetooth services.

TEST ASSET MANAGEMENT

SV comes with pre-built integrations to Application Lifecycle Management (ALM) and Source Code Management (SCM), allowing storage and management of Service Virtualization projects as test resources in ALM or together with testing assets in SCM. Shared SV asset management allows easier maintenance and versioning, and, facilitates re-use of the Virtual Services by other users and other testing tools.

DEVOPS AND CONTINUOUS INTEGRATION

Integration with Continuous Integration (CI) tools using SV management API and CI plugins such as Jenkins or Bamboo allows SV to be part of the continuous integration process. When combined with test automation, these capabilities enable enhanced workflows for Developers and Testers through shortened feedback cycles in Continuous Integration, Continuous Testing, and DevOps practices.

Customer Success

Service Virtualization software has been tried, tested, and proven at real-world customer sites around the world—in virtually every vertical market segment.

Leading Electronics Retailer

Expensive and slow bespoke created stub solutions from the SAP Development team were too slow and had no integrations available into the required performance tools. The result with Service Virtualization is that it was able to process ~2.5 times more SAP IDoc messages per second than the competitive solutions.

Hospitality Organization

The ease of use of SV and its seamless integration to the ALM performance and functional testing stack provided a comparable production like environment when production was not available for testing. SV provided the ability to test varied response values for un-configured sites or endpoints to gain visibility of the impact on the SOA bus.

System Requirements

Supported Operating Systems:

- Windows: Windows 8.1,10, Windows Server 2012/R2, 2016, 2019
- Linux (SV Server only): Red Hat Enterprise Linux 7.0-7.3/8.0-8.5, Oracle Linux 7.3/8.2 and CentOS 7/8.2
- Database: MS SQL 2008 R2, 2012, 2014, 2016, 2019, Azure SQL, Oracle 11*g*/12*c*/18*c*/19*c* PostgreSQL 9.x/12.x
- SV Lab Server: Open JDK 8u112, Oracle Java 1.8.111
- Containers: Docker (Windows and Linux), VMware

Learn More

www.microfocus.com/en-us/industry/solutions-for-sap-modernization

Support Matrix: **https://admhelp.microfocus.com/sv/**

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