PARASOFT®

Virtualize

Increase Testing Efficiency With Service Virtualization

» Remove test constraints.

» Improve product quality.

» Decrease time to market.

» Reduce testing costs.

"Service virtualization has allowed us to get great utilization from our testing staff, complete more projects on time, and also save money by lowering the overall total cost of performing the testing required for a given release... We used to need 2 weeks to performance test the code once we got it in our staging environments. Now, we've shrunk that to just 2 or 3 days."

COMCAST

Parasoft Virtualize
Test Earlier, Faster, and More Completely

Create, deploy, and manage virtual test environments—anytime, anywhere

Testing is hard. It's even harder when you can't depend on components that are out of your control because systems are still evolving, difficult to access, difficult to scale, or difficult to configure. With Parasoft Virtualize, you can create, deploy, and manage simulated services for dev/test environments while reducing the constraints that arise from inadequate test data.

Virtualize goes beyond other service virtualization solutions with its integration with the Parasoft Continuous Testing Platform, which provides an intuitive browser-based interface for collaboration and coordination of your virtual services. You can bundle virtual assets and test cases into a virtual test environment, giving you full control over your test environment and the ability to test earlier and more completely.

Service virtualization solutions are commonly applied in the following contexts.

Application Testing

Perform complete and comprehensive testing of your application early and often by simulating backend systems that are unavailable, expensive to access, or out of your control.

Performance Testing

Shift-left performance testing by simulating the SLAs of your dependent systems, unblocking yourself from the limited availability of your physical performance test environment.

Continuous Testing

Get ahead of the competition by accelerating the testing phase of your continuous delivery pipeline and automating the feedback loop with continuous testing to assess your release readiness.

Environment Management

Instead of scaling additional hardware for hundreds of new test silos, leverage service virtualization to dynamically deploy and destroy virtual test environments.

G² High Performer WINTER 2023

FORRESTER® WAVE LEADER 2022 Continuous Automation Testing Platforms

IDC MarketScape Leader 2022 Worldwide Cloud Testing

SD Times 100 2022

Simulate Any Service

Get started with Parasoft Virtualize for free. Download the free edition.

Simplify Testing With Service Virtualization

To test your complete application, you can use service virtualization to simulate services that are out of your control (APIs, systems owned by other teams, systems that are under development, and so on), which must be available for testing. Parasoft Virtualize uniquely simplifies the process of creating the virtual assets that power service virtualization, by providing message proxies.

Message proxies are listeners that stand between the application and the backend systems. They monitor communication between the application and its dependencies, which you often wouldn't have any visibility into, so Virtualize can automatically create virtual services based on observed traffic. Parasoft Virtualize analyzes the traffic to understand patterns, link requests to responses, interpret schemas, and abstract data to create intelligent, maintainable virtual services. Users can enable learning mode to create self-learning virtual assets easily and rapidly for up-to-date virtual services that reflect the latest versions of the real services.

With this automation, the process of building a virtual service is easy. It will carry with it all the logic required to support your test case. You can then deploy these virtual services to a virtual server and consume them like regular services.

Test Any Interface

Extensive support for more than 120 industry API technologies, including definition languages, transfer protocols, message formats, standards, and much more, enables you to thoroughly test any interface.

Manage Your Virtual Environments

Usually, an application doesn't require just one virtual service, it requires many virtual services. Coordinating the configuration of those virtual services would be complex without the Parasoft Continuous Testing Platform. CTP enables you to configure multiple virtual services into an environment bundle, along with test cases and test data. Configure pre-defined responses for repeated requests to simplify complex service behavior.

With the integrated dashboard for managing and maintaining those virtual services, you can understand your asset inventory and control which services are deployed. Through its browser interface or through your continuous integration systems, the Parasoft Continuous Testing Platform makes it easy to access the right environment at the right time.

Understand how virtual services are being utilized across the enterprise and monitor the events within those assets for increased visibility.
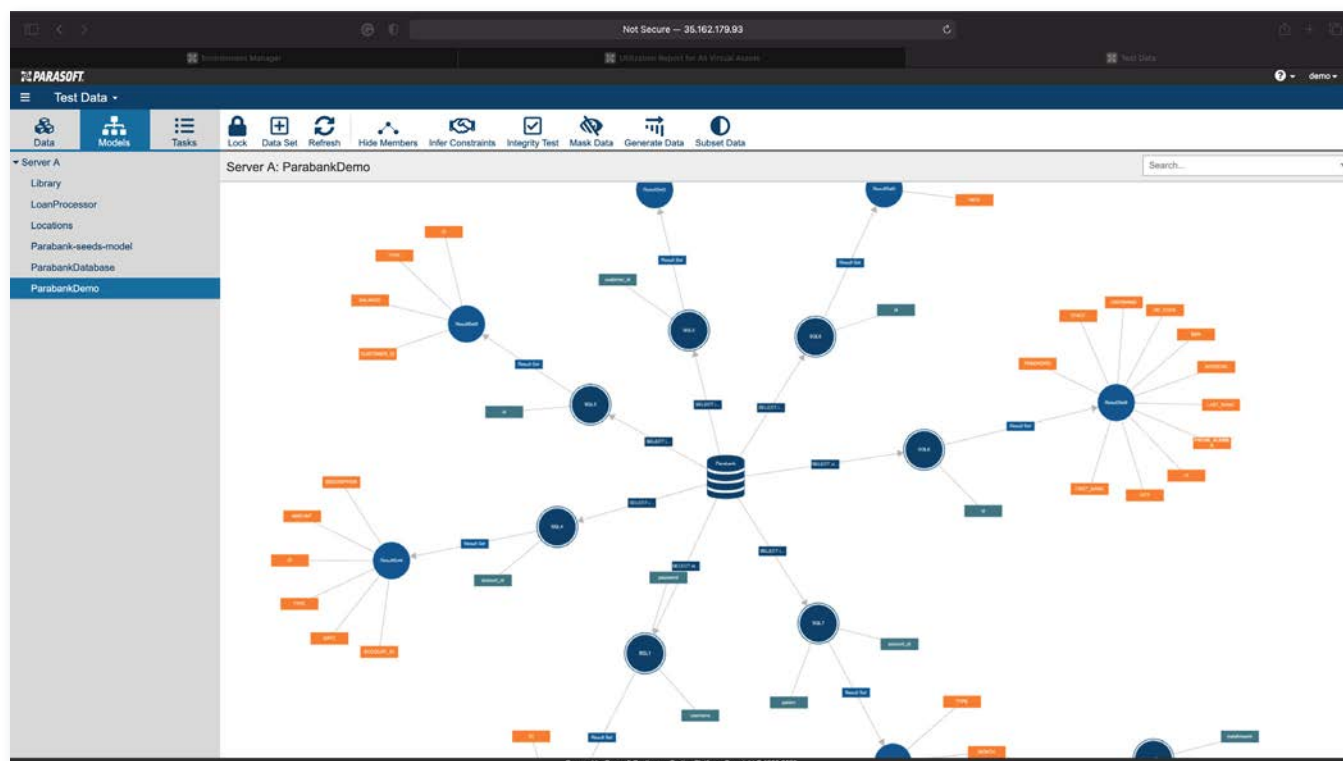
Create a model of your system data to gain full flexibility and control of your test data for use in software testing activities.

Test Virtually Without Limits

When performing API and integration testing, DevOps and QA teams often experience delays due to lack of test data, which can impact the sprint or the entire delivery. To keep your application testing from getting stalled, you need access to realistic test data on demand.

Automatically Create Data Models

Parasoft's modern approach to test data combines test data management with service virtualization to deliver data simulation. The integrated test data management technology monitors actual traffic and data patterns to generate data models from interactions in your system, and automatically infers information about the data to make it easier for nontechnical users to get the test data they need.

This approach to test data is more efficient than traditional test data management solutions because most of the complexity in traditional TDM comes from deriving the data model, whereas in the Parasoft ecosystem, that happens automatically.

Capture Data From Any Environment

Some of the best data exists in your production environments, but you can't just pull that data directly from production because it presents too much risk. With the Parasoft solution, you can extract data from anywhere and then apply a masking process to that data, thus sanitizing it for use in test environments and making the overall process of service virtualization much easier with many new possibilities for data gathering.

Using the browser-based UI, you can generate additional data for use in virtual services, as well as snapshot the data to easily roll forward and backward in time.

Virtual test data clears the path to continuous testing. By using synthetic data with your virtual services, you can test for a wide variety of conditions, both common and corner cases.
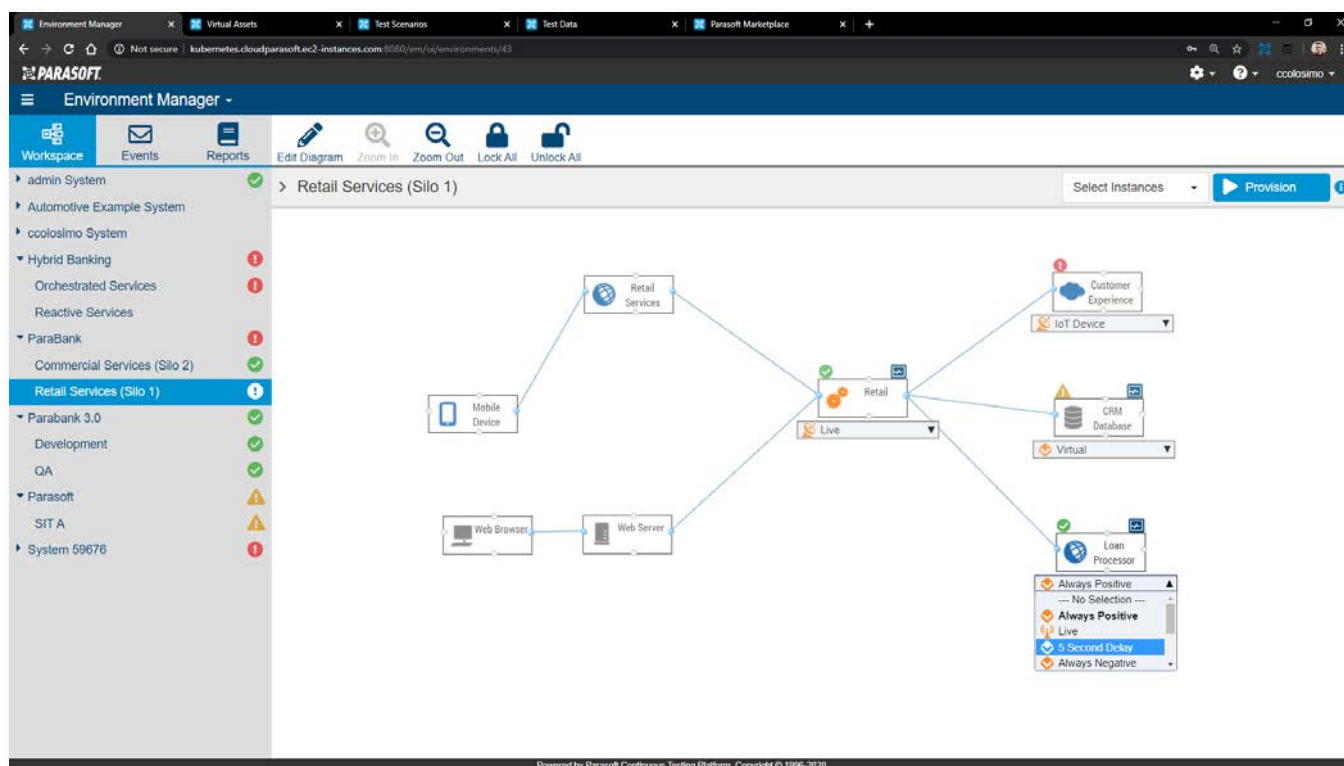
Integrate Virtualize with Parasoft CTP to orchestrate your tests against different environment profiles and control the behavior of your virtual services to enable rainy-day or negative testing.

Get Real Results

Parasoft's customers in every industry use Parasoft Virtualize to benefit their businesses.

Telecommunications
Run earlier, more comprehensive performance testing by eliminating database dependencies.

Military & Defense
Rapidly prototype functionality to accelerate feedback cycles and reduce time-to-market.

Retail & E-Commerce
Increase the scope and frequency of testing without availability constraints.

Hospitality & Travel
Accelerate parallel development of highly interconnected components.

Healthcare
Reduce the time spent waiting for data for industry-specific protocols such as EDI.

Financial
Simulate systems with industry-specific protocols such as ICE, FIX, and Swift.

Capabilities

Create and manage a variety of virtual assets with the extensive capabilities built into Parasoft Virtualize.

» Service virtualization

» Database virtualization

» Test environment management

» Test data management