Everest Group PEAK Matrix® for Intelligent Automation in Healthcare Solutions Providers 2022

Focus on Cognizant
November 2021
Background of the research
Intelligent Automation in Healthcare 2021

Although healthcare payer and provider enterprises have traditionally relied on outsourcing services and offshoring their delivery footprint to improve their business across multitude of parameters; they have reached a saturation stage and have been looking for other ways to extract additional benefits. Many healthcare enterprises have garnered maximum traction in the past couple of years by employing automation solutions such as cloud, RPA, NLP, AI/ML and more, to improve performance delivery in claims management, patient engagement, risk adjustments, etc. The need for automating processes is now more than ever as the global pandemic has brought to light the glaring inadequacies and inefficiencies of the healthcare systems across the globe. The aim of automation is not to de-humanize the healthcare systems, but rather, to support the working of the stakeholders in the value chain to optimize processes, reduce costs and waste, improve patient care and experience, and enhance business resilience. The scope of integrating intelligent automation with the existing healthcare functions exists in almost all segments of the healthcare value chain and provides ample opportunity to the healthcare payers and providers to upgrade themselves and cater to the growing demand for value-based care.

This report includes the profiles of the following 18 leading healthcare service providers featured on the Intelligent Automation in Healthcare PEAK Matrix:

- **Leaders**: Accenture, Cognizant, Exela Technologies, NTT DATA, Wipro, and Optum
- **Major Contenders**: Access Healthcare, EXL, HCL Technologies, HGS, emids, TCS, Sutherland Global Services, Atos, and Virtusa
- **Aspirants**: AGS Health, GeBBS, and Omega Healthcare
Everest Group classified 18 healthcare BPS service providers on the Everest Group PEAK Matrix® into the three categories of Leaders, Major Contenders, and Aspirants. The PEAK Matrix® is a framework to assess the absolute market success and overall capability of service providers.

**Leaders**
There are six service providers in the Leaders category – Accenture, Cognizant, Exela Technologies, NTT DATA, Wipro, and Optum

**Major Contenders**
The Major Contenders category has nine service providers – Access Healthcare, EXL, HCL Technologies, HGS, emids, TCS, Sutherland Global Services, Atos, and Virtusa

**Aspirants**
AGS Health, GeBBS, and Omega Healthcare are Aspirants on the PEAK Matrix® for intelligent automation in healthcare solutions
Everest Group PEAK Matrix®
Intelligent Automation in Healthcare – Solutions PEAK Matrix® Assessment 2022 | Cognizant positioned as Leader

Everest Group Intelligent Automation in Healthcare – Solutions PEAK Matrix® Assessment 2022

<table>
<thead>
<tr>
<th>Leaders</th>
<th>Major Contenders</th>
<th>Aspirants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accenture</td>
<td>NTT DATA</td>
<td>Amwell</td>
</tr>
<tr>
<td>Exela Technologies</td>
<td>Optum</td>
<td>Wipro</td>
</tr>
<tr>
<td>TCS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Access Healthcare | HCL Technologies | HGS |
| GeBBS | Virtusa | Sutherland Global Services |
| emids | EXL Services | Atos |
| Omega Healthcare | AGS Health | Omega Healthacare |

1 Assessments for Sutherland, Atos and GeBBS excludes service provider inputs on this particular study and is based on Everest Group’s estimates that leverage Everest Group’s proprietary Transaction Intelligence (TI) database, ongoing coverage of the service providers, their public disclosures, and interaction with buyers.

Cognizant | IA in healthcare profile (page 1 of 6)

Overview

Company overview
Cognizant provides outcome-focused intelligent automation by delivering right fit solutions with vertical-specific offerings, best fit technology through partnerships, and accelerators to enable its clients to achieve scale. Its integrated client-focused advisory, and domain-centric approach aims to help clients achieve the business goals, enable adoption, and deliver with excellence. The company continues to invest in immersive innovative labs and integrated fabrics to connect and create seamless patient and provider experiences, as well as lower costs with optimal results.

Key leaders
- Ganesh Ayyar, EVP and President, Cognizant Digital Business Operations
- Girish Pai, VP, Global Head of Intelligent Automation

Headquarters: Teaneck, NJ, US
Website: www.cognizant.com

Recent developments (not exhaustive)
- **2021:** received the UiPath Certified Professional Services Partner award, Automation Anywhere Partner of the Year – Americas award, and the Workato Strategic Partner award
- **2020:** received the UiPath Partner of the Year - Americas award, Blue Prism – Global Delivery & Excellence Partner award, and Appian – Value award
- **December 2020:** acquired Inawisdom, a consultancy specializing in AI, ML, and data analytics
- **November 2020:** received business transformation and operational excellence industry awards and best achievement in technology-enabled process automation
- **September 2020:** acquired 10th Magnitude, an IT company, to enhance capabilities and solutions on the Microsoft stack including automation & AI. Became a MS Azure specialist with engagements in healthcare vertical

Adoption and capability overview

<table>
<thead>
<tr>
<th>Total clients leveraging IA in healthcare</th>
<th>Total size of healthcare-specific IA or technology team (in FTEs)</th>
<th>Total/cumulative RPA robots deployed by clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>173</td>
<td>4,550</td>
<td>3,734</td>
</tr>
</tbody>
</table>

Key locations with IPA FTEs

<table>
<thead>
<tr>
<th>Region</th>
<th>FTEs</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America (US)</td>
<td>895 FTEs</td>
</tr>
<tr>
<td>EU, Africa, and LATAM</td>
<td>265 FTEs</td>
</tr>
<tr>
<td>Asia Pacific (India and other counties)</td>
<td>3,390 FTEs</td>
</tr>
</tbody>
</table>

Key third-party technology partners: UiPath, Automation Anywhere, Blue Prism, WorkFusion, Pega Systems, Xceptor, OpenText, Xtracta, CognitiveScale, Vidado, Enate, Celonis, FortressIQ, MyInvenio, Hyperscience, Abbyy, Indico, NICE, Buddi.ai, Singularity Systems, Appian, Google Cloud Apigee, Microsoft, Oracle, IBM, TIBCO, Dell Boomi, and AWS

Commercial model

<table>
<thead>
<tr>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed price model</td>
</tr>
<tr>
<td>Input/FTE/T&amp;M-based</td>
</tr>
<tr>
<td>License / IP-based</td>
</tr>
<tr>
<td>Outcome-based</td>
</tr>
<tr>
<td>Transaction-based</td>
</tr>
</tbody>
</table>

Healthcare IA offering structures

<table>
<thead>
<tr>
<th>Offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>IA as part of broader deal</td>
</tr>
<tr>
<td>Product licenses + associated IA services</td>
</tr>
<tr>
<td>Stand-alone IA services</td>
</tr>
<tr>
<td>Stand-alone product licenses</td>
</tr>
</tbody>
</table>
Cognizant | IA in healthcare profile (page 2 of 6)
Capabilities and client mix

Split of healthcare IA FTEs
Total FTEs (100%) = 308

By function
- Services: 70%
- Product development: 9%
- R&D, consulting, and PoCs: 21%

By automation type
- Cognitive automation: 60%
- RPA: 7%
- Other: 33%

By healthcare market type
- Provider: 88%
- Other: 12%

Split of IA clients mix
Payer market IA client mix by buyer size¹
Number of clients (100%) = 52
- Large: 25%
- Medium: 46%
- Small: 29%

Provider market IA client mix by buyer size¹
Number of clients (100%) = 236
- Large: 16%
- Medium: 28%
- Small: 56%

Split of total IA bots deployed across value chain processes
Payer market bots mix by processes
Number of bots deployed
- Claims management: 73%
- Risk and compliance: 14%
- Network management: 5%
- Care management: 5%
- Others: 1%

Provider market bots mix by processes
Number of bots deployed
- Medical billing: 26%
- Claims management: 18%
- A/R management: 14%
- Patient access: 14%
- Care management: 3%
- Others: 33%
## Cognizant | IA in healthcare profile (page 3 of 6)

### Solutions portfolio

<table>
<thead>
<tr>
<th>RPA</th>
<th>Intelligent document processing</th>
<th>Intelligent virtual agents</th>
<th>AI advisor tools</th>
<th>Classic process mining</th>
<th>Desktop Process Mining (DPM)</th>
<th>Workflow/orchestration</th>
<th>Others</th>
</tr>
</thead>
</table>

### Proprietary solutions offered

- **HPA RPA-as-a-Service (RPAaaS)** uses proprietary technology and extensive reusable code library to deliver scalable RPA programs that accelerate RoI and reduce TCO
- **Automation workbench**
  - Customizable chat web UI and connectors, ZMAT Facets Bot, IHX (Cognizant’s Intelligent Health Experience), ReSolv, CALLSRAV, SMAIL, AI training accelerators
  - Onvida – a cloud based, omnichannel contact engagement solution that delivers highly personalized experiences by connecting all stakeholders through phone, online, chat, email, SMS, and more.
  - Automation workbench
  - Mining exchange – helps clients prioritize their process transformation by leveraging process mining & task mining tools to identify opportunities, scenario simulation, and process monitoring
  - Process Lexicon – door to a digital frontier enabling access to golden process designs, digital assets, and common minimum controls and their impact to business that ensure zero surprise delivery
  - ZDLC – ZDLC IT knowledge automation reverse-engineers process flows, data lineage, and business rules from the running systems; it automatically captures the business’s operational user interface activity and aligns these together
  - IBPMS
  - Digital Operations Fabric (DOF)
  - Cognizant’s Facets® Integrated Data Exchange
  - Digital patient care
  - Claims processing
  - Digital contact center
  - Automation, Cognizant Cloud Integration Brokerage (CCIB)
  - LiveInsights 2.0
  - Cognizant’s Learning Evolutionary Algorithm Framework (LEAF)
### Cognizant | IA in healthcare profile (page 4 of 6)

#### Solutions portfolio

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<th>Desktop Process Mining (DPM)</th>
<th>Workflow/orchestration</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solutions developed jointly with the technology vendor</td>
<td>- UiPath &amp; Automation Anywhere</td>
<td>N/A</td>
<td>N/A</td>
<td>- Joint deployment of process mining solutions in the Revenue Cycle Management (RCM) space</td>
<td>N/A</td>
<td>N/A</td>
<td>Interaction Analytics is utilized to create member intent-based call categorization, such as grievances, benefits, eligibility, enrollment, and appeals.</td>
</tr>
<tr>
<td></td>
<td>- UiPath</td>
<td>Indico</td>
<td>N/A</td>
<td>- Working with Celonis, BusinessOptix, and Signavio, to create a mining and discovery exchange, which ties into the Automate the Automation thread that aids best in class benchmarking through a golden copy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vidado</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customizations/wrappers created for third-party solutions</td>
<td>N/A</td>
<td>N/A</td>
<td>Customizations/wrapper-s have been built on third-party solutions for tracking the following, real-time speech analytics, desktop analytics, speech analytics, knowledge management integration, and automated quality management.</td>
<td>N/A</td>
<td>Workato, Celonis, Process Gold</td>
<td>N/A</td>
<td>Customizations/wrappers have been built on third-party solutions for tracking the following: real-time speech analytics, desktop analytics, speech analytics, knowledge management integration, and automated quality management.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>N/A</td>
<td></td>
<td></td>
<td>BusinessOptix</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Number of active clients | 100-500 | 50-100 | <10 | <10 | <10 | <10 | 10-50 | <10 |
## Key IA solutions

<table>
<thead>
<tr>
<th>Top healthcare-specific IA solutions</th>
<th>Value chain process area served</th>
<th>Year launched</th>
<th>Development type</th>
<th>Description</th>
<th>No. of clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>FACETS Automation Solution Toolkit (FAST)</td>
<td>Claims</td>
<td>2020</td>
<td>Proprietary</td>
<td>An end-to-end automation framework that caters to claims processing, enrollment, provider, contact center, and Utilization Management (UM) functions. This rapid automation framework constructs the key tenets required to improve the efficiency of claims operations and lays down adoption paths to other functions / operational areas.</td>
<td>10-50</td>
</tr>
<tr>
<td>Machine automated data review for drug fulfillment</td>
<td>Pharmacy - prescription fulfillment process</td>
<td>2020</td>
<td>Proprietary</td>
<td>This AI and ML model solution handles a large volume of influx by applying the intelligent classification engine for drug fill / re-fill requests. The intelligent classification engine reduces the volume of prescriptions that are sent to pharmacists for manual review by classifying prescriptions as ‘automatic’ or ‘manual review’ based on prescriber notes, drug name, NDC, and patient allergy fields from e Prescriptions.</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Claims smart audit and smart assignment for interest payment reduction</td>
<td>Claims</td>
<td>2020</td>
<td>Proprietary</td>
<td>An AI/ML solution predicts cases that have a high probability of being adjudicated inaccurately and prioritizes them for a manual audit. The ML models are trained in health plan-specific data to identify claims at the highest risk of overpayment, underpayment, incorrect adjudication, adjustment, and overpaid interest payments. This solution is integrated into the clients Claims Adjudication &amp; QA/audit process and helps improve the effectiveness of the audit process with better risk assessment, and reduction in overpayment and interest payment.</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Hospital equipment’ &amp; inventory purchase order and credit memo processing</td>
<td>A/P management</td>
<td>2020</td>
<td>Joint development with UiPath</td>
<td>An integrated and end-to-end Intelligent automation solution involving RPA, ML, OCR, custom code, and human-in-the-loop was developed to resolve issues raised by members and providers while handling purchase orders and processing credit memos. Cognizant built an UiPath AiFabric solution packaged with a base invoice AI model, document understanding framework, and an action center for human-in-the-loop functionality. This enables healthcare providers to process credit memos, which helps avoid/reduce errors and reduce their backlogs.</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Digital Operations Fabric (DOF)</td>
<td>Work inventory, workforce and transactional quality audit management tool</td>
<td>2018</td>
<td>Proprietary</td>
<td>A work inventory, workforce and transactional quality audit management tool. It includes intuitive dashboards and generates several reports. DOF is an integrated operations management suite that has four modules: work management, quality management, performance management, and knowledge management.</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>
Cognizant | IA in healthcare profile (page 6 of 6)

Everest Group assessment – Leader

**Strengths**

- Cognizant is one of the few healthcare service providers that have significant presence on both payer and provider side from an operation as well as technology point of view, which is evident from its sizable client portfolio and number of AFTEs deployed in healthcare automation.
- Over the years, it has established a strong partner ecosystem to aid the development and delivery of its healthcare automation offerings comprising prominent third-party vendors such as UiPath for IDP and claims automation and Automation Anywhere for ICR-OCR capabilities and cloud strategy in the healthcare space.
- Cognizant’s investment in new expertise and capabilities has started to bear fruit. The acquisition of TriZetto a few years back has helped Cognizant augment its healthcare automation capabilities with the Healthcare Productivity Automation (HPA) tool now proving to be one of its most versatile platforms. Furthermore, with the acquisition of Bolder Healthcare Solutions, Cognizant will be able to better address the large provider segment of the US healthcare market, mainly pertaining to RCM solutions.
- HPA, an affiliate company of Cognizant, has proved to be an automation CoE with deep expertise across healthcare automation. It also utilizes in-house technology and robot library to deliver a scalable RPA-as-a-Service model to minimize risks and control costs.
- Cognizant’s recent collaboration with Royal Philips, a global leader in health-technology, brings together Philips HealthSuite, a cloud-based platform, and Cognizant’s digital engineering expertise to manage the growing amount of health data, integrate medical devices with HealthSuite, and keep patients and providers connected.

**Limitations**

- While it has efficiently developed solutions for claims management both in-house as well as jointly with third-party vendors, Cognizant has significant opportunity to increase its capability across other value chain segments, such as care management and patient engagement, that can be effectively utilized to sell its automation offerings and cater to a broader client base.
- Although Cognizant offers outcome-based automation models to provide flexibility to its clients as its GTM strategy, compared to other Leaders, its current focus on progressive commercial models is on the lower side and can be integrated more to improve efficiency, enhance innovation, and deliver excellent service outcomes.
- As the majority of the automation deployments are being used by small and medium-sized clients, there is significant scope of improvement of the scalability of RPA deployments.
Appendix
Everest Group PEAK Matrix® is a proprietary framework for assessment of market impact and vision & capability
Solutions PEAK Matrix® evaluation dimensions

Measures impact created in the market – captured through three subdimensions

- **Market adoption**
  Size and growth of deployments across the solution portfolio

- **Portfolio mix**
  Solution footprint across geographies, industries, and buyer size segments

- **Value delivered**
  Value delivered to the client based on customer feedback and other measures

Measures ability to deliver solutions successfully. This is captured through five subdimensions

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

- **Technology capability**
  Technical sophistication and breadth/depth across the technology suite

- **Services capability**
  Effectiveness and breadth/depth of services portfolios across the services suite

- **Innovation and investments**
  Innovation and investment in the solution suite

- **Engagement and commercial model**
  Progressiveness, effectiveness, and flexibility of engagement and commercial models
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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