After a 2016 merger, IHS Markit, a leading provider of information, analytics and solutions, sought to bring together the IT operations of its two component companies. The new global organization had several goals: Establish an easier-to-use, faster IT infrastructure that could handle the billions of gigabits of data the company processes each day, help its thousands of developers bring innovative products to market quickly, and bring these two functions together using both private and public clouds. With solutions for a modern and secure software-defined data center, the business achieved frictionless IT, in a fast and secure way.

IHS Markit provides information, analytics and solutions to support the decision-making process of businesses and governments in industries such as finance, aerospace, defense and security, automotive, chemical, energy, maritime and trade, and technology. The company works with 85% of the Fortune Global 500 and provides them with unique information, analytics and solutions.

The Challenge

IHS, a Colorado-headquartered organization that provided information and analysis to a range of companies, and Markit, a London-headquartered global financial information services provider, merged in July of 2016. As a unified company, IHS Markit collects data from many global sources, analyzes it and produces insights that help its businesses and government customers make informed strategic decisions.

With several thousand developers on staff, nine data centers and billions of gigabytes of data refined and distributed each day, IHS Markit relies heavily on its IT infrastructure. However, traditional IT processes were slowing the business. For example, as a global information company, IHS Markit must comply with a range of standards such as PCI for the financial industry, SOC 2 for information security and HIPAA for healthcare. Meeting these standards requires rigorous logging. “It’s a lot of manual gathering,” said Andrew Hrycaj, Senior Network Operations Specialist at IHS Markit. “For all these disparate components – firewalls, load balancers, switches – everything is in separate control planes. It’s time consuming to be constantly pulling these reports.”

The key challenge was making sure that IHS Markit created a truly software-defined platform across both sides of the business, which would ensure visibility across the estate rather than running in separate silos. IHS Markit also wanted to achieve what they call “frictionless IT” so that the teams could build what they needed to build without any obstacles.
“The automation and agility that we get from VMware NSX and VMware vRealize really help to reduce our time to market.”

BEN TANNER, DIRECTOR
HEAD OF CLOUD ENABLEMENT
IHS MARKIT

VMWARE FOOTPRINT
- VMware vCloud Suite Advanced
  - VMware vRealize Operations
  - VMware vRealize Log Insight
  - VMware vRealize Automation
  - VMware vRealize Business for Cloud
- VMware NSX
- Palo Alto Networks

The Solution
Building on the two companies’ separate pre-merger footprints, IHS Markit now uses a suite of VMware solutions for modern, software-defined data centers.

“Fortunately, the two companies had made many of the same technology decisions prior to the merger,” said Ben Tanner, Director, Head of Cloud Enablement at IHS Markit. “IHS and Markit were both VMware customers, so the merger was actually an opportunity to ensure that the right products were selected to run through the entire organization.”

Markit was already using VMware vRealize Orchestrator®, while IHS had already started the private cloud journey. That made it simple to roll out virtual machines and software-defined data center (SDDC) technologies quickly into IHS Markit and continue to build a unified private cloud. “It has meant we’ve been able to build a cloud automation team that’s really pushing forward this technology stack for us,” said Tanner. “Where one of the companies wasn’t leveraging a particular VMware product, but the other one was, we used it as a springboard to drive it across the whole company.”

To get new products into the marketplace quickly, “It’s automation, automation, automation,” said Ian Barraclough, Senior Director of Enterprise Architecture at IHS Markit. “We’ve got to provide a self-service environment that our developers can consume. And the corollary of automation is speed.” VMware vRealize Automation® is a key part of delivering these environments, said Barraclough. “We’ve had great success in rolling out a private, on-premise cloud with vRealize Automation. We’ve delivered infrastructures as a service to key product groups that are accelerating their delivery by orders of magnitude.”

VMware NSX® allows IHS Markit not only to secure their workloads at a granular level with micro-segmentation, but also allows them to fundamentally re-think network design. The as-a-service model replaces the old paradigm of multiple firewall rules, tickets and wait states to establish new computing infrastructure.

Barraclough explained what the company calls new “birthright rules” for these items. “Because you were ‘born’ on a web server, for example, you should be able to speak with an app server in the same application footprint. Because you were ‘born’ on an app server, you should be able to speak to a database server within that same application footprint. All these rules are laid down by default with NSX, so when a developer deploys an app of a given type, the rules are already there. It’s done. It’s transformational.”

NSX and vRealize Automation not only create new environments quickly, they also destroy them quickly and cleanly once they are no longer needed. “When we bring up an application it’s automatically dynamically tagged and associated with the security policies that we’ve created,” said Hrycaj. “Then when it’s destroyed it automatically cleans it, so old architecture isn’t sitting around wasting compute and resources. We can decommission old equipment that no longer meets our developers’ needs, thus saving money.”

IHS Markit has been developing infrastructure across multiple cloud environments, including Microsoft Azure and Amazon Web Services. Using VMware cloud solutions, said Hrycaj, “allows us to be able to take all this work we’ve already done on our security footprint and extend it into the cloud through a single control plane. The ability to not have to go through that process again gets us to our goal even more quickly.”
“The great thing about VMware NSX for us is that security is baked into the product – it’s not an afterthought. So we don’t only get the network automation benefits, but we know that when we push something out and when our developers deploy their code, it’s secure from day one. VMware NSX makes security easy.”

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DIRECTOR, HEAD OF CLOUD ENABLEMENT
IHS MARKIT

Business Results & Benefits
Deploying NSX and the vCloud Suite across the organization has helped IHS Markit to increase its time to market rapidly at a time when the company wants to be able to release products as quickly as possible to maintain a competitive edge.

“The automation, and therefore agility, we now have from deploying VMware NSX and VMware vRealize Automation have really helped reduce our time to market. The time savings are a game changer for our developers. Changes can be made to our systems and be up and running a couple of hours later in production, rather than the legacy release cycles we used to see in our market – where it could take weeks from inception through to fruition due to a number of compliance steps needed in server provisioning. VMware’s given us that massive advantage in time to market,” said Tanner.

Previously, the company would have had to update its software platform to incorporate new features – with six to 12 updates a year. Now, as a result of using VMware vRealize Automation, IHS Markit can get a constant flow of new releases regularly, meaning customers get more innovative solutions through a far more agile delivery method.

Meanwhile, with VMware NSX, IHS Markit is rapidly pushing changes into the environment in a risk-averse way. Previously, the company had employees manually fixing and updating the network, switches and configurations. Now, it can make these changes on demand, and this can be driven by the developers.

“When they want to make a change to their application, add additional functionality, or enable a new database platform to talk to another as part of the data center, they can define this themselves and VMware NSX pushes it out onto the network for them, with my team able to ensure governance around that,” said Tanner.

“The great thing about VMware NSX for us is that security is baked into the product – it’s not an afterthought. We don’t only benefit from network automation, but we know that when we push something out and when our developers deploy their code, it’s secure from day one. VMware NSX makes security easy,” he added.

Looking Ahead
“As an organization, we need to be incredibly agile in order to disseminate and process information quickly. That means leveraging a lot of cutting-edge technologies,” said Tanner. IHS Markit will continue to build out its private cloud based on VMware data center solutions. Tanner noted that “It’s been an exciting challenge so far and has meant we could push forward with strategies like private cloud, network virtualization and more and more automation. We’re continuing to look at how we can do more with less and we’re trying to drive through these exciting changes in the organisation now.