Background of the research

- Increased adoption of agile, DevOps, and next-generation technologies such as AR/VR, AI/ML, and IoT has changed the applications testing landscape. Enterprises are no longer looking for monthly or quarterly releases, they are aiming for tens or hundreds of releases daily or weekly, which means testing cannot be a later stage activity, but has to transform itself into an engineering practice. Thus, service providers are innovating at a faster pace with focus on extreme automation and embedding AI/ML, thus optimizing the testing process.

- COVID-19 brought unprecedented customer demands and the need for scalability, which drove the Quality Assurance (QA) service providers to embrace non-functional testing such as security testing, performance testing, accessibility, and compatibility testing in their portfolio. Crowdsourced QA testing was also among those testing services, which experienced sufficient traction to accommodate various use cases such as localization testing and even security testing.

- This need gave rise to a talent gap, and service providers had to train their workforce remotely to meet the demand for next-generation technologies, and increase investments in talent to transform into the Software Development Engineer in Test (SDET) model and support the change happening in the industry.

The assessment is based on Everest Group’s annual RFI process conducted over Q1 2021, interactions with leading QA service providers, and analysis of the QA services market.

This report includes the profiles of the following 33 leading ABC service providers featured on the Quality Assurance services (QA) PEAK Matrix:

- **Leaders:** Accenture, Capgemini, Cognizant, HCL Technologies, IBM, Infosys, TCS, and Wipro

- **Major Contenders:** Atos, Cigniti, Cybage, DXC Technology, EPAM, Infogain, LTI, Mindtree, QA Consultants, Qualitest, QualityKiosk, Softtek, Tavant, Tech Mahindra, TestingXperts, UST, ValueLabs, Virtusa, and Zensar

- **Aspirants:** Aspire Systems, Jade Global, Mastek, Mphasis, Sonata Software, and TO THE NEW

Scope of this report:

- Geography: Global
- Service providers: 33
- Services: Quality assurance services
Quality assurance services PEAK Matrix® characteristics

Leaders
Accenture, Capgemini, Cognizant, HCL Technologies, IBM, Infosys, TCS, and Wipro
- Leaders have a holistic portfolio of services including traditional and next-generation testing services with a focus on extreme automation and investments around developing domain capabilities and solutions to cater specific needs to critical industries. There is a strong focus on themes such as non-functional testing, crowdsourced testing beyond the user acceptance scenario, chaos testing, low-code/no-code testing tools, test data management, and test environment management
- They have gained the trust of the enterprises with their technical expertise and co-innovation efforts through continued investments in partnerships and talent development
- Leaders are facing competition from Major Contenders due to their active investments and innovation in next-generation Quality Engineering. Leaders need to focus on building innovative end-to-end solutions and services across next-generation themes and innovate in the engagement models with their proven technical and domain expertise

Major Contenders
Atos, Cogniti, Cybage, DXC Technology, EPAM, Infogain, LTI, Mindtree, QA Consultants, Qualitest, QualityKiosk, Softtek, Tavant, Tech Mahindra, TestingXperts, UST, ValueLabs, Virtusa, and Zensar
- Major Contenders are a mix of end-to-end QA service providers, digital engineering firms, and independent QA service providers
- They are making active strides in investments in next-generation services and developing platforms leveraging cloud, AI/ML, and automation
- They have demonstrated meaningful capabilities and supported enterprises in moving toward Industry 4.0 by investing in key partnerships and redefining quality assurance for themselves

Aspirants
Aspire Systems, Jade Global, Mastek, Mphasis, Sonata Software, and TO THE NEW
- The Aspirants segment must focus on increasing depth and breadth of the services by forging strategic partnerships with leading technology vendors and proactively engage with enterprises to innovate
- They are actively investing in talent upskilling and incorporating next-generation QA in their portfolio and balancing their portfolio across regions and industries
Everest Group PEAK Matrix®
Enterprise Quality Assurance (QA) Services PEAK Matrix® Assessment 2022 | Cognizant positioned as Leader

Everest Group Enterprise Quality Assurance (QA) Services PEAK Matrix® Assessment 2022¹

¹ Assessments for IBM exclude service provider inputs and are based on Everest Group’s proprietary Transaction Intelligence (TI) database, service provider public disclosures, and Everest Group’s interactions with buyers.

Cognizant | enterprise QA services profile (page 1 of 4)

Everest Group assessment – Leaders

<table>
<thead>
<tr>
<th>Market impact</th>
<th>Vision &amp; capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market adoption</td>
<td>Vision and strategy</td>
</tr>
<tr>
<td>Portfolio mix</td>
<td>Scope of services</td>
</tr>
<tr>
<td>Value delivered</td>
<td>Innovation &amp; investments</td>
</tr>
<tr>
<td>Overall</td>
<td>Delivery footprint</td>
</tr>
<tr>
<td>Overall</td>
<td>Overall</td>
</tr>
</tbody>
</table>

**Strengths**
- Cognizant has a wide portfolio of solutions covering next-generation QA, SaaS testing, and domain-specific solutions
- Clients have appreciated the depth of QA skills of its resources, and more specifically its domain knowledge, which is an outcome of its internal talent investments through dedicated technical partnerships and community initiatives
- Clients value its account management capabilities and leadership involvement in the engagements
- Clients value its thought leadership in the QA market, where Cognizant has positioned itself as a trusted QA partner

**Limitations**
- Clients expect Cognizant to demonstrate seamless communication and collaboration across various LoBs to derive meaningful value form the engagement
- Some clients have highlighted the need of more nearshore and onshore resources at more competitive pricing from Cognizant
- Attrition and talent retention-related issues at Cognizant have emerged as a key concern for clients
Cognizant | enterprise QA services profile (page 2 of 4)

Overview

Vision
Cognizant’s vision is to put quality at the forefront with an engineering mindset to achieve first time right for enterprises, as they modernize their core, build new business models, and reimagine customer experiences for success in digital.

Scope of services
Cognizant provides end-to-end QA services for core and next-generation applications to help clients succeed in digital. Cognizant leads with an advisory approach and embeds automation, AI and robotics in QA for quality at speed and first time right.

QA services revenue

<table>
<thead>
<tr>
<th>Revenue Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;US$200 million</td>
<td>Low (&lt;10%)</td>
</tr>
<tr>
<td>US$200-US$500 million</td>
<td>Medium (10-20%)</td>
</tr>
<tr>
<td>US$500 million-US$1 billion</td>
<td>High (&gt;20%)</td>
</tr>
<tr>
<td>&gt;US$1 billion</td>
<td></td>
</tr>
</tbody>
</table>

Adoption by function

<table>
<thead>
<tr>
<th>Function</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisory</td>
<td>Low (&lt;10%)</td>
</tr>
<tr>
<td>Implementation</td>
<td>Medium (10-20%)</td>
</tr>
<tr>
<td>End-to-end implementation</td>
<td>High (&gt;20%)</td>
</tr>
</tbody>
</table>

Adoption by industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking, insurance &amp; financial services</td>
<td>Low (&lt;10%)</td>
</tr>
<tr>
<td>Energy and utilities</td>
<td>Medium (10-20%)</td>
</tr>
<tr>
<td>Electronics, hi-tech, and technology</td>
<td>High (&gt;20%)</td>
</tr>
<tr>
<td>Healthcare and life sciences</td>
<td>Low (&lt;10%)</td>
</tr>
<tr>
<td>Telecom, media, and entertainment</td>
<td>Medium (10-20%)</td>
</tr>
<tr>
<td>Retail, distribution, and CPG</td>
<td>High (&gt;20%)</td>
</tr>
<tr>
<td>Public sector</td>
<td>Low (&lt;10%)</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Medium (10-20%)</td>
</tr>
<tr>
<td>Travel and transport</td>
<td>High (&gt;20%)</td>
</tr>
<tr>
<td>Others</td>
<td>Low (&lt;10%)</td>
</tr>
</tbody>
</table>

Adoption by geography

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>Low (&lt;10%)</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Medium (10-20%)</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>High (&gt;20%)</td>
</tr>
<tr>
<td>Middle East &amp; Africa</td>
<td>Low (&lt;10%)</td>
</tr>
<tr>
<td>Europe (excluding UK)</td>
<td>Medium (10-20%)</td>
</tr>
<tr>
<td>South America</td>
<td>High (&gt;20%)</td>
</tr>
</tbody>
</table>
## Offerings

### Proprietary solutions for QA services (representative list)

<table>
<thead>
<tr>
<th>Solution name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognizant Continuous Testing Platform</td>
<td>Delivers integrated, intelligent, and continuous QA in agile and DevOps</td>
</tr>
<tr>
<td>Robotic Test Automation</td>
<td>Provides automated testing of digital-physical interaction for IoT-based applications using collaborative robots</td>
</tr>
<tr>
<td>Cognizant Quality Insight Bots</td>
<td>Suite of AI/ML based bots that use analytics for automated test generation, test optimization, defect triaging and zero touch testing of industry-specific needs like video quality and regulatory compliance</td>
</tr>
</tbody>
</table>

### QA services partnerships (representative list)

<table>
<thead>
<tr>
<th>Partner name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tricentis</td>
<td>Leverage partnership for QA life cycle automation using Tricentis Tosca. For example, automated assurance for SAP S4/HANA and Salesforce</td>
</tr>
<tr>
<td>Amazon</td>
<td>Partnership focuses on training and testing Alexa conversational AI, cloud-native testing, and infrastructure hosted on AWS cloud</td>
</tr>
<tr>
<td>Microsoft</td>
<td>Testing of next-generation applications built using big data, cloud-native on Azure, IoT, AR/VR/MR, etc.</td>
</tr>
</tbody>
</table>

Cognizant also has partnerships with IBM, Dynatrace, Neotys, Saucelabs, Worksoft, Microfocus, Genrocket, Temenos, Guidewire, SAP, Salesforce, Servicenow, Oracle, Perfecto, Appdynamics, and Applitools.

### QA services investments (representative list)

<table>
<thead>
<tr>
<th>Investment name/ theme</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Experience</td>
<td>Elevating QA proposition to customer experience assurance through its Customer Experience Assurance Maturity Model that includes testing for hyper-personalization, sentiment, and accessibility</td>
</tr>
<tr>
<td>Cloud</td>
<td>Ready to use continuous testing pipelines on AWS, Azure, and GCP for accelerated adoption of CI/CD in DevOps</td>
</tr>
<tr>
<td>IoT and Industry 4.0</td>
<td>Build industry-specific use cases for robotic test automation such as lifesciences and healthcare. Participation in Artificial Intelligence-of-Things (AIoT) community with Bosch to define standards and processes for end-to-end assurance of AIoT ecosystem</td>
</tr>
</tbody>
</table>
### Case studies

#### Case study 1: Direct-to-Consumer Channels growth

**Client**
American sports company

**Business challenge**
Client wanted to enhance global consumer digital engagement by transforming the overall app experience for the customer.

**Solution**
- Assurance across IoT ecosystem for data sync between wearables, consumer apps, and health apps for runs and workouts
- Augmented reality assurance for advanced personalization, video casting experience using Chromecast, GNHH, etc.
- Robotic test automation for simulating physical activities (e.g., walking, running) across wearables and mobile devices
- Automated content capture for localization testing across 20+ locales

**Impact**
- An 83% growth in digital sales
- A 200% increase in adoption of Commerce App
- Approximately 20% increase in weekly active users of Fitness Apps
- More than 4.8 App rating across all Fitness & Commerce apps

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#### Case study 2: Service delivery transformation

**Client**
British satellite telecommunications company

**Business challenge**
Client aimed to replace legacy systems with a cloud integrated platform across business units, product offerings, and 700+ unique end-to-end order journeys.

**Solution**
- Digital assurance with E2E validations, UAT, business validation support, live satellite connection test, performance, security, automation, and operational readiness testing
- BDD and risk-based testing strategy
- Automation first approach for in-sprint and regression testing using industry tools as well as Cognizant IPs—Cognizant Intelligent Quality Designer, and SmartStub

**Impact**
- Around 96% more orders right-first-time
- Approximately 90% faster creation and deployment of new offers
- A 50% faster program delivery as compared to legacy stack
Everest Group PEAK Matrix® is a proprietary framework for assessment of market impact and vision & capability.
Services PEAK Matrix® evaluation dimensions

Measures impact created in the market – captured through three subdimensions

- **Market adoption**
  - Number of clients, revenue base, YOY growth, and deal value/volume

- **Portfolio mix**
  - Diversity of client/revenue base across geographies and type of engagements

- **Value delivered**
  - Value delivered to the client based on customer feedback and transformational impact

Measures ability to deliver services successfully. This is captured through four subdimensions

- **Vision and strategy**
  - Vision for the client and itself; future roadmap and strategy

- **Scope of services offered**
  - Depth and breadth of services portfolio across service subsegments/processes

- **Innovation and investments**
  - Innovation and investment in the enabling areas, e.g., technology IP, industry/domain knowledge, innovative commercial constructs, alliances, M&A, etc.

- **Delivery footprint**
  - Delivery footprint and global sourcing mix
Everest Group PEAK Matrix® for Quality Assurance Service Providers 2021

Everest Group confers the Star Performers title on providers that demonstrate the most improvement over time on the PEAK Matrix®

**Methodology**

Everest Group selects Star Performers based on the relative YOY improvement on the PEAK Matrix.

In order to assess advances on **market impact**, we evaluate each service provider’s performance across a number of parameters including:
- Yearly ACV/YOY revenue growth
- # of new contract signings and extensions
- Value of new contract signings
- Improvement in portfolio mix
- Improvement in value delivered

We identify the service providers whose improvement ranks in the top quartile and award the Star Performer rating to those service providers with:
- The maximum number of top-quartile performance improvements across all of the above parameters AND
- At least one area of top-quartile improvement performance in both market success and capability advancement

In order to assess advances on **vision and capability**, we evaluate each service provider’s performance across a number of parameters including:
- Innovation
- Increase in scope of services offered
- Expansion of delivery footprint
- Technology/domain specific investments

The Star Performers title relates to YOY performance for a given vendor and does not reflect the overall market leadership position, which is identified as Leader, Major Contender, or Aspirant.
FAQs

Does the PEAK Matrix® assessment incorporate any subjective criteria?
Everest Group’s PEAK Matrix assessment adopts an unbiased and fact-based approach (leveraging service provider / technology vendor RFIs and Everest Group’s proprietary databases containing providers’ deals and operational capability information). In addition, these results are validated / fine-tuned based on our market experience, buyer interaction, and provider/vendor briefings.

Is being a “Major Contender” or “Aspirant” on the PEAK Matrix, an unfavorable outcome?
No. The PEAK Matrix highlights and positions only the best-in-class service providers / technology vendors in a particular space. There are a number of providers from the broader universe that are assessed and do not make it to the PEAK Matrix at all. Therefore, being represented on the PEAK Matrix is itself a favorable recognition.

What other aspects of PEAK Matrix assessment are relevant to buyers and providers besides the “PEAK Matrix position”?
A PEAK Matrix position is only one aspect of Everest Group’s overall assessment. In addition to assigning a “Leader”, “Major Contender,” or “Aspirant” title, Everest Group highlights the distinctive capabilities and unique attributes of all the PEAK Matrix providers assessed in its report. The detailed metric-level assessment and associated commentary is helpful for buyers in selecting particular providers/vendors for their specific requirements. It also helps providers/vendors showcase their strengths in specific areas.

What are the incentives for buyers and providers to participate/provide input to PEAK Matrix research?
- Participation incentives for buyers include a summary of key findings from the PEAK Matrix assessment.
- Participation incentives for providers/vendors include adequate representation and recognition of their capabilities/success in the market place, and a copy of their own “profile” that is published by Everest Group as part of the “compendium of PEAK Matrix providers” profiles.

What is the process for a service provider / technology vendor to leverage their PEAK Matrix positioning and/or “Star Performer” status?
- Providers/vendors can use their PEAK Matrix positioning or “Star Performer” rating in multiple ways including:
  - Issue a press release declaring their positioning. See citation policies.
  - Customized PEAK Matrix profile for circulation (with clients, prospects, etc.)
  - Quotes from Everest Group analysts could be disseminated to the media.
  - Leverage PEAK Matrix branding across communications (e-mail signatures, marketing brochures, credential packs, client presentations, etc.)
- The provider must obtain the requisite licensing and distribution rights for the above activities through an agreement with the designated POC at Everest Group.

Does the PEAK Matrix evaluation criteria change over a period of time?
PEAK Matrix assessments are designed to serve present and future needs of the enterprises. Given the dynamic nature of the global services market and rampant disruption, the assessment criteria are realigned as and when needed to reflect the current market reality as well as serve the future expectations of enterprises.
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