# Cognitive and Self-Healing IT Infrastructure Mangement Services

**Market Analysis**
**Abstract**

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## Who Is This Report For?

NelsonHall's "Cognitive and Self-Healing IT Infrastructure Management Services" report is a comprehensive market assessment report designed for:

- Sourcing managers investigating sourcing developments within the use of vendors for cognitive and self-healing IT infrastructure management services

- Operational decision makers exploring the benefits and inhibitors of undergoing cognitive and self-healing IT infrastructure management services initiatives

- Vendor marketing, sales and business managers developing strategies to target cognitive and self-healing IT infrastructure management services opportunities

- Financial analysts and investors specializing in the IT services sector, including cognitive and self-healing IT infrastructure management services.

## Scope of the Report

This report analyzes the market for cognitive and self-healing IT infrastructure management services. It addresses the following questions:

- What is the current and future market for cognitive and self-healing IT infrastructure management services?

- What are the customer requirements for cognitive and self-healing IT infrastructure management services?

- What are the benefits/results which vendors have been able to achieve for their clients?

- What cognitive and self-healing IT infrastructure management services are organizations buying from IT services vendors?

- What is the size and growth of the cognitive and self-healing IT infrastructure management services market?

- Who are the leading vendors within the cognitive and self-healing IT infrastructure management services market?

- What are the vendor selection criteria, challenges, and critical success factors for vendors targeting cognitive and self-healing IT infrastructure management services?

## Key Findings & Highlights

NelsonHall's market analysis of cognitive and self-healing IT infrastructure management services consists of 68 pages.

Currently ~85% of clients are now actively engaged in the implementation of cognitive and self-healing IT infrastructure management services, with most at project or proof of concept stage. CIOs need to bring innovative digital offerings to the market faster and deliver a differentiated user experience.

Key user requirements include:

- Improving infrastructure and application performance and availability

- Creating an 'always on' IT environment

- Reducing cost from IT operations

- Making IT future ready to support digital (enabling a hybrid environment)

- Ability to manage the increasing complexity of the IT environment (where clients are working with multiple vendors, based on different levels of adoption, and multiple destinations of cloud, such as private cloud for regulatory reasons, or public cloud)

- Orchestration of services and seamless management of IT to enable workload agility

- Delivering business services and improving the end-user experience

- Integration of cognitive and self-heal tools with ITSM

- Expanding use cases in support of IT infrastructure remediation and self-healing of assets

- Ensuring greater adherence to compliance.

All vendors are developing and deploying AI-ops platforms, typically integrating AI, analytics, ML and automation in a modular approach. AI-ops platforms are designed to be highly configurable, with modularity via APIs and micro-services, enabling integration with third-party and open source tools (i.e., Moogsoft, Flexera, ayehu, arago, ServiceNow, and Puppet) and including IP. Key features include:

- Integrating monitoring tools, integration systems, and log management tools into an algorithmic layer, to understand the issues from monitoring tools and filter out the noise

- Understanding the type of automation that needs to trigger either through a deterministic method through rules-based automation (i.e., using SOP or workflow to trigger the automation), or, non-deterministic (i.e., self-healing, predictive, and ML algorithms). An example here includes using NLP and NLU to understand what a ticket is about before issuing to the correct resolver group

- Use of resolver bots to resolve potential incidents, which are typically L0, L1.5 and L2 functions. Other examples include self-heal bots for auto detecting and healing IT issues, prediction bots for predicting IT failures or issues in key metrics and automation assess bots, for analyzing ticket data to identify automation opportunities

- Using AI to understand how to resolve incidents when interfacing with external resources (i.e., IT-end users logging in via service desk to create an incident or discuss a problem through virtual agent).

~85% of vendors are deploying advanced data analytics, NLP, and ML tools to manage and analyze data, including Hadoop and Kafka, and DataRobot to evaluate different ML algorithms. Their approach is to better understand the big data generated from running the IT environment and acting on this data to stop issues in the first instance and working out what to automate next to drive the best outcome.

~90% of vendors are developing or enhancing self-healing ecosystems deriving insights from data and using the insights to drive autonomous operations across entire IT operations stack. A key focus is on the training of ML algorithms based on self-heal success rates. Vendors typically claim after an 18-24-month period they can typically resolve ~65% of incidents through self-heal.

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## Report Length

68 pages, consisting of 8 chapters

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