

INFRASTRUCTURE TESTING SERVICES

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IT Infrastructure that includes software, hardware and networks is the backbone of organizations. It enables business to achieve goals, financial targets and profitability. Organizations spend millions of dollars to ensure their business applications are tested to perfection. Strangely though, the underlying infrastructure that hosts and delivers these applications is rarely tested and mostly taken for granted. In this digital age, infrastructure testing needs to be given the importance it deserves as part of the

overall release and test cycles.

Organizations today promise their customers superior service and enhanced product efficiency. To achieve this, IT delivery engines must be robust and scalable. It is therefore critical to ensure that IT applications and the underlying infrastructure are tuned to deliver on performance, scalability, reliability, and availability.

In these times, the cost of unplanned outages and downtime is very high. This

is especially true of the financial, retail and healthcare sectors where organizations rely heavily on technology to ensure anywhere, anytime availability. The core objective of testing IT infrastructure is to mitigate the risk of failure or unplanned outages. This can help avoid tangible losses in the form of lost revenue or legal compliance and intangible losses such as customer dissatisfaction and adverse impact on brand image.

Why infrastructure testing is needed

Infrastructure acquisition

- New infrastructure design and build
- New infrastructure functionality and integration
- New scalable infrastructure is planned

Infrastructure migration

- Standardisation/consolidation
- Migration – infrastructure, application
- Data center migration
- Database migration

Infrastructure BAU changes

- Environment provisioning
- Patch upgrades and updates
- OS or database upgrades
- Environment standardization

How Infosys is addressing industry challenges

Infosys Infrastructure Testing Services is an integrated offering that helps enterprises test and validate infrastructure components. Based on proven methodologies and approaches for validation and assurance, this solution provides a comprehensive range of services for enterprise infrastructure testing across industries.

Our testing solution includes numerous Infosys tools and accelerators that verify

and validate the underlying infrastructure. This enables IT teams to detect defects early on during the testing lifecycle. Organizations can also use this solution to validate the business readiness and performance of any IT infrastructure responsible for deploying changes such as data center consolidation, virtualization and technology upgrades. This comprehensive solution goes well beyond reducing downtime to improving

the reliability, accessibility, security, and performance of the entire organizational IT infrastructure.

Infosys offers a wide range of services for infrastructure testing that cover the complete spectrum of industry requirements while aligning with the infrastructure testing needs of each enterprise.

Infrastructure acquisition validation

- New infrastructure build validation
- New infrastructure functionality and integration validation
- Validation for new scalable infrastructure implementations

Infrastructure migration validation

- Validation for infrastructure refresh/upgrades
- Migration validation - infrastructure, application

Data center migration validation

- Validation of various DC migration programs
- Physical-2-Physical, Physical-2-Virtual, Virtual-to-Virtual migration validation

OS upgrade testing

- H/W and application compatibility testing
- Patching and upgrade testing
- Standard operating environment image validation

Cloud adoption/ adaptation validation

- Cloud readiness testing
- Testing the cloud build-out (on premises/virtual private cloud)
- Testing the migration to cloud (public)

Operational acceptance/ readiness testing

- Non-functional requirement validation before go-live
- Operational requirement validation
- Verify failover and fallbacks
- Automate run book

Resilience and disaster recovery testing

- Testing for business systems resilience
- System resilience tests
- Process resilience tests
- Frequent system compliance reviews/ tests
- Verify the RPO, RTO and ROL post invocation

Service management testing

- Automate the E2E workflow for key processes such as Incident/change/access/knowledge, problem management, alerts, etc. and validate based on different roles
- Enhance and maintain the test suite for any new release
- Test migration and integration with third party tools

Office 365 testing

- O365 configuration validation
- Integration testing with other systems (on-premise, mobile devices)
- Active directory integration testing
- Role-based access control testing

Infosys infrastructure testing approach

Infrastructure Planning

- Validate AS-IS and TO-BE state
- Identify compatibility issues
- Gather baseline performance
- Identify infrastructure tests

Infrastructure Integration

- Validate infrastructure integration
- Server build configuration testing
- Storage configuration testing
- Database configuration testing

Infrastructure Deployment

- Middleware connectivity
- Configuration validation
- Cluster configuration testing
- Network testing
- Firewall testing
- Load balancer testing

Infrastructure Monitoring and Maintenance

- Operational acceptance/ readiness testing
- Availability testing
- Backup and recovery testing
- Service integration testing



Solution features

By leveraging global best practices and our extensive experience across infrastructure management and testing services, Infosys has developed a set of pre-built solutions that streamline testing.


Infrastructure Testing Services for Integrated Assurance (ITSIA)	ITSIA is a test solution for integrated and reliable infrastructure testing enabling end-to-end business and technology service assurance. Its re-usable test solution packs enable effort avoidance during test preparation and execution phases
Build Validation and Analysis Tool	An easy-to-operate, desktop-based application to perform automated configuration validation between different systems <ul style="list-style-type: none"> Eliminates manual check for build correctness 90% faster time-to-market – From 1 person day to 15 minutes
Infosys Infrastructure Readiness Automation Tool	This tool validates connectivity, configuration of servers, middleware components, and associated interfaces <ul style="list-style-type: none"> Single touch automation ensuring 100% test coverage Total elimination of planning and execution efforts with pre-built scenarios 90% faster time to market – From 3 person days to 3 hours
Infrastructure Validation Toolkit	This tool validates and enables comparison of system performance of infrastructure without application and data. It further helps baseline performance parameters for pre- and post-validation during migration and upgrade activities <ul style="list-style-type: none"> Reduces time for infrastructure validation by 25%

Solution Benefits

Cost/effort saving up to 20%

30-40% reduced production outages

Vendor Alliances



Benefits

40% improvement in defect detection prior to production implementation

Accelerated test execution, enabling early go-live – 20% reuse and tool optimization

Success stories

- Australian bank improves infrastructure quality across lines of business (LOBs)** – Infosys Infrastructure Testing Services for Integrated Assurance (ITSIA) enabled identifying infrastructure defects early in the testing cycle across on-premise and cloud infrastructure programs. The solution greatly enhanced the quality of infrastructure with zero defect slippage to production. It further reduced test cycle time by 50%, resulting in annual cost savings of US \$300,000 through test automation.
- American financial services company saves US \$12 million through infrastructure validation** – Infosys set up the infrastructure testing function for a leading American post-trade financial services company that provides clearing and settlement services for financial markets. By performing infrastructure testing early in the lifecycle, Infosys uncovered more than 4,000 defects across four years and over 200 projects. This resulted in savings of US \$12M by preventing defects/incidents from going into production environment.

Infosys can help you achieve reliable and defect-free infrastructure at lower TCO. Connect with IVS_marketing@infosys.com to know more.

Infosys Cobalt is a set of services, solutions and platforms for enterprises to accelerate their cloud journey. It offers over 14,000 cloud assets, over 200 industry cloud solution blueprints and a thriving community of cloud business and technology practitioners to drive increased business value. With Infosys Cobalt, regulatory and security compliance, along with technical and financial governance comes baked into every solution delivered.

For more information, contact askus@infosys.com



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