Our interconnected world depends upon software that is becoming increasingly complex to develop and test. With multiple dependent systems, a complete and realistic test environment is nearly impossible to stage. Developers, QA testers, and performance engineers face:

- Systems that are impractical or too complex for test labs
- Divisional and political boundaries that limit access to resources
- Inaccessible 3rd party/partner systems and services
- Scheduling constraints that limit testing to inadequate and inconvenient windows
- Missing/unstable components
- Evolving development environments

Without access to a reliable test environment, organizations risk:

- Brand erosion as faulty software drives away customers
- Time-to-market delays that diminish market share
- Exposure to legal liability associated with application failure (security, reliability, performance)

Test earlier, faster, more completely with Service Virtualization

Service virtualization delivers a simulated test environment that allows you to test earlier, faster and more completely. The result:

- **OpEx reduction** by cutting wait time, configuration time & access fees
- **CapEx reduction** by reducing the need for hardware, licenses & lab infrastructure
- **Risk reduction** by enabling teams to test earlier, faster & more completely
- **Incremental top-line revenue** by accelerating innovation and time to market

Service virtualization solutions are commonly applied in the following situations:

- **Agile and parallel development**: To avoid the process bottlenecks that commonly occur when teams are developing/testing interconnected system components in parallel
- **Performance testing**: To rapidly configure realistic and consistent transaction performance from dependent system components as well as avoid the often-exorbitant access fees and wait times associated with performance testing
- **Mobile testing**: To simulate the behavior of both internal networks and telecom networks that are outside the control of developers and testers
- **End-to-end functional testing**: To provide access to all the distributed system components involved in the end-to-end transaction—with the necessary configurations—whenever the team is ready to test
Real Results

Parasoft Service Virtualization customer successes include:

- **Communications**: Runs earlier, more comprehensive performance testing by eliminating database dependencies
- **Financial**: Virtualizes mainframe behavior to provide stable, “always on” environments for partner integration
- **Retail**: Rapidly prototypes functionality in order to accelerate feedback cycles & reduce time to market
- **Hospitality**: Accelerates parallel development of highly-interconnected components for a complex distributed system
- **Medical Insurance**: Reduces test data configuration time from weeks to hours
- **Financial**: Increases the scope & frequency of testing without third-party access fees
- **Insurance**: Reduces costs by eliminating dependencies on numerous back-end systems for each of their test environments
- **Utilities**: Emulates a not-yet-implemented API for partner integration & automates the partner certification process

Key Features

- Graphical, environment-driven approach to simulation and provisioning
- Simple to configure and provision environments for different test scenarios
- Intuitive interface for rapidly simulating complex “what if” scenarios (security, performance, reliability, failover)
- Broad, flexible support for protocols, transports, message formats
- Intelligent updating keeps virtual assets in sync with evolving systems
- Seamless integration with existing dev/test ecosystems

Parasoft Service Virtualization

Parasoft Service Virtualization helps development and QA teams access the complete, realistic test environments needed to develop or test an application.

Capture or Model Behavior

Real system behavior is captured— 1) Using monitors to record live transaction details 2) By analyzing transaction logs, or 3) By modeling behavior from a simple interface.

Configure

The resulting “virtual asset” can be extended with specific response parameters for performance, test data, and response logic. Parasoft makes it simple to mimic conditions for more complete testing, including “what-if”, security, concurrency, failover and error scenarios.

Test

From an intuitive graphical interface, users can rapidly access the exact test environment needed.

The simulated test environments are available 24/7 for automated or manual testing with any testing framework.

Team members can create a simulated test environment in less than a minute, then immediately start defining and executing tests against the appropriate test environment configurations.

Beyond “Shift Left”

The industry is beginning to recognize service virtualization as a valuable way to “shift left” testing: allowing testing to begin earlier in each iteration.

Parasoft takes “shift left” to the next level. As Parasoft’s Service Virtualization helps you start testing earlier, our Development Testing platform actually reduces the amount of defects that are injected into the software. This means that you can not only test earlier—you can also test less.

This unified approach reduces an organization’s exposure to application security, performance, and reliability risks—and at the same time, shrinks the length of each iteration. The result: significantly faster time to market with better-quality deliverables.