

NEAT EVALUATION FOR CIGNITI:

Software Testing

Market Segments: Overall, Pure-Play Focus

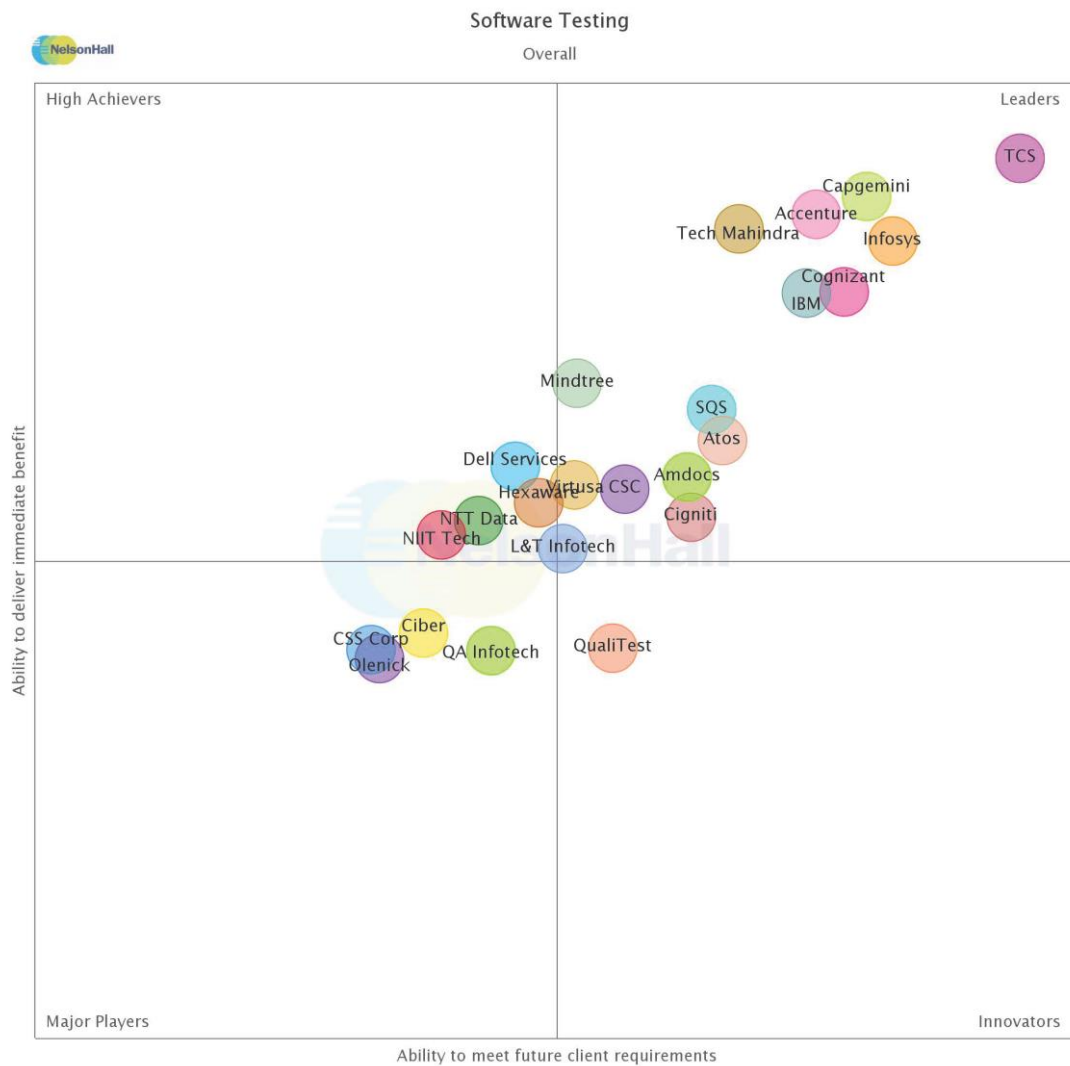
This document presents Cigniti with the 2016 NelsonHall NEAT vendor evaluation for Software Testing in two market segments (Overall, and Pure-Play Focus). It contains the NEAT graphs of vendor performance, a summary vendor analysis of Cigniti in Software Testing, and the latest market analysis summary for Software Testing. An explanation of the NEAT methodology is included at the end of the document.

The vendors evaluated are: Accenture, Amdocs, Atos, Capgemini, Ciber, Cigniti, Cognizant, CSC, CSS Corp, Dell Services, Hexaware, IBM, Infosys, L&T Infotech, Mindtree, NIIT Technologies, NTT Data, Olenick & Associates, QA Infotech, Qualitest Group, SQS, TCS, Tech Mahindra, and Virtusa.

Introduction

NelsonHall has assessed and evaluated Cigniti's proposition against demand for software testing services, and has identified Cigniti as a Leader in the *Overall and Pure-Play Focus* market segments, as shown in the NEAT graphs on pages 2 and 3.

NEAT Evaluation: Software Testing (Overall)

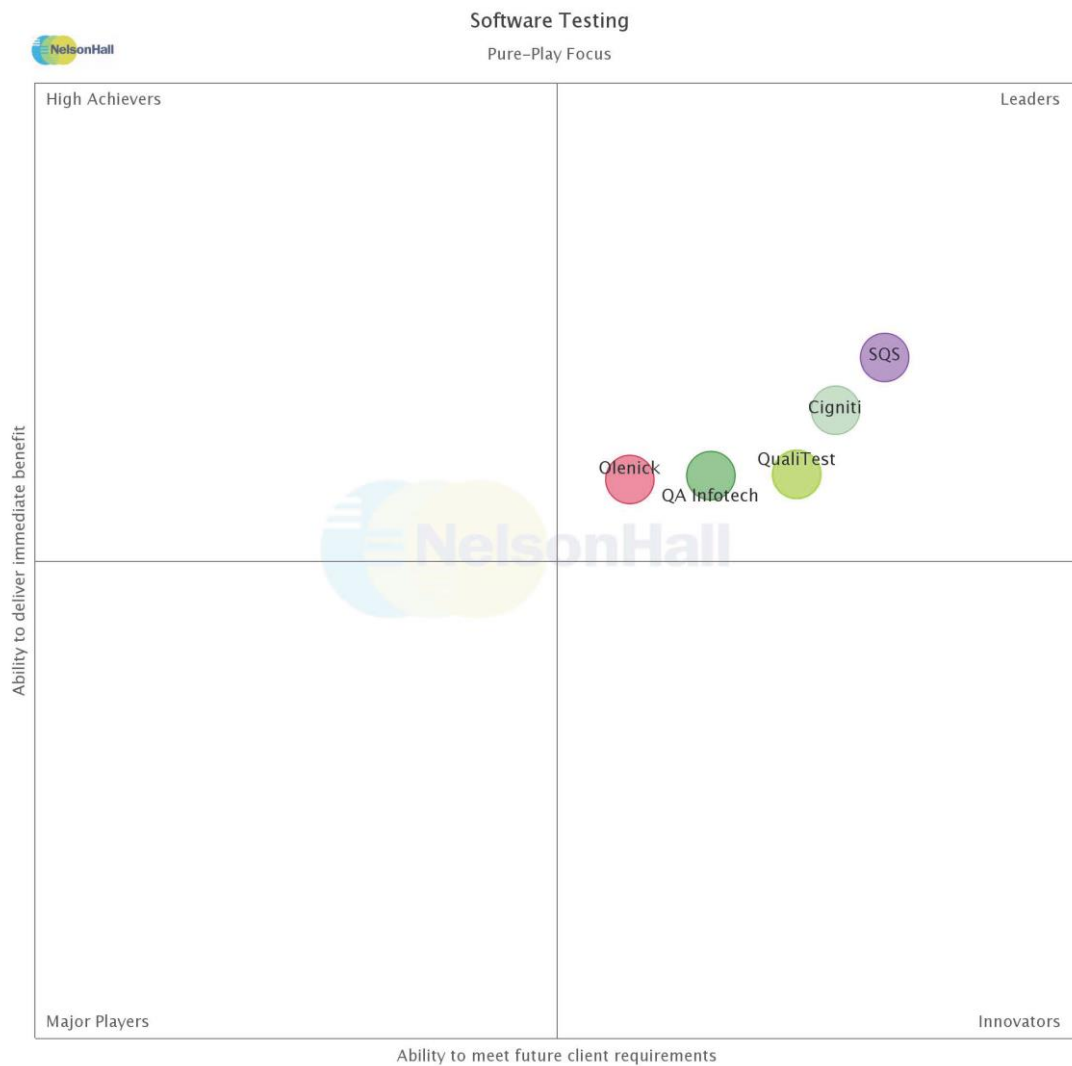


Source: NelsonHall 2016

The *Overall* market segment reflects Cigniti’s overall ability to meet future client requirements as well as delivering immediate benefits to software testing clients.

Buy-side organizations can access the Software Testing NEAT tool (Overall) [here](#).

NEAT Evaluation: Software Testing (Pure-Play Focus)



The *Pure-Play Focus* market segment reflects Cigniti’s ability to meet future client requirements as well as delivering immediate benefits to software testing clients relative to other pure-play software testing providers.

Buy-side organizations can access the Software Testing NEAT tool (Pure-Play Focus) [here](#).

Vendor Analysis Summary for Cigniti

Overview

Cigniti Technologies (Cigniti) is a Hyderabad headquartered software testing vendor which is BSE and NSE listed. In FY 2016 (year ending March 31, 2016), it had revenues of INR 5,949m (~\$89m). Cigniti's CY 2015 revenues were INR 5,505m (~\$85m). Its headcount at the end of CY 2015 was ~1.8k (and 2.3k in May 2016). It has a current market capitalization of ~\$150m.

Cigniti has 300 clients, the largest being a U.S. low cost airline carrier; up to 175 Cigniti personnel work for this client. Other brand names among Cigniti's main clients include Synovus, Freeman, Alfa Insurance in the U.S.; Ryanair, Bapcare, Nimble; and Indigo Airlines in India.

The company was founded under the name of Chakkilam Infotech in 1998, offering generic IT services. In 2006, it decided to become a software testing pure-play, initially targeting primarily U.S. market and technology clients (ISVs and e-learning).

In 2011, Chakkilam Infotech acquired a U.S. testing consultancy, Cigniti Inc. Based in Irving, Texas, Cigniti Inc. had a headcount of 350 and 2010 revenues of \$18m. The acquired firm serviced only U.S. clients, primarily in the enterprise segment (70% of revenues), expanding from its pre-acquisition client base of technology vendors. It focused on QA consulting, tool consulting, testing project management and test execution; NelsonHall estimates that consulting activities represented 10% of its headcount, while test design and execution represented the remaining 90%. Chakkilam was renamed Cigniti Technologies in 2012.

In mid-2013, Cigniti Technologies made another U.S.-centric acquisition, with the purchase of Gallop Solutions Inc. Gallop had FY 2012 revenues of ~\$9.5m and a headcount of ~200, of which 80 were in Texas and 120 in Hyderabad. Key clients included HP, NCR, JC Penney, PayChex, and Bank of America, as well as Delphi. Its client overlap with Cigniti was minimal. Incidentally, Gallop Solutions operated in the same cities as Cigniti Technologies, each having offices in both Irving, TX and Hyderabad, India.

Since 2013, Cigniti has not made any further acquisitions; this is in spite of its intention to do so, particularly in central Europe.

Cigniti has focused on winning large managed testing contracts. It has won contracts of up to \$20m in TCV, including two large contracts, with a U.S. low cost airline carrier and Alfa Insurance, both in the U.S. Also Cigniti regularly wins contracts with TCV of \$1m-\$5m.

In the past two years, Cigniti has put the most emphasis on its specialized services, quality engineering and digital testing in particular:

- **Continuous testing:** a series of testing services which include automation, service virtualization, and testing environment provisioning, especially in the context of agile and DevOps projects (it has 200 testers working on agile projects currently). Approximately 10% to 15% of Cigniti's career testers work on test automation
- **Omni-channel and UX:** mostly mobile app testing including cross-browser testing, a testing lab, and validation across mobile app and websites. UX includes accessibility and usability testing, navigation and content testing, and compliance
- **Analytics and big data:** Cigniti is currently focusing on BI and ETL testing and related performance testing work for projects involving the processing of large volumes of data. It has worked on social sentiment analysis for a retail client in Australia, analyzing 10Gb of data through hashtags on Twitter, to measure the impact of a newly launched

marketing campaign. Looking ahead, it wants to expand its IPs around big data, working with ISV Tricentis around handling large volumes of data

- Cyber security: with a focus on penetration testing (particularly mobile app penetration testing). It is also working for several banking clients around thread modeling, IoT device security, and API security testing. IoT security is one major line of investment and area of focus for Cigniti; it is involved in a security testing project around home connected devices, and around linking big data and security in automotive/connected cars and home connected devices.

Financials

Cigniti is now the largest India-centric software testing pure-play, by revenues, and the third largest pure-play in the world. It is a high growth company, with revenues up 64% in CY 2015 (and +46% in CY 2014).

Cigniti attributes this high growth to its purchase of Cigniti Inc. in 2011 in the key U.S. market, which brought an onshore presence in terms of delivery and account management. This acquisition has been instrumental in driving offshore contracts, away from onshore/onsite work, and also in increasing the size of contracts.

Cigniti is using a 'land and expand' approach, where over time it expands its relationships with current clients. It monitors its client satisfaction levels on a quarterly basis, based on the assumption that satisfied clients will award it more testing contracts. This land and expand approach has been complemented by transforming the former Cigniti Inc. onsite/onshore-centric contracts into India-delivered contracts. It has also doubled its sales force in the U.S.

This expansion has not come at the price of profitability: Cigniti had a NelsonHall estimated EBIT margin of 11.6% in CY 2015 (CY 2014: 9.1%). It estimates that it will be able to reach industry standard profitability once it has over \$100m in revenues (probably in FY 2017).

Despite its acquisitions space and its work to become more international (beyond the U.S.), Cigniti remains at this point a U.S. client-centric organization.

Strengths

- Ability to execute: currently Cigniti is probably one of the fastest growing testing vendors worldwide (along with Applause/utest)
- Visibility among testing pure-plays: Cigniti, with its 1,800 headcount, is the second largest software testing pure-play (by headcount)
- It is profitable and is therefore able to reinvest its profits into tools and IP, delivery, and business development
- Focus on structuring its specialized service offerings, and on IPs, to further automate testing execution, and niche IPs (QuickLean).

Challenges

- Cigniti is a transformation story, especially in terms of IP and accelerators and service mix
- Client presence is mostly in the U.S., and internationalization is limited

- M&A activity has been on pause since Gallop
- Expanding client wins to large managed testing service contracts over \$10m in TCVs, coming from a 'land and expand' commercial approach, based on multiple recurring small awards
- Need for further specialization: the software industry is increasingly about scale, and Cigniti will to further specialize, probably in a few sub-verticals, and back up offerings with more IPs. This will help provide a barrier to its largest competitors, which have larger investment capabilities.

Strategic Direction

Cigniti has a growth strategy, with a target to reach run-rate revenues of ~\$100m in FY 2016, and \$250m by FY 2018.

Acquisitions will play a critical role in this growth; in spite of a pause in transactions since the Gallop Solutions acquisition, Cigniti still intends to make M&As, and has been looking to raise capital from PE. It believes that it will complete one transaction in FY 2017, most likely in central Europe, targeting companies with revenues in the \$9m to \$15m range. In the mid-term, it would like to rebalance its geography mix, from the U.S. having an 85% share to 70%.

In addition, Cigniti is targeting acquisitions bringing IPs (such as those brought by Gallop in 2013) or a higher mix of services towards security testing, ERP testing or BFS expertise. In the long term, it is to expand its sales office toward Nordic countries, the Netherlands, and other Continental European countries which are open to English as a working language. For Germany and France, it is considering acquiring a local firm.

Organically, Cigniti wants to:

- Drive organic growth through several levers: bold hiring, service portfolio expansion, higher prices and account mining
- Bid for larger size with TCV of up to \$100m.

Outlook

Cigniti remains in a growth mode, in terms of both organic and acquisitive growth.

Looking ahead at FY 2017, expect:

- Continued organic growth, at constant currency/perimeter, in the 10%-15% range, largely resulting from account fertilization from the previous Cigniti and Gallop acquisitions
- Continued service portfolio rejuvenation.
- An acquisition in central Europe, probably with revenues of ~\$10m and largely an onshore presence
- Rolling out its service offering around digital and performance globally.

Software Testing: Market Summary

Overview

Key selection criteria for selecting a software testing services vendor are somewhat different by client segment:

- *“Efficiency organizations”* consider a large presence in India as a given and now look for automation capabilities, not just from the professional services skills to configure and deploy testing COTS, but for structured offerings (e.g. test support services such as test data management and test environment provisioning) and platforms (integrating accelerators with COTS and open source software)
- *“Transformation-focused organizations”* want success with their internal IT application rollout and do not benefit from the length of managed testing services to fund automation. They therefore require vendors that come with reusable assets for automation purposes, and also personnel ramp-up capabilities, as well as domain and application knowledge across career testers
- *“Revenue seekers”*, like *“transformation-focused organizations”* look for capabilities such as consulting expertise and understanding of new business models, and the ability to attract millennials across career testers, to help them drive the transformation of their business model and execute it. They are eager to have the onshore expertise combined with the low-cost delivery that will help them match limited budgets such as mobile app testing
- *“Digital natives”* have been engaged in digital for years and need to continue to develop their digital leadership over competitors, while benefitting from low-cost delivery that will help them reach profitability in the mid-term. Such clients need a partner working in the long-run, not a one-off provider.

Buy-Side Dynamics

Of the four buyer types, *“efficiency organizations”* have retained the most interest from vendors, largely because *“efficiency organizations”* purchased large managed testing contracts, focusing on process improvement, rollout of automation and offshoring. The market for new-scope managed testing services is gradually turning into a renewal market, and clients reconsider their managed testing spending, aiming to reduce costs, initially though further automation.

Outside of *“efficiency organizations”*, the three other client segments *“transformation-focused organizations”*, *“revenue seekers”* and *“digital natives”*, purchase mostly testing services through project engagements. *“Transformation-focused organizations”* focus on their internal IT projects. Their spending growth is heavily influenced by macro-economic conditions and varies in the 2% to 3% range currently. *“Revenue seekers”* and *“digital natives”* are investing in strategic digital projects and are therefore spending much more money, and will continue to do so at least for the next five years.

Market Size & Growth

Total global software testing spending was ~\$38.2bn in 2015, and this is forecast to grow to \$42.8bn by 2020 (3% CAGR).

The software testing services market is going through an important change in dynamics. Spending has been growing in recent years in the double-digits, in spite of the sub-prime and the resulting sovereign debt crises; managed testing services led this growth during the period. This trend is now probably over, with the market reaching saturation for managed testing services activities in the U.S. and U.K. Financial services has historically been the largest sector of adoption, representing 38% of spending globally.

While demand for managed testing services is decelerating, demand for digital testing is rising, initially through e-commerce and mobile app projects, often associated with agile methodologies (and increasingly associated by the underlying DevOps technology). Demand in digital testing is expanding from websites and mobile apps to cloud computing (and in particular SaaS application testing), analytics and big data, and is nascent in IoT.

In spite of the strong demand for digital testing, the sharp decline in growth in managed testing services results in overall software testing services dropping to single-digit numbers in 2016 and onwards. Volume is down and prices will also continue decreasing, as client organizations focus increasingly on automation and productivity gains. NelsonHall estimates that from 2016 onwards, spending growth in testing will be ~7%, with managed testing services growing by ~5% and project services by ~8%.

On the one hand, growth in functional testing is slowing down (to ~+3%) as a result of spending transferring to automation, and also because of the current decline in ERP/SAP/Oracle on-premise testing spending. On the other hand, spending in digital testing remains strong (to ~+13%) with continued momentum in e-commerce/mobile apps; and spending on specialized offerings also remains solid (~+9%) across the range, from non-functional to agile, and test support services, and to much lesser extent QA consulting (+~5%).

Outlook

Over the next few years, the main challenges of the software testing service industry are:

- Continuing investing in service portfolio with a specific attempt in separating hype and offerings with long-term potential. Currently, DevOps, agile, digital and UX, as well as platforms are the key priority and will remain. Looking ahead, possibilities are many: from AI and machine learning on the automation side, to IoT, big data, security, CBT and other statistical techniques. Of these, IoT is a certainty as well as (probably) big data. Looking further ahead, augmented reality is also a testing offering with strong potential, as it is similar to the mobile app ecosystem
- Creation of platforms and automation are a major trend in the industry and will remain so, as the industry cannot keep on being so linear and continue adding 25k new career testers each year. Along with platforms, technology partnerships are changing in nature, and have expanded from HP, IBM and Microsoft to partners that provide niche products or have aggressive pricing strategies. This is particularly true in digital testing
- Shared service centers, i.e. servicing clients through shared client centers, will also be a way of driving productivity again. This approach will be less functional testing-centric and will revolve around specialized offerings. We call this model factory based testing, where specialized testing services will provide services. Current examples of this factory

based testing model already include non-functional, mobile app testing, UX and usability testing, as well as localization testing.

NEAT Evaluation for Software Testing

NelsonHall's (vendor) Evaluation & Assessment Tool (NEAT) is a method by which strategic sourcing managers can evaluate outsourcing vendors and is part of NelsonHall's *Speed-to-Source* initiative. The NEAT tool sits at the front-end of the vendor screening process and consists of a two-axis model: assessing vendors against their 'ability to deliver immediate benefit' to buy-side organizations and their 'ability to meet client future requirements'. The latter axis is a pragmatic assessment of the vendor's ability to take clients on an innovation journey over the lifetime of their next contract.

The 'ability to deliver immediate benefit' assessment is based on the criteria shown in Exhibit 1, typically reflecting the current maturity of the vendor's offerings, delivery capability, benefits achievement on behalf of clients, and customer presence.

The 'ability to meet client future requirements' assessment is based on the criteria shown in Exhibit 2, and provides a measure of the extent to which the supplier is well-positioned to support the customer journey over the life of a contract. This includes criteria such as the level of partnership established with clients, the mechanisms in place to drive innovation, the level of investment in the service, and the financial stability of the vendor.

The vendors covered in NelsonHall NEAT projects are typically the leaders in their fields. However, within this context, the categorization of vendors within NelsonHall NEAT projects is as follows:

- **Leaders:** vendors that exhibit both a high ability relative to their peers to deliver immediate benefit and a high capability relative to their peers to meet client future requirements
- **High Achievers:** vendors that exhibit a high ability relative to their peers to deliver immediate benefit but have scope to enhance their ability to meet client future requirements
- **Innovators:** vendors that exhibit a high capability relative to their peers to meet client future requirements but have scope to enhance their ability to deliver immediate benefit
- **Major Players:** other significant vendors for this service type.

The scoring of the vendors is based on a combination of analyst assessment, principally around measurements of the ability to deliver immediate benefit; and feedback from interviewing of vendor clients, principally in support of measurements of levels of partnership and ability to meet future client requirements.

Exhibit 1

‘Ability to deliver immediate benefit’: Assessment criteria

Assessment Category	Assessment Criteria
Offerings	<ul style="list-style-type: none"> Functional testing QA Performance testing Security testing Digital testing: Mobile Digital testing: Big data & analytics Digital testing: Cloud computing Digital testing: IoT Digital testing: UX Digital testing: DevOps Digital testing: Agile
Delivery	<ul style="list-style-type: none"> Indian delivery capability: Overall Indian delivery capability: Proportion of career testers Career tester headcount: N. America Career tester headcount: U.K. Career tester headcount: Continental Europe Career tester headcount nearshore for Continental European clients Transformation of test operations: Process improvement Automation of functional testing: Testing framework Automation of testing using proprietary tools: Test case repositories Automation of testing using proprietary tools: Digital platform Automation of testing using proprietary tools: DevOps platform Automation of testing using proprietary tools: Test case optimizer Automation of testing using proprietary tools: AI Automation of testing using proprietary tools: MBT Automation of testing using proprietary tools: Requirement analyzer Test support services: Test data management Test support services: Test environment provisioning Test support services: Service virtualization Provision of code quality analysis Sharing of factory-based personnel across clients

continued...

Customer Presence	Overall customer presence In N. America In U.K. In Continental Europe In RoW In BFSI sector In Telecoms sector
Benefits Achieved	Level of cost savings Increased application quality/reduced production downtime Increased speed to market of applications Increased speed to market of digital initiatives Increased end-user/business satisfaction

Exhibit 2

‘Ability to meet client future requirements’: Assessment criteria

Assessment Category	Assessment Criteria
Software Testing Investment	<ul style="list-style-type: none"> In support of functional testing In support of QA In support of security testing In support of digital testing: AI In support of digital testing: IoT In support of digital testing: Big data & analytics In support of digital testing: Cloud computing In support of digital testing: UX In proprietary IPs & tools
Software Testing Market Momentum	<ul style="list-style-type: none"> Extent of new client wins Level of M&A activity in software testing business Size & budget of testing CoE
Ability to Deliver Software Testing Innovation	<ul style="list-style-type: none"> Mechanisms in place to deliver client innovation Extent of client perception of innovation delivered Suitability of vendor to meet client future needs Strength of partnership
Financial Security	Financial Rating

For more information on other NelsonHall NEAT evaluations, please contact the NelsonHall relationship manager listed below.



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Sales Enquiries

NelsonHall will be pleased to discuss how we can bring benefit to your organization. You can contact us via the following relationship manager:

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