

SYNTEL IS DRIVING A HOLISTIC APPROACH TO INTELLIGENT AUTOMATION

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Executive Summary

The move toward a highly industrialized and automated delivery of services and processes is at the heart of the strategy for most IT and business operation leaders today. Yet, the reality is that heterogeneous systems, legacy applications and siloed operations remain major obstacles as organizations journey to the As-a-Service Economy. In a business environment where disruption is the norm, the ability to automate processes and to instantaneously share information and data is critical for most organizations. Within that context, robotic process automation (RPA), Autonomics, Test and DevOps Automation are emerging as alternatives to labor arbitrage to aid in overcoming these obstacles. The ultimate vision for this innovation in process automation is less a Nirvana of fully automated systems and processes and more a notion of equipping business and IT analysts with deeper business insights.

Blending RPA and Autonomics tools is at the cusp of innovation of process automation with to the goal of increasing scalability

To gain operational efficiencies, organizations need to leverage a continuum of process automation approaches

Syntel's SyntBots® automation platform addresses these challenges by offering a holistic approach to Intelligent Automation. It ranges from low-level scripting over RPA, through to Autonomics to DevOps. The latter provides a critical differentiation to many of its peers and is underpinned by a jumpstart library to accelerate deployments for specific vertical use cases. When Syntel discusses SyntBots with clients, the starting point is an ROI analysis to ascertain whether the use cases are scalable enough to justify the effort.

Syntel has a set of marquee clients for whom it has deployed SyntBots successfully. The efficiency gains vary by clients' maturity, so the reduction in the manual testing effort, for example, ranged between 20% and 80%. Crucially, for most clients the improvements in quality and throughput were rated higher than just cost savings, because time to value has become the critical benchmark. To continue improving quality, Syntel is enhancing the value delivered by integrating computer vision, natural language processing (NLP) and machine learning.

Architects of the As-a-Service Economy™

Supporting Clients on their Journey into the As-a-Service Economy

In an age of digital disruption, the challenges for organizations are manifold. Almost every discussion HfS has these days includes “digital transformation” at some point, often referencing the customer experience and impact of digital disruptors such as Uber and AirBnB. Looking only at these well-worn examples tends to heighten the fear of whole industries being disrupted. Yet, for most enterprises that were not “born in the cloud,” the journey toward “digital” means transforming a traditional delivery capability to support this digital transformation.

So what does this journey mean for the majority of traditional organizations? In the case of Intelligent Automation, it means organizations will be focused on automating around systems of record to prolong the life and extract greater value for enterprises out of these legacy platforms for the next several years. The common denominator on this spectrum of organizations is that the time it takes to deliver new solutions or to transform has fundamentally changed. This change has been captured by the notion of “time to value”—as legacy organizations can no longer afford to embark on multi-year transformation projects. Speed is the main currency in this new environment. Crucially, however, it needs to be triangulated with both cost and quality.

This is the backdrop against which HfS describes the journey into the As-a-Service Economy. Its main solution ideals include:

- » *Writing off legacy*: Using platform-based services that render past technology investments redundant
- » *Intelligent automation*: Focusing automation to empower analytics and talent
- » *Accessible and actionable data*: Applying real-time analytics models and insights
- » *Plug and play business services*: Enabling business services in a modular way regardless of SaaS or BPaaS

Yet, the journey into As-a-Service is not just about technology innovations. It is in equal measure about change management ideals that are necessary to transform organizations. Beyond writing off legacy, we see the emergence of new concepts for collaborative problems solving typically referenced as “design thinking.” This should help delivery organizations evolve into brokers of capability rather than just being (dis-)regarded as back-office functions. Consequently, we expect the maturation of new sets of partner eco-systems that are based on collaborative engagements, rather than just supplier relationships.

Intelligent Automation Needs to be Assessed as a Continuum

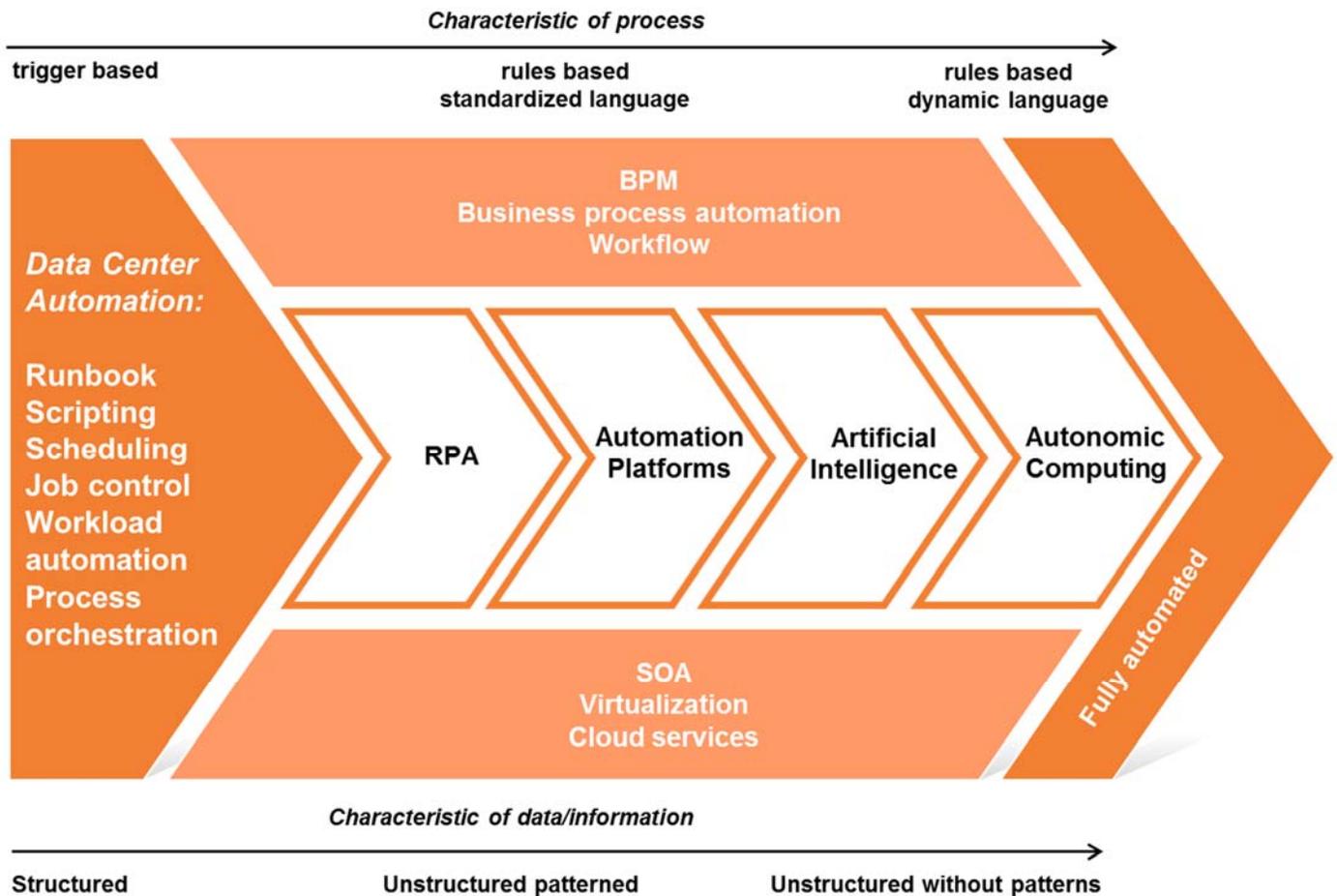
We believe Intelligent Automation is one of the most disruptive forces IT and business process operations has seen, as it is about de-coupling routine service delivery from labor. Thus, it will affect every organization, whether on the

supply or buy side. Historically, it was cheaper and more efficient to throw labor at issues that arose from badly structured business processes and applications. By looking at the sheer magnitude of people working in delivery centers in low cost locations, the scale of this disruption becomes tangible. However, we must be careful not oversimplify the arguments. The discussion should not just be about cost and taking out FTEs as we have seen the early phase of the market development. Rather, the focal point should be how humans can be augmented by these innovations. Put in more simple terms, the advances in Intelligent Automation have to be part of the journey toward the As-a-Service Economy.

To approach Intelligent Automation from a holistic and more transformational perspective, as we highlight in Exhibit 1, it is crucial to call out the interdependency with other, often more low-level automation concepts including runbook, scripting and scheduling. As Exhibit 1 suggests, different automation concepts are both overlapping and interdependent. Providers are deploying these various automation options depending on use cases and process maturity. The critical reference points depicted are the characteristics of the process as well as of data/information.

The evolution of process automation will be progressing towards less well structured processes and including unstructured data. Fundamentally, organizations should assess these options within the HfS Continuum of Intelligent Automation or see them as part of a sourcing toolbox. In many cases, the journey toward fully automated processes will be undertaken by bundling or integrating different set of tools and technologies.

Exhibit 1: The HfS Continuum of Intelligent Automation



Source: HfS Research, 2016

While the hype and consequently the focus in the industry has been around the evolution of RPA and Autonomics, the advances in SOA, and the viral adoption of cloud services, but the innovation in traditional BPM and workflow are equally important for the overall process efficiency. The common characteristic between RPA and innovative BPM tools is that they are non-invasive, thus guaranteeing the integrity of IT architectures and process designs.

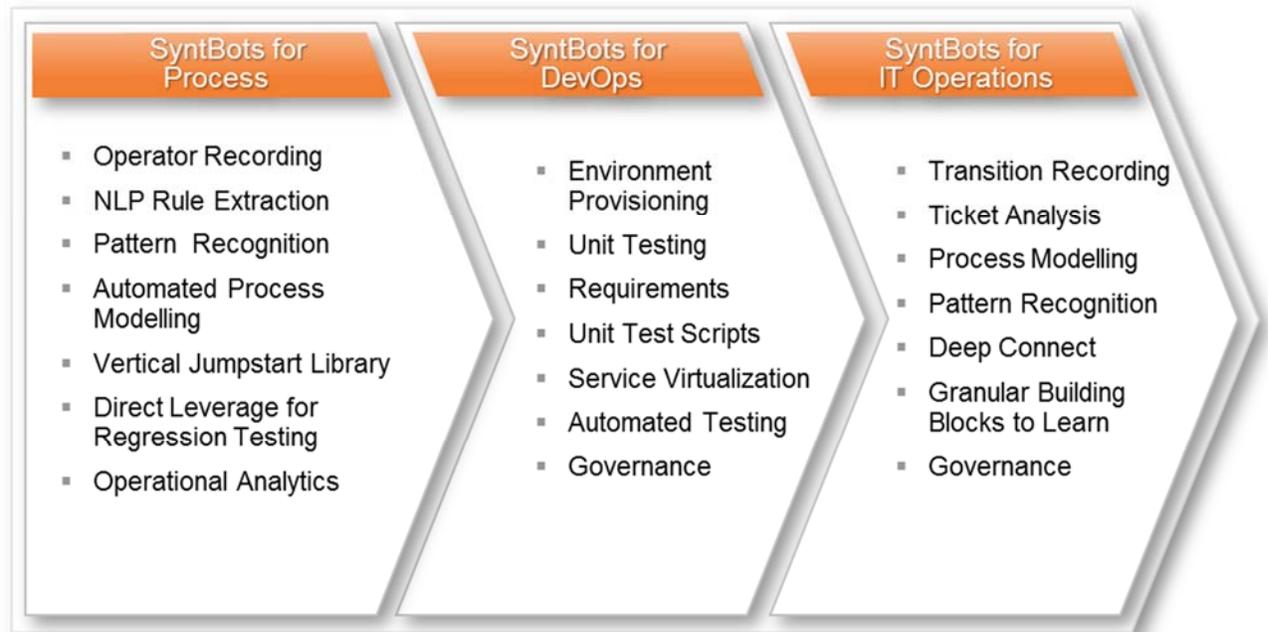
In the past, many BPM tools required either a “swivel chair” approach or broad SOA integration that is invasive in nature, costly and time consuming from a technology perspective. However, the direction of travel is not necessarily towards a process Nirvana or a fully automated process stack, but a vision where process automation and case management tools augment the capabilities of a business analyst and decision-makers.

Syntel's SyntBots® Platform Provides Access to an Automation Ecosystem

Syntel's SyntBots automation platform is well aligned with HfS's notion of Intelligent Automation (see Exhibit 1) and thus provides an example for a holistic approach to process automation, from simple scripting up to automated DevOps and autonomics. The fact that SyntBots leverages a library of industry-specific business cases, test data, business rules and other components means it was designed to be inherently scalable, with these reusable libraries coming to bear at different points within the client enterprise.

Exhibit 2 provides an overview of the key characteristics of the three building blocks of Syntel's SyntBots Platform:

Exhibit 2: Syntel's SyntBots Platform



Source: HfS Research, 2016

Syntel is one of the very few providers that has built out a holistic automation platform spanning IT operations, DevOps and business processes across the enterprise. As such, it has chosen an approach that can be strongly leveraged when the boundaries between those stovepipes blur, leading to an increasing conversion of business process and more IT centric scenarios.

Significantly, SyntBots automation can integrate directly with back-end applications and databases, ensuring that analysts, agents and the underlying applications get fully integrated. In Syntel's view, SyntBots is not a tool, but a platform built largely on Open Source and Open Standards that provides access to an automation ecosystem.

The notion of a platform means that either building blocks or elements of SyntBots can be deployed in different scenarios. For instance, the typical RPA capabilities of Operator Recording and NLP Rule Extraction can be leveraged in application management or testing. Similarly, the Vertical Jumpstart Library can be deployed across all three main scenarios. The commonality between the three building blocks consists of the following process steps:

- » **Seek:** Find and extract data from disparate systems and operators
- » **Learn:** Identify patterns and apply to common use cases
- » **Execute:** Schedule and execute process steps; schedule and automate releases
- » **Optimize:** Self-learning systems that detect patterns, allowing self-remediation (both supervised and unsupervised)

We mentioned earlier that Syntel starts client discussions about SyntBots with an ROI analysis, which is a critical factor and a characteristic that sets them apart from some of their competitors. The analysis will determine buyer requirements, the possible scope of automation, as well as the client's process maturity level. The goal of SyntBots is to defy conventional tradeoffs between cost, quality and speed, so if there are any limiting factors on the client's end, they must be uncovered early in the process.

Ultimately, Syntel views the primary benefits of SyntBots not simply in terms of cost savings or efficiency gains, but in a holistic sense where automation becomes a pathway to a self-funding modernization initiative. Syntel's goal is to enable clients to reinvest their financial and manpower resource gains into more critical digital modernization projects.

The more the notion of Intelligent Automation matures and organizations accelerate their journey toward to the As-a-Service Economy, the more a holistic approach will become important. As we move toward notions of plug and play digital services, organizations must adapt their target operating models to cut across traditional organizational boundaries. Having the ability to drive automation across those boundaries will become a critical differentiator.

Lessons from Syntel's Automation Clients

Reflecting the nascent state of the market around Intelligent Automation, there is a scarcity of relevant client references. In order for the market to evolve, insights into the lessons learned in the early deployments are critical. Insights from some of Syntel's marquee clients provide valuable reference points and learnings around automation.

European Insurance Company

For a large European insurance company, the SyntBots for DevOps project evolved out of an existing relationship to provide offshore development and testing services. The project was focused around field sales applications and

hence required stringent deployments with a release cycle of 6 weeks. Thus, it is a reference point for testing the requirements of organizations moving toward the As-a-Service Economy. At the heart of this partnership is the idea of supporting—or more precisely, *not disrupting*—initiatives geared toward offering time to value for front office activities. The business challenges included:

- » Manual deployment process without use of version control tool
- » No standardized process
- » Manual roll back to be carried out in each environment
- » Code control across multiple environments
- » Deployment across multiple technologies

The key success factor for the project was in identifying the most appropriate use cases for introducing automation. As executives at the insurance company succinctly put it: *“You don’t automate everything. Automation is not the silver bullet.”*

As a result, the focus was on the automated deployment of infrastructure and middleware across legacy and newer generation technologies. This was underpinned by automated email notifications that provided detailed logs of successful or failed deployments. The approach was integrated with a centralized version control tool for automated code check-in and versioning. The results of the project were dramatic:

- » An increase in deployment velocity by around 28%
- » Task Productivity improvement by around 500%
- » Effort reduction of around 24% for more value added activities
- » Creation of a unified Dashboard view across environments with red/amber/green (RAG) status

There were many valuable lessons learned on this journey. For instance, operational analytics for root cause analysis were used to detect bugs that could be fixed with regression testing. For the client, cost was never the overriding factor for measuring the success of the project. Rather, quality and the level of throughput were the primary concerns. Furthermore, stakeholder management was called out, because a more holistic automation approach meant it was not always clear which stakeholder was paying for the work.

The success of the project has led to a perception of DevOps automation as a driver for the client’s broader automation strategy. Consequently, Syntel is discussing automation opportunities in front office activities that will expand over time into the middle office as well.

In the client’s view, the SyntBots platform comprises broad capabilities to automate code deployment. Put in other words, DevOps automation and the broader notion of Intelligent Automation are intrinsically linked.

Global Supply-Chain Company

At a large US-based supply chain company, the main business challenge was to optimize and automate test case design across the complexities introduced by omni-channel deployments of its applications. As with the insurance case above, the primary concern was not cost, but the quality and the timeliness of the applications delivered to the business. The main achievements of the engagement included:

- » Using Model-Based Design led to reduced walkthrough efforts from more than 10 hours to 2 hours by introducing Advanced Requirement Modernization
- » For the same work stream, the approach reduced rework by 40% compared to past releases
- » The introduction of a tool for Automated Test Design is slated to reduce the manual effort between 20% and 30%

This program expanded the role of automation from test execution and deployment all the way to requirements management. The fully automated test solution and DevOps was complemented by a self-service catalog for environment enablement to support agile testing. This entire chain of development acceleration enabled the client to shrink time to market while improving quality.

Global Insurance Company

At a global insurance client, Syntel took over a contract from the incumbent BPO provider. The business case was challenging for Syntel, because the client had previous unsuccessful experiences with automation and had extracted all possible value from low cost location outsourcing. Syntel's winning proposition was to commit contractually to a 40% cost reduction from the first month onwards. To achieve this ambitious goal, Syntel introduced SyntBots for Business Process for a manual policy reconciliation process that had a high risk of errors. The key requirement was to automate data extraction from several databases using a complex set of dynamic queries. The project was even more difficult since the process had a high execution cycle time.

The RPA capabilities of SyntBots for Business Process automated the data extraction process by executing a set of queries based on user input and business patterns. This data extraction was seamlessly coupled with robotics that connected to the client's complex homegrown legacy claims management platform to perform business operations.

In this manner, Syntel leveraged their automation platform's ability to seamlessly integrate IT systems with legacy screens using robotics coupled with complex event processing to overcome automation hurdles that traditional RPA products could not. The client was also able to take advantage of dashboarding and analytics for continuous improvement. As a result, the project led to:

- » An 85% reduction in effort
- » An 80% improvement in cycle time
- » Zero manual intervention

- » Zero defects

US Retailer

For a large U.S. department store chain, Syntel began implementing automation by performing an analysis of the automation potential and business impact. One of the early projects was a high priority effort to improve omni-channel sales performance by automating the majority of the “lights on” activities for the client’s e-commerce applications.

In just 6 weeks, Syntel was able to achieve 100% automation coverage for the monitoring and remediation of ecommerce applications by introducing automation libraries from SyntBots for ITOps. They automated key activities like batch cycle monitoring, reporting, store integration, pricing and promotions integration, and infrastructure availability. The results included:

- » Ticket handling time reduced from 45 to less than 5 minutes
- » 90% Effort reduction
- » 100% First Call Resolution
- » Ability to apply operational analytics to failures for root cause analysis
- » Enhanced visibility into each step of the process
- » Flexibility for the future with an easily configured rules engine for exception handling

The Future of Intelligent Automation

As the reference cases have shown, the deployment of Intelligent Automation should not be confined to notions of removing FTEs and thus cost, but should be part of an organization’s journey into the Digital Age. Or, as we at HfS call it, the As-a-Service Economy.

As part of this transformation, the emphasis should be on how experienced staff can be augmented by automation and other innovative approaches. Thus, the end-game is likely to be around domain-specific insights. As we have called out in Exhibit 1, the direction of travel is toward unstructured data and less well defined processes.

Therefore, cognitive engines cannot simply overcome badly defined process steps, but will evolve to self-remediating utilities that are crucial for this journey. The more process automation is accelerating, the more artificial intelligence that provides deep insights will come to the fore. It is for this reason that HfS is championing the notion of a **Continuum of Intelligent Automation**—so process owners have a plethora of different approaches to choose from and are able to seek guidance based on proven experience about where and how to start their journey with Intelligent Automation.

About the Author

Tom Reuner



Tom Reuner is Managing Director for IT Outsourcing Research at HfS. Tom is responsible for driving the HfS research agenda for the “As-a-Service Economy” across SaaS applications, cloud eco-systems and IT. Together with his HfS colleagues Tom continues to develop ground breaking research around process automation and cognitive computing in both IT and business processes. A central theme for all of his research is the increasing linkages between technological evolution and evolution in the delivery of business processes.

Tom’s deep understanding of the dynamics of this market comes from having held senior positions with Gartner, Ovum and KPMG Consulting in the UK and with IDC in Germany where his responsibilities ranged from research and consulting to business development. He has always been involved in advising clients on the formulation of strategies, guiding them through methodologies and analytical data and working with clients to develop impactful and actionable insights. Tom is frequently quoted in the leading business and national press, appeared on TV and is a regular presenter at conferences.

Tom has a PhD in History from the University of Göttingen in Germany.

He lives in London with his wife and in his spare time he is trying to improve his culinary skills in order to distract him from the straining experience of being a Spurs supporter.

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About HfS Research

We coined the **As-a-Service Economy** term because we see a profound change under way that is more all-encompassing than a simple business model or product line. It's a global shift that will leave few sectors of business or society untouched.

To help our clients and the market get to the As-a-Service Economy, we serve the strategy needs of business operations and IT leaders across finance, supply chain, human resources, marketing, and core industry functions in organizations around the world. HfS provides insightful and meaningful analyst coverage of best business practices and innovations that impact successful business outcomes, such as the digital transformation of operations, cloud-based business platforms, services talent development strategies, process automation and outsourcing, mobility, analytics and social collaboration. HfS applies its acclaimed **Blueprint Methodology** to evaluate the performance of service and technology in terms of innovating and executing against those business outcomes.

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