Testing Platform-as-a-Service

Get Significant Application Quality Improvement without Major Investment

Performance driven. Quality assured.
Application testing can get expensive. In order to thoroughly validate software application functionality, performance and security, organizations typically have to make sizable investments – not only in testing tools, but also in provisioning the test environments and maintaining essential infrastructure.

Add to this the expense of finding the right people and developing the skill set required to work with today’s complex applications and technologies, and the cost of testing can become prohibitively high.

With ever-growing demands for higher application quality and faster delivery times, companies can’t afford not to invest in quality. However, even after purchasing the best-of-breed tools and hardware, many companies frequently find themselves with redundant testing resources – often centered on individual projects – unable to share tools, resources, best practices and assets. All too often, when a project comes to a close, tools go unused and acquired knowledge is lost.

Today’s IT organizations need an innovative and agile solution that will allow them to bring in testing tools, environments, knowledge and resources without amplifying the cost of delivery and jeopardizing the time-to-market.

Our Testing Platform-as-a-Service Solution

New technologies such as cloud computing now make it possible for organizations to not only reduce the cost of quality by purchasing testing services on-demand, but also push up standards.

Our next-generation Test Platform-as-a-Service (TPaaS) developed by the Capgemini Group – incorporating the expertise of both Capgemini and Sogeti – is an innovative solution that delivers the required testing services, platforms, expertise and resources for any type of application or project by leveraging cloud technology.

Using Capgemini’s own secure cloud in Europe, we offer a flexible subscription model that includes bundled hardware, HP Quality Management tool licenses and immediate access to a shared pool of skilled and configurable testing resources, available on-demand.

Capgemini Group’s extensive expertise and years of experience developing innovative, business-driven quality assurance practices and testing services makes us an ideal testing partner for any organization looking to improve application quality without requiring large upfront investments, while providing security and reliability on our private cloud.
Evolution of Testing-Platform-As-A-Service

With the emergence of TPaaS, testing can now be provided with reduced costs, greater agility, in-built quality and flexibility, see Figure 1 below:

![Commentary](image)

- Initially, testing was an in-house competency, the domain of specialists with specialized testing tools and process methodologies. This approach provided excellent control, but was expensive and time consuming.
- Resource augmentation approaches helped cut total costs, but also led to inconsistent process methodologies and high maintenance requirements.
- The Managed Testing or outsourcing approach also helped control costs, but limited the client’s flexibility with long-term contract requirements.
- Equally important, managed testing services typically did not offer service-level agreements (SLAs), so the business outcome was not predictable.
- Now organizations are looking for greater flexibility, agility, and reduced costs in their testing processes. To deliver these benefits, the next-generation testing services delivery model called Testing-as-a-Service (TaaS) has been introduced.

Figure 1: With the emergence of TPaaS, testing is now provided with greater flexibility, agility, and reduced costs

Cut Costs in the Cloud

Our clients can reduce their total cost of ownership by eliminating up-front investment in testing assets and achieve a faster return on their investment in application development and deployment.

They can also significantly reduce not only the overall number of resources required to manage existing testing environments resources but also the costs associated with recruitment and training.

Pay for what you use – Nothing else

With TPaaS, the testing environment is delivered remotely through secure networks, reducing the need for onsite hardware installation, administration and maintenance.

So clients pay for the specific testing and access to dedicated hardware platforms and industry-leading software licenses – but only when they need them. This enables organizations to move some of their test costs from a Capex to Opex model and provide a clearer and uniform understanding of the costs of quality.

Minimize Risk to Maximize Success

Complex, distributed applications and fast-changing modern technologies demand a comprehensive approach to testing. Application quality is often tied directly to business results, and any defects that slip into production, service interruptions, scalability problems or security breaches can spell disastrous consequences for the company’s core processes.
A Testing Platform-as-a-Service model can help ensure that all key IT applications undergo careful quality assessment before deployment, and that they remain reliable in production.

Our TPaaS and other related services deliver all the essential elements of quality, including test management, functional, regression, security and performance testing and defect management, with significant levels of test automation.

Combined, they result in applications can be launched more quickly to market at lower business and technical risks.

**Quality built in**

In addition to rapid provisioning and fast return on investment, a TPaaS model offers companies a head start in building a consistent and centralized approach to Quality Management, one that is focused on standards, visibility, best practices, measurement and governance. This means minimizing an organization’s learning curve for delivering and maintaining the highest level of application quality, providing ‘speed to value’.

Our services promote the standardization of testing practices through the use of our own consistent and repeatable testing methodologies (the industry standard for structured testing, TMap® and TPI®/Quality BluePrint)—built up over more than two decades.

With proven testing frameworks and templates, we can help organizations develop the basic structure for ongoing quality practices.

Generally, most companies choose to maintain some testing function in-house, and supplement it with the TPaaS model for projects requiring specialized product and technology skills, complex test environments or large resource pools.

The entire organization can benefit from such an arrangement—acquiring new knowledge, improving collaboration between development, testing and the business, and laying the foundation for a standards-based approach to quality.

**A more consistent integrated user experience**

Bringing together infrastructure, test tools and test resources, this service ensures our clients have just ‘one hand to shake’ ensuring a more consistent and seamless customer experience than dealing with multiple vendors.

This partnership approach with a single point of accountability for a comprehensive set of end-to-end activities enables organizations to bypass the usual maze of supplier agreements.

**A Flexible Service Package to Fit Your Needs**

TPaaS can be purchased as a standalone service or in combination with other testing services and solutions. Some companies will choose TPaaS for a single project, while others may find it beneficial to engage the Capgemini Group in a longer-term quality management initiative.

Not every client has the same needs, so we have developed two kinds of service to meet a range of business requirements, see Figure 2.
<table>
<thead>
<tr>
<th>SERVICE TASKS</th>
<th>TYPE OF SERVICE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Base Service</td>
</tr>
<tr>
<td>Hosting and support of base infrastructure including datacenter monitoring and operations</td>
<td>✓</td>
</tr>
<tr>
<td>Test platform provisioning and management, including setup of network connectivity and test tools deployment</td>
<td>✓</td>
</tr>
<tr>
<td>Creation and maintenance of standard images, accounts and identities and cloud account management</td>
<td>✓</td>
</tr>
<tr>
<td>Infrastructure support services</td>
<td>✓</td>
</tr>
<tr>
<td>Licensing and reporting (monitor deployed virtual machines, OS and test tools), including usage, service levels and billing data related to the test platform</td>
<td>✓</td>
</tr>
<tr>
<td>Strong governance and outcome-based delivery to ensure senior management focus and quality of services</td>
<td>✓</td>
</tr>
<tr>
<td>Test management services*</td>
<td>✓</td>
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<tr>
<td>Defect management services *</td>
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<td>Performance testing services*</td>
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<td>Test automation services*</td>
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<td>Ongoing user support services *</td>
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<tr>
<td>Testing consulting services and Testing Center of Excellence (TCoE) support *</td>
<td>✓</td>
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</tbody>
</table>

* Contact a Capgemini or Sogeti sales representative for additional information on these services

Figure 2: TPaaS Services At-a-Glance

**Base Service: Stand-alone Testing Platform**

This service is best suited to companies who need immediate access to a test environment and are planning to use in-house staff to manage and perform all testing activities. The Base Service offers the following benefits:

- 24x7 access to cloud-based test infrastructure and HP testing tools, set up in accordance with agreed-upon service level agreements (SLAs)
- Best-of-breed cloud technology, hosted in a secure data center – providing the highest levels of data security
- Full-service maintenance and upgrades on the tools and platform used for the project
- Modular platform, offering flexibility and scalability to accommodate changes throughout the project.
Advanced Service: Complete Testing Services and Solutions

For an organization looking for complete end-to-end testing service and an ongoing commitment to application quality, the Advanced Service offers the same benefits of the Base Service, including the provisioning of testing platform, plus the following benefits:

- Continuous engagement with the customer's entire organization – including senior management – to drive adoption of higher quality standards and practices
- Introduction of standards-based quality practices and implementation of governance structure for the complete application delivery lifecycle
- Full service testing solutions featuring modular approach and high levels of test automation, improving efficiency, coverage and asset reusability
- Consumption-based pricing and predictable outcomes.

Application Areas

Our two services are appropriate for the following situations:

- Business applications
- ERP, CRM, BI, Infra
- Embedded software
- New implementations
- Maintenance and Migrations.

Services can also be embedded in long-term MTS contracts, with these components:

- Multiple years’ service contract
- SLA driven governance
- Dedicated core test teams and flexible capacity
- Risk/Reward based pricing.

Conclusion – Instant deployable test infrastructure

The emergence of Cloud offers a compelling Testing value proposition: speed to market, agility to bring forward or retire services, and the chance to move expenditure out of CapEx and into OpEx. Our Testing Platform-as-a-Service, using our own Capgemini Cloud, offers convenient on-demand access to a shared pool of configurable testing resources. Our package of hardware, test tools and pool of expert resources ensures a significant improvement in application quality without major investment.
8 reasons to call on Capgemini Group

Our Testing Platform-as-a-Service offers these key benefits:

1. Eliminate up-front investment in hardware procurement, management and maintenance, as well as software licensing and support costs, and achieve fast ROI on application investments. Capgemini cloud capability is based around blade hardware (IBM), mass storage (EMC), and VMWare cloud management software (vCloud)
2. Significantly reduce investment in resources required to manage existing testing environments
3. Achieve faster time-to-market through rapid procurement and project set-up & execution
4. Reduce business risk and deliver better quality applications faster by using HP’s leading Quality Management solutions supported by experienced global staff
5. Promote standardization of testing practices by using proven testing frameworks, templates and best practices
6. Increase efficiency and team collaboration through Internet-based access and interoperability
7. Ensure data integrity and ‘anytime, anywhere’ accessibility through enterprise-class secure, available and redundant infrastructure with 24x7 operations and client-centric service
8. Availability of ongoing guidance from testing experts to help advance in-house testing expertise and governance processes.

Further information on Testing on the Cloud

- **TMap NEXT® – Testing Clouds e-publication** – outlines how structured testing – using TMap® – can be leveraged within a cloud environment. It reviews in detail the framework and importance of testing on the cloud, testing cloud strategy (in, on or within the cloud) and the factors to be considered for migrating and managing applications onto the cloud, such as security, data integrity, privacy issues, data recovery and performance. Available from www.tmapbooks.com.

- **Testing on the Cloud – The Potential of Software Testing Using Cloud Computing.** This white paper looks at how testing can be revolutionized through the evolving Testing Cloud models, outlines the potential benefits and evaluates the challenges, the services being developed and provides an outlook for Cloud Testing. Download from our websites.
About Capgemini and Sogeti

With around 120,000 people in 40 countries, The Capgemini Group is one of the world’s foremost providers of consulting, technology and outsourcing services. The Group reported 2011 global revenues of EUR 9.7 billion. Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model. Sogeti, its wholly-owned subsidiary, is a leading provider of local professional services, bringing together more than 20,000 professionals in 15 countries and is present in over 100 locations in Europe, the US and India.

Capgemini’s Infrastructure Services have developed secure Cloud-based services, at the IaaS, PaaS and SaaS levels, based on its RightCloud model, to enable organizations to achieve their business goals, leveraging the latest developments in Cloud computing.

Capgemini and Sogeti have created one of the largest dedicated testing practices in the world, with over 9,500 test professionals and a further 14,500 application specialists, notably through a common center of excellence with testing specialists developed in India. Capgemini and Sogeti have developed innovative, business-driven quality assurance (QA) and testing services, combining best-in-breed testing methodologies (TMap® and TPI®).

www.capgemini.com/testing
www.sogeti.com/testing

Contacts

For more information about how our Testing Platform as a Service can help your organization achieve your testing and QA goals, please contact your local Capgemini or Sogeti testing representative or our Global Testing Platform Team:

Rakesh Jain
TPaaS Lead, Global Service Line Infrastructure Cloud Services
E: rakesh.k.jain@capgemini.com

Robert Jackson
Director Architecture, Global Service Line Infrastructure Cloud Services
E: robert.jackson@capgemini.com

Nico Steenkamp
Director Portfolio, Global Service Line Infrastructure Cloud Services
E: nico.steenkamp@capgemini.com

Mark Buenen
Vice-President, Global Service Line Testing, Europe and Brazil
E: mark.buenen@sogeti.com

Charlie Li
Vice-President, Global Service Line Testing, North America and APAC
E: charlie.li@capgemini.com

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