



Mylan:

Creating A Cloud First Agile Infrastructure

“I joined the company during a time of transformation. Because of this organizational evolution, we needed to make some adjustments to our IT infrastructure and service delivery to support the company’s fast-paced growth. Not only did we need to change the organization — and that took a lot of effort — there was just a clear acceptance that we had not been making the right investments in IT ...We have a mission to deliver access to high quality medicine to the world’s seven billion people. And you can’t do that being a traditional pharma company. That’s going to take continued transformation and new capabilities within IT.”

— Tim Harris, Vice President of Global Information Technology Infrastructure, Mylan

The Back Story

Mylan is one of the world’s largest generics and specialty pharmaceutical companies, offering a growing portfolio of more than 1,300 generic pharmaceuticals and several brand medications. In addition, Mylan offers a wide range of antiretroviral therapies, upon which approximately 40% of HIV/AIDS patients in developing countries depend. Mylan has a workforce of more than 20,000 people and currently markets products in approximately 140 countries and territories.

Creating Alignment

Mylan has experienced fast growth. In the mid-2000s the company had a few thousand employees. Then in 2007 it acquired two companies, acquisitions that took it global almost overnight and quadrupled its employee headcount. With big plans for the future, the company expects to double again in the next five years.

To keep up with its growth – and scale into the future – Mylan began a global transformational initiative in 2012. The goal: enable the company to realize its growth goals, which include

doubling its manufacturing capacity and product portfolio. The company also wanted to create better alignment and engagement between Mylan IT and its business partners, which meant rethinking how IT engaged with the business.

As part of its transformation, new IT leadership was brought on board, including Global CIO Michael Smith, who came to Mylan from Nike and brought a different mindset to what IT is all about. He introduced TBM to the company and brought Tim Harris on board as the new Vice President of Global Information Technology Infrastructure. The duo's initiatives included:

- Create better alignment and engagement between Mylan IT and its business partners.
- Continue in the vein of Mylan's DNA of thinking differently about how IT — and infrastructure services — could be structured.
- Continue to push the technology envelope, adopting a Cloud First strategy in a highly regulated industry that often does not embrace newer technologies.

"The absolute driver for us for everything that we do right now — it's all about scale and agility," said Harris. "That is the number one underlying tenet that we talk about in IT and especially within infrastructure."

Transforming for Scale

Given the speed at which Mylan operates and its rapid expansion in a relatively short period of time, the company was beginning to outgrow its existing IT architecture. In fact, because Mylan transformed from a domestic company into a global powerhouse relatively quickly, the company did not have a broad-scale enterprise IT architecture in place. Instead, IT had primarily focused on implementing point solutions to meet an immediate business need, without any true integration strategy.

The IT infrastructure, in other words, was less than ideal and required substantial improvements to support the company's continued growth.

The Road to TBM

Taking Stock

"One of the things I wanted to do when I joined was take infrastructure out of the back office and move it into the front office," said Harris. He began by taking inventory of IT's existing technology portfolio and evaluating the business value and strategic importance of every application and technology. The team prioritized accordingly, particularly from an infrastructure perspective. The department then implemented a Capability Framework to understand what capabilities it needed, which ones

it already had and where they stood from a maturity perspective. Harris's team then developed a formal TBM portfolio management process for investing in new capabilities and innovation to ensure IT was aligned with the business, and to add a mechanism to quickly integrate IT services and capabilities for mergers and acquisitions. "From a portfolio standpoint, we needed to get a better grip on knowing where our IT spend was going," said Harris.

To reduce operational costs and free up resources to reinvest in new capabilities, and fund innovation, IT implemented a global infrastructure shared services model. That was just the start of its transformation.

Pushing the Technology Envelope

"We want to be fast-paced and we want to deliver ahead of our competition, so we needed an infrastructure that was agile," said Harris. With that goal in mind, IT developed its Cloud First strategy — an often times counterintuitive approach in the regulation-heavy pharmaceutical industry — choosing to cloud-source a lot of what the company does.

In big pharma, says Harris, there is often a hesitancy to adopt new technology, including anything cloud. "You have to do it right. The regulatory agencies are very critical and they want to ensure that quality is top priority. There is a perception when you move to the cloud you lose control — you potentially lose some privacy," he said. "We're spending a lot of time on due diligence to make sure that we are absolutely secure and safe and private."

Part of that strategy is being "very aggressive" in working with public cloud providers to ensure that the way they operate will meet the needs of the regulatory agencies. Mylan is doing its part in this endeavor. It has partnered with Amazon Web Services in a unique relationship that enables Mylan to physically connect the 'pipes' in its east coast data center with that of AWS, since they are located literally across the street in a neighborhood outside of Washington D.C.

A Strategic Partner

Partnering with outside vendors to achieve its Cloud First goals wasn't enough; Harris and his team had to work on internal relations as well.

Based upon TBM best practices, Mylan IT developed a new approach to how it manages the business of IT — one that positioned it to collaborate more with business partners to ensure IT is aligned with overall strategy. And, perhaps more importantly, to have more meaningful conversations with the business about demand and ensuring the company is maximizing the value of its IT investment portfolio. In this respect, Mylan's efforts have done much to improve agility and variabilize costs to improve business alignment. It's also changed the relationship between IT and the business.

“With TBM it’s now about having a seat at the table and being a strategic partner with the business, as opposed to just being a cost center or a necessary evil,” said Harris.

Outcomes

The Need for Speed

According to Harris one of the most notable aspects of Mylan’s Cloud First strategy is the speed of implementation it affords. In less than three months IT moved all 20,000-plus employees from a legacy collaboration system to a cloud-based collaboration system. The company rapidly moved from an antiquated Lotus Notes system that “really didn’t work well unless you were in the office,” according to Harris, to Office 365. This introduced a whole new level of mobility and BYOD at Mylan.

In the last 18 months, IT has deployed additional cloud-based solutions at Mylan. It has taken 60 to 70 disparate individual human resources systems and consolidated that into one HR system. It has also added a cloud-based social business platform and made significant improvements to its video platform that achieve one of IT’s primary goals: to enable employees to connect, communicate, and collaborate across the globe.

“The moment of impact for me was when we converted the company from the on premise collaboration system to Office 365,” said Harris. “At that point we had enough critical mass that the company believed in the cloud as a true enterprise solution. It opened the door for this future strategy and everything that we’re going to do.”

Material Impacts

Mylan’s Cloud First strategy has had material impacts on the bottom line. The IT department pairs TBM methods with a Cloud First strategy to reduce TCO costs by up to 30%, in addition to the dramatically reduced delivery timeframes, and improved employee productivity. “Going forward, it will reduce capital investments by

over 80% and operating expenses by approximately 30%,” said Harris.

End user performance monitoring enhancements have provided much greater insight into the performance of the existing architecture and helped to identify opportunities for improvement. “As IT continues to move away from simply being a ‘service provider’ at Mylan, the insights gained through our end user performance monitoring have helped us become better partners with our lines of business by giving us a deeper understanding of their experience,” said Harris.

It’s a Journey: Next Steps

While Mylan has made significant progress with its Cloud First strategy, Harris concedes that its IT transformation, helped by TBM, is a journey. His next steps: Continue down the path of enabling cloud technologies in a manner that satisfies regulatory scrutiny. And then find a way to utilize the data that’s being gathered in this new approach.

In the fourth quarter of 2014, Mylan IT will implement a dedicated network connection from its data center to AWS that will further reduce network costs, increase bandwidth throughput, provide a more consistent network experience, and facilitate new growth in the cloud. It will also provide all the benefits of a cloud service provider relationship, while technically enabling a direct connection to AWS. “Because we can create this direct connection it’s a private network into the Amazon cloud,” said Harris. “We’ll have a direct, secure, private network.” The hardware itself will be a shared, public cloud infrastructure.

Separately, IT is amassing a “tremendous amount of data” in its cloud-hosted repository, which it moves to SAP Hana for analysis. “This additional insight will further help us shift the conversation from technology costs to the cost of providing services at Mylan,” said Harris.



About the Technology Business Management Council

The TBM Council is a group of more than 1,200 CIOs and other business and technology executives who are passionate about applying business disciplines to better run their technology organizations. Founded by [Apptio](#), the leading and independent provider of TBM solutions, the TBM Council is governed by an independent board of directors and is a nonprofit organization. Apptio remains the Council’s [technical advisor](#).

Our mission is to serve our members and the CIO profession by defining a decision-making framework that creates and sustains business value by balancing the supply of and demand for technology services. The Council’s objectives are to publish a generally accepted set of TBM practices and facilitate benchmarking by business technology leaders against those practices.

The Council is open to any [qualifying](#) CIO or senior IT executive. Learn more at [TBMCouncil.org](#).