

# Application Performance & Tuning Services

## CGI Performance Engineering Domain

At CGI, we recognize there are many layers to performance engineering and testing. Our approach starts with business objectives for performance to determine the types and depth of testing required to validate the objectives.

- **Load Testing**
  - > Expected production loads; measuring response times and error rates
- **Stress Testing**
  - > Above expected loads to failing point; determine headroom and ability to soft-land
- **Reliability Testing**
  - > Endurance; under expected load for extended periods
- **Volume Testing**
  - > Batch or messaging throughput capability over time
- **Scalability Testing**
  - > Determine how linear the application can scale compared to baselines

## Our Services

- Performance Testing & Validation
- Performance Testing Infrastructure Setup & Support
- Root-cause Analysis & Deep Diagnostics
- Production Performance Monitoring
- Performance Testing Auditing & Consulting

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## APPLICATION PERFORMANCE

**“New research suggests that, for 42% of organizations, the cost of downtime is above \$100,000 an hour.”**

**- Forrester Research**

**“More than 80% of application performance and availability failure are blamed on network problems, but the network represents less than 20% of the root cause.”**

**- Gartner**

Increased business process automation, technology integration & diversity, compliance & governance, and above all – market agility – are underpinning the need for high performance and adaptive applications. Increasingly, the more successful organizations are a direct result of the quality, performance and security of their business applications. Application Performance = Business Performance.

Users (customers, employees and partners) are driving increased expectations in human-computer interface response times. Application responsiveness has become a competitive advantage, a way to prevent “the competition is two clicks away” and a way to increase brand value.

## How CGI can Help

We are a leading provider of performance testing services with an extensive track record of helping over 130 enterprise-scale performance testing projects meet their organization's business performance objectives.

Our experience encompasses clients in all of our industry domains (telecom & utilities, finance & insurance, government, and manufacturing/retail & distribution) and virtually every major O/S and technology platform. Our short list would include W2K3, AIX, HP-UX, Solaris, Linux, MVS, z/OS, SQL 2005, Oracle 8.x-10.x, MySQL, DB2, Java, J2EE, .NET, WebLogic, WebSphere, Apache/Tomcat, IIS 5.0 & 6.0, IBM MQSeries, Vitria, Citrix, VmWare, SAP, Siebel, Peoplesoft, Amdocs and Ariba.

Our distributed Performance Testing teams are supported and led by our Testing Centre of Excellence (COE). Based on industry and vendor best reference practices, we have developed and matured a field-proven methodology for performance testing. Active industry collaboration, with our peers and technology vendors, ensures our processes continually improve and adapt to the rapid advances in application technology.

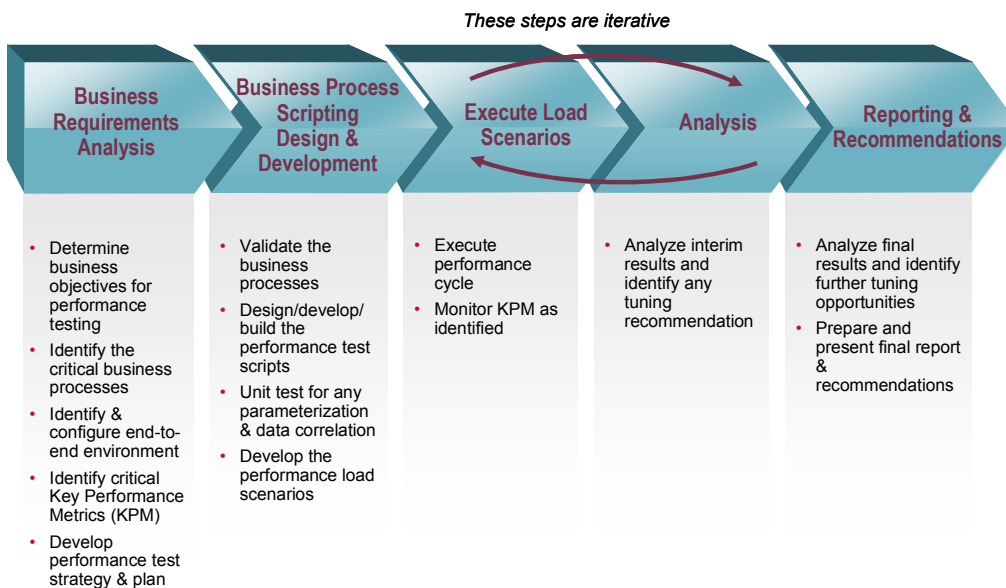
Our toolkit includes the leading industry performance testing, probing and monitoring tools. Our Performance Engineers are exceptionally qualified and dedicated to making our clients' projects successful. *At CGI, we don't just test load, we help engineer applications to perform.*

## Our Approach

Our overall objective is to help ensure the performance of our clients' applications meet their organization's business requirements and any risks of performance failures are identified and mitigated. We do this by using advanced tools and workload modeling to produce simulated, realistic user load conditions, typical user behaviour and typical business processes. Performance testing can be destructive so it is best performed in environments dedicated to the task.

Our approach follows a five step process, and the first step – Understanding Requirements – is the most important. We work closely with our clients so that we can clearly understand their business requirements and performance needs. We use this input to develop our workload model and design and script business processes for automated testing. During our iterative cycles of load execution and detailed analysis, our goals are to identify bottlenecks, validate throughput and improve performance. Once we have confirmed performance objectives have been met, we provide a final report of results and recommendations.

*Confidence and peace of mind: two key satisfaction indicators we look for in our clients, to know we have accomplished our mission.*



## Our Commitment

At CGI, we believe in implementing technology that transforms our clients' business environments. That's why we offer our services to a focused set of industries where we have developed deep experience and expertise. We understand our clients' business realities and have the know-how and solutions needed to advance their business goals.

## Tool Experience

*We have deep experience and vendor certifications in industry-leading performance testing and monitoring tools:*

- HP/Mercury LoadRunner, Performance Center, SiteScope
  - Compuware QALoad
  - IBM Rational PerformanceTester
  - Radview Webload
  - Empirix E-load
  - BMC Appsign
  - Quest (Sitraka) Jprobe
  - Compuware Vantage Suite
  - Opensource
- > OpenSTA, Grinder, nmon*

## CTQ

*CGI's Centre for Testing and Quality delivers comprehensive, end-to-end testing solutions. Our testing methodology is derived from the industry's best practices and refined from our collective client experience in all areas of system development, integration and operations.*