

INFOSYS SHOWS DISCOVERY-TO-DECISION PLATFORM INNOVATION WITH IIP

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The Details

The big data and analytics marketplace is evolving at breakneck speed today. Organizations are expanding their sources of data analyzed to include unstructured data sets, exploring ways to get faster reporting and analysis than the static reports of the past, and developing new ways to embed analytical insights into day-to-day decision-making. What this means for enterprises at the strategic level is a significant rethink in enabling this business transformation, resulting in investments in a select sub-set of the new generation of big data and analytics technologies that are available and growing today. Client organizations face a challenge here in selecting the right mix of tools and technologies from third-party and open source technologies. This often leads to two further challenges - hiring and retaining staff that are adept at finding and deriving the right insights in these complex environments, and getting locked into complicated and inflexible arrangements with third party technology and service providers. Sensing the opportunity here, Infosys has just taken to market its new Infosys Information Platform or IIP that seeks to address these challenges for client organizations. In this POV, we discuss the key compelling components of this new solution and its implications for Infosys and the analytics market in the near future.

IIP – What It Is and What It Does

Infosys' IIP addresses the key challenges that enterprises have in grappling with open source big data and analytics components - the lack of sufficient sophistication around packaging, development, administration and monitoring, and a lack of effective integration into organizational processes. IIP takes the leading open source components being used today and adds value by wrapping technology enablers and accelerators and services around them. Further, the company's managed custom implementation services help to customize, integrate and implement the open source platform alongside the enterprise's existing enterprise applications, and also to provide ongoing support for the open source components. Overall, the Infosys Information Platform is a framework that leverages the best of open source big data capabilities (to date), packages it in a way that can easily be consumed by enterprises, while adding in value with Infosys (or its partners) IP as appropriate in areas like development tools, solution-specific algorithms and data adapters. IIP can be deployed on public or private cloud or on-premise, and

while Infosys has so far run ongoing services around the platform in most engagements, it can be deployed on a self-serve model.

IIP essentially offers end-to-end, scalable, elastic and rapid data processing and reporting. Its capabilities can be harnessed to improve and achieve numerous industry-specific business outcomes, and it is particularly suited for business cases where clients are inhibited by lack of scalability and speed of reporting. For example, IIP was deployed as a POC for a financial major that engaged in 6 million trades a day in the financial markets, and needed to meet market regulatory requirements to report certain trades in a specified reporting format within a 15 minute window. IIP brought this trade data analysis and reporting down from 10 minutes to 35 seconds, avoided non-compliance and related penalties for the bank and was scalable and cost effective for future trade volumes.

Exhibit 1 outlines the Infosys Information Platform, and shows how the Infosys and partner built capabilities are added on top of various open source big data technologies.

Exhibit 1: IIP Solution Components



Source: Infosys, 2015

Key Success Factors

IIP, developed as a complete packaged solution only in the last few months, has certain compelling attributes that will help it gain market success and create differentiation. These include:

- » **Flexible and rapid deployment in different business scenarios.** Infosys has worked on several use cases with components of IIP so far, and one of its most compelling attributes has been speed to deployment and results. All of the use cases demonstrated to HfS Research were projects that were up and running in

a manner of a few weeks, from the time that data was available and use cases were developed to solve. In one example, Infosys worked with a client that had an existing data warehouse that they want to port to IIP to gain more flexibility. The service provider was able to achieve this within a few days with the help of its pre-built tech accelerators. Infosys foresees that the majority of its IIP deployments will have this rapid timeframe for deployment as well as getting initial analytical results. This is a sign of the growing maturity of big data technology deployments in general, and addresses enterprises' growing expectations of getting results faster, instead of the traditional waterfall multi-year IT implementations.

- » **Vision for end-to-end tooling for the enterprise big data and analytics environment.** IIP envisions cutting across an enterprise's entire stack of big data and analytics needs, from data discovery through to last-mile decision making from analytical insights. Accordingly, the service provider has drawn from its past experience in deploying components of IIP and its traditional analytics services business to fill in the gaps around technology and services support that inhibit successful big data and analytics deployments. In conversation with HfS, Ganapathy Subramanian, Infosys' VP, Big Data & Analytics explained, *"One of the key features of IIP are these tools and accelerators for clients to navigate through the complexities of skills and open source tools. E.g. If clients try to manually install these technologies, it could take several days, but we've created single installer using a compilation of scripts to bring installation down to a few hours. The whole idea of tooling is to be scalable. The way that open source big data technology world is changing, we believe our clients are covered because even if the underlying tool changes, our time to get up and running is reduced. Client systems will typically have different data sources to be pushed into data lakes. We have a data ingestion tool for this, where the drivers are configured, along with the screening mechanisms for data lakes, file systems, pulling data from the web, etc. We have tools to schedule and run these jobs in real time in a graphical way. Once you have all the data, you want to look at various permutations of data cuts. We have an accelerator called Data Explorer that does this with easy GUI to do data modeling with varying levels of complexity for different users. Our data scientists help clients look at patterns and opportunities to embed machine learning by connecting to the open source tools of choice. Finally, the platform has flexibility in displaying the final outputs through different visualization tools that are configurable to layer on top of the big data platforms being used. Another aspect around enterprise applications is security, governance and high availability. In tooling and open source technology integration, we have taken care of many pieces around authorization and authentication for data access. This is the real gamut of end-to-end tooling we have with IIP."*
- » **Flexible commercial model with no vendor lock-in.** Most service providers that support big data technologies such as Cloudera and Hortonworks maintain commercial models with support fees per node and licensing costs for maintenance. Conversely, Infosys' initial set of customers for IIP have a fixed price arrangement for end to end support, including bringing in data scientists for high end analysis. In the case of ongoing maintenance, the service provider would have a similar model to other vendors - fees for initial implementation, followed by premium support and support contracts. However, Infosys believes that the value it can add will be through high-end services that it is building on top of these technologies. This means that the service provider won't be playing for the increasingly commoditized licensing revenues for open source technology deployments, and is open to clients that would like to price by outcome or business value. Further, another compelling attribute of the platform is the lack of a vendor lock-in clause. While the company brings its own IP in terms of toolsets and accelerators, it recognizes the

need for flexibility with clients around emerging technology deployments and is pitching a company-agnostic maintenance for the solution.

- » **Focus on services with talent as the key differentiator.** As mentioned above, Infosys believes that despite its investments in big data and analytics technology, its real value add will come from services support, particularly in the data sciences domain. Today, talent needs in this growing industry are not well defined or cost effective for enterprises to hire and develop internally. Infosys is thus trying to bridge this gap, with a team of 200+ data scientists in its consolidated analytics practice that it is looking to double in next few months. Towards this, it has also forged a strategic partnership with the Institute for Computational & Mathematical Engineering (ICME) at Stanford University to develop curriculum in Data Science and Analytics focused on real-world problem areas and undertake joint research using Data Science to find solutions to key industry issues using real client examples.

What to Watch

We have outlined the key areas that will work in Infosys' favor as it rolls out this solution to the market in 2015. However, it faces several challenges. So far the use cases have involved many but not all of components of the IIP solution, and the service provider will have to work hard to prove its business case as an 'end-to-end' platform. Infosys will also need to develop several use cases that solve specific business challenges across verticals. Further, Infosys will need to compete against a market that is seeing a lot more investments and use cases from leading service providers around using analytics platforms to deliver insights. These are both proprietary technology platforms (such as Accenture's new 'Accenture Analytics Applications Platform' and Xerox's integrated healthcare platform, 'Midas+ Juvo Care Performance Platform') as well as mash-ups or customized versions of best-of-breed open source data and analytics technologies such as Infosys' IIP. HfS sees an increased realization of what in the last couple years was more a vision than a reality: 'analytics as a service'. The proprietary/open-source big data analytics technology platform + services wrapper concept is not new to the market today, and Infosys will need to fight for its share among competitors such as Accenture, Cognizant and IBM. Finally, the community theme is not lost on us – Infosys is pledging to contribute back to the open-source communities in the form of advancements it has made along the way in developing IIP. If it wishes to be this harbinger of open innovation in big data and analytics, it must 1) continue to expand its partnerships and alliances to foster innovation (e.g. how a Tableau partnership coming in handy for integration with Apache Spark in IIP) 2) make sure that its expertise in big data and analytics **services** continues to strengthen.

IIP was green-lit soon after Vishal Sikka's appointment as CEO of the company, and is reportedly part of his personal company initiatives. In our recent [blog interview](#) with Vishal, he referenced HfS' As-A-Service economy and explained Infosys' new thinking around growth, *"We actually live in a software-defined world, in every industry and in every walk of life. But while the word software has somehow become associated with products, this is not the point. Infosys is a services company, and will remain a services company. The entire point of the economy around us is the "As-a-Service Economy". And erstwhile product companies are looking to become services companies. So for us to become a product company would completely miss the point. Our goal is to stay a services company and deliver, however we want to deliver more and more value using software, using IP, using reusability of components and capabilities across engagements. That is exceedingly important, and transformational."* IIP is one of the first outcomes of this IP-powered services framework that Vishal wants to build at Infosys in the next

few years. We will continue to track Infosys' trajectory in this space as it tries to invent its business model around big data and analytics. We will further evaluate the company's performance in our upcoming HfS 2015 Enterprise Analytics Services Blueprint, to be published in Q1 2015.

About the Author

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Reetika Joshi is a Research Director at HfS Research. She currently tracks verticalized technology-enabled BPO opportunities in insurance and retail. Her research coverage also includes enterprise analytics services and the scope for core marketing operations (including digital, social and analytics opportunities) to tie into the end-customer experience for client organizations. She regularly contributes to HfS' research content in the form of HfS Blueprint reports, PoVs and blog posts. She also supports custom research and strategy projects; analyzing data, supporting client inquiry, conducting regular discussions and briefings with both buyers and service providers, providing consultative, analytical and expert support to HfS clients.

Prior to HfS, Reetika spent three years working with the sourcing research wing of business research and consulting firm ValueNotes. Her last profile as Project Manager encompassed a range of responsibilities including research product design and development, managing custom research engagements, developing thought leadership through targeted content and community interaction, and supporting the business development team. She was also responsible for driving the unit's web and social media strategy and presence.

Based in Cambridge, MA, Reetika has undertaken several research assignments across the outsourcing spectrum, including market studies in niche areas such as analytics, medical transcription, market research and e-learning. She has served clients through multiple bespoke research engagements, including in-depth competitive intelligence studies, market and investment opportunity assessments, demand-side surveys and marketing communication optimization for outsourcing buyers, providers, consultants and investors. Her work has appeared in many industry-relevant publications and websites, including Outsourcing magazine, Global Services Media and the Horses for Sources blog. She has presented her views on the state of the outsourcing at various conferences.

Reetika has completed her Masters in Marketing Management with distinction from Aston University, UK, receiving Beta Gamma Sigma honors. Prior to this, she received her Bachelors in Business Administration with distinction from Symbiosis International University, India.

On a more personal note, she enjoys reading fantasy series, travelling to world heritage sites and kicking back with strategy/simulation gaming.

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HfS educates and facilitates discussions among the world's largest knowledge community of enterprise services professionals, currently comprised of 150,000 subscribers and members. HfS Research facilitates the **HfS Sourcing Executive Council**, an acclaimed elite group of sourcing practitioners from leading organizations that meets bi-annually to discuss the future direction of the global services industry and the future enterprise operations framework. HfS provides Sourcing Executive Council members with the HfS Governance Academy and Certification Program to help its clients improve the governance of their global business services and vendor relationships.

In 2010 and 2011, HfS Research's founder and CEO, Phil Fersht, was named "Analyst of the Year" by the International Institute of Analyst Relations (IIAR), the premier body of analyst-facing professionals, and achieved the distinction of being voted the research analyst industry's Most Innovative Analyst Firm in 2012.

In 2013, HfS was named first in increasing influence among leading analyst firms according to the 2013 Analyst Value Survey and second out of the 44 leading industry analyst firms in the 2013 Analyst Value Index.

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