Outsourced software quality has undergone a metamorphosis owing to evolving customer expectations and dynamic business environment. The expectations of a customer from a test outsourcing partner has evolved from augmenting execution capacity to adding business value. Adoption of complex technologies has stirred up the need for partnership-driven outsourcing engagements. Newer technologies such as mobility and cloud coupled with growing need of social platforms and analytics have impended fundamental changes in the testing and QA strategies. Customers today expect QA partners to be advisors to deliver best-in-class software quality. Industry-leading QA processes, ownership of outcomes, business flexibility, cost efficiency, and delivery excellence have emerged as the key pillars for competitive differentiation.

Adoption of lean models to avoid waste in QA processes, scientific methods for estimation and design, risk-based approaches to QA, and model-based testing have largely enabled QA teams to assure software quality at faster rates and optimized costs. Today, we also witness QA teams adopting virtualization techniques and cloud to accelerate build to deploy cycles. Companies have adopted new-age approaches such as Agile for software development and testing. QA teams are increasingly using automation techniques to deliver higher efficiencies. Organizations are also focusing to test their applications on non-functional areas such as performance, security and usability. A wide variety of tools and techniques are available in the testing and QA market today that enables real-time performance validation in addition to simulated loads.

Quality Engineering & Assurance Suite

- System and Integration Testing
- User Acceptance
- Test Automation
- Performance, Security and Usability Testing
- Test Data Management
- Package Validation

- QA Consulting
- Quality Engineering
- Test Environment Management
- Testing Tools Management

- On-demand Test services
- Mobility Assurance
- Cloud Assurance
- Big Data Testing
- Business Process Validation
- Business Assurance Testing

Figure: 1

Solutions Overview | May 2016
**The Differentiators**

Aspects that differentiate Cognizant from against completion include:

- **Best-in-class quality**: Cognizant’s vision for its customers is to establish and benchmark its QA function as Best-in-class (BIC) in the industry. BIC quality engagement involves transforming the QA function to deliver business objectives of rapidly launching products and services, creating competitive differentiation, and reducing cost of quality. The BIC transformation to deliver world-leading quality is achieved by implementing:
  - Integrated automation.
  - World-class operation model.
  - Intelligent test delivery platforms.
  - User advocacy.
  - Quality throughout SDLC, and
  - Optimised and on-demand environments

- **Cost efficiency**: By focusing on efficient resource models, scientific techniques of improving productivity, tools and IPs, virtualization, and industry-proven QA methodology, Cognizant is able to deliver higher cost efficiency thereby ensuring higher cost savings.

- **Delivery excellence**: By setting industry benchmarks through benchmarking, Cognizant ensures that the service provided is truly best-in-class. By applying a metrics-driven approach to QA program management, Cognizant’s intelligent delivery ecosystem ensures complete transparency in all engagements thereby assuring delivery and facilitating improved time to market. Cognizant’s proprietary on-demand service delivery platform can quickly.

- **Alliances**: Cognizant has invested in building strategic alliances with industry-leading tools, cloud and package vendors. Our strategic relationship has enabled us to share knowledge about industry trends and researches that aid joint development of innovative solutions to build and deliver significant value to our clients.

At Cognizant, we have integrated our service lines through bundling QA environments and bundling test data within the QA services offered. Leveraging Cognizant’s cloud to deploy and deliver managed testing on cloud, we have institutionalized on fastest, Cognizant’s on-demand and online ‘as-a-service’ platform that helps faster provisioning of testing services with lower capital cost. Cognizant’s proprietary QA tools and frameworks and solution accelerators are available through this platform that will help deliver higher efficiencies and on-demand consumption.

Cognizant has refined and categorized its service lines to address clients’ QA challenges of the present whilst preparing them for future. These categories include:

- **Assurance services**: Cognizant brings in a combination of domain and QA expertise to ensure that systems meet their functional requirements. Services in this category enable clients assess the business readiness of applications by validating the functional and non-functional aspects of the applications. These include system and system integration testing, test automation, performance testing, user acceptance, package testing, compliance testing, and business process validation. Our QA professionals have in-depth understanding of business process to validate suitability of system under test.

- **Specialized services**: These are a spectrum of services and techniques that complement the QA efforts across the development lifecycle. These include integrated automation to achieve accelerated testing and application maintenance support services such as test data management. Cognizant has established in-house centres of excellence (CoEs) around niche areas including DW/BI, SOA testing, and IVR testing to address client QA challenges in these specialized areas.

- **Infrastructure services**: Cognizant’s QE&A practice works closely with horizontal BUs within Cognizant, such as IT Infrastructure Services and Global Technology Office, to build and offer services that can help clients reduce spend around QA infrastructure (tools and environments).

- **Consulting services**: Whether creating a long-term roadmap for software quality, or developing detailed process improvements, our proven methodologies, best-practices and structured evaluation framework have helped us deliver thorough consulting engagements a testing capability fit for business. Consulting is one of the star offerings. Cognizant has consulted clients in areas such as process, methods, tools, and infrastructure.
• **Engineering services & mobility:** At Cognizant, we have invested to build expertise around service lines that will help our clients enhance their business reach and improve end-user experience. This includes quality engineering (shift-left services), performance engineering, mobile enablement, devices testing, and product certifications.

• **QA Products:** To complement our efforts in making QA more sophisticated, we have invested in building IPs that can potentially transform the way QA services are demanded and consumed today. **Fastest** is Cognizant’s on-demand service delivery platform that enables clients to order and consume QA services online. **ADPART** is another of Cognizant’s proprietary framework that interlinks business process with testing and automates the entire test design phase with just a **click**. We have also built IPs in the areas of test data management, mobile testing, and QA analytics to enable intelligent reporting.

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### Assuring Quality Guardianship through Best-in-Class Results

To excel in today’s digital economy, leading businesses are reinventing their operating models and core processes with superior solutions. Cognizant’s future-next solutions in the QA space enables businesses to reimagine the future by reinventing ways of addressing current day quality challenges.

- Quality partner for a merger between two of the largest banks in the globe and is anchoring their QA transformation program since 2012
- Helped over 100 clients establish testing centers of excellence (TCoEs) and managed enterprise-wide QA activities
- Offering on-demand services to 84 clients from the retail, travel and hospitality, technology and pharma industries.
- Rendering QA services for product companies such as SAP, Oracle and also partnering with them in package implementations

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### About Cognizant

Cognizant (NASDAQ: CTSH) is a leading provider of information technology, consulting, and business process outsourcing services, dedicated to helping the world’s leading companies build stronger businesses. Headquartered in Teaneck, New Jersey (U.S.), Cognizant combines a passion for client satisfaction, technology innovation, deep industry and business process expertise, and a global, collaborative workforce that embodies the future of work.

With over 100 global development and delivery centers worldwide and approximately 233,000 employees as of March 31, 2016, Cognizant is a member of the NASDAQ-100, the S&P 500, the Forbes Global 2000, and the Fortune 500 and is ranked among the top performing and fastest growing companies in the world.

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