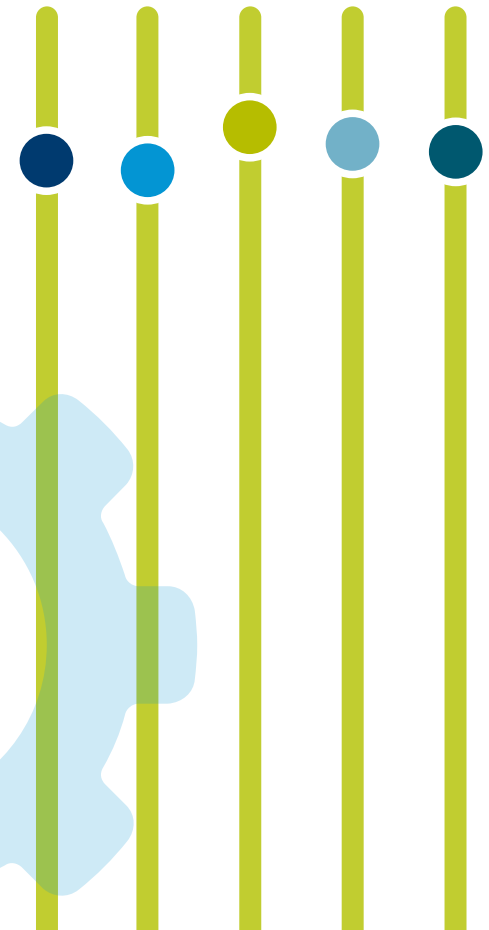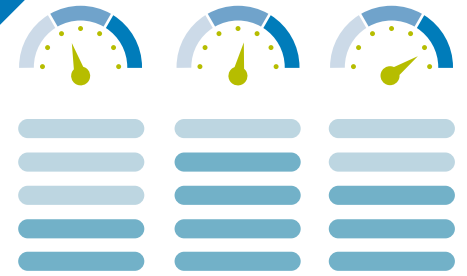# How IT Automation with Network Virtualization Works

Deliver IT Services at the Speed of Business

**vm**ware®

# It's Time for a Status Check on the Network

If your IT team is like most, you are seeing massive growth across data, applications, and business users. You are also probably noticing that your physical network is struggling to keep up. Without the right tools, you can't move as fast as the business, creating a dangerous mix of backlogged tasks, service requests, and urgent security needs.

## Legacy networks hold you back for three main reasons:

**1 Manual configuration and processes**

IT teams use all their hours doing mundane, repetitive tasks that could be completed quickly with automation.

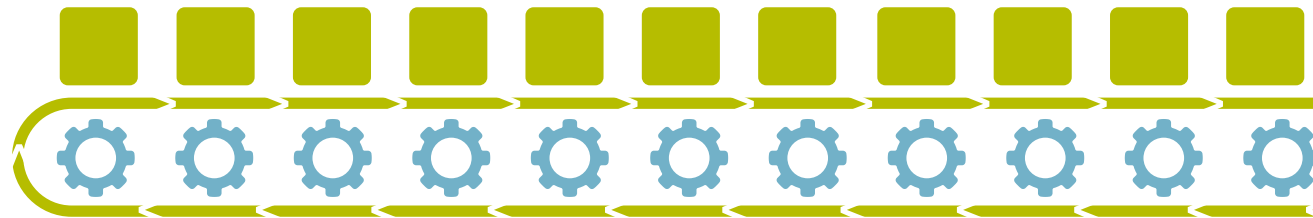**2 Physical network complexities**

Physical networks are slow and cumbersome, requiring complicated processes and tedious manual labor to keep them running.

**3 Inconsistent service delivery**

With legacy network solutions, IT is tasked with complex, error-prone manual processes across siloed teams.
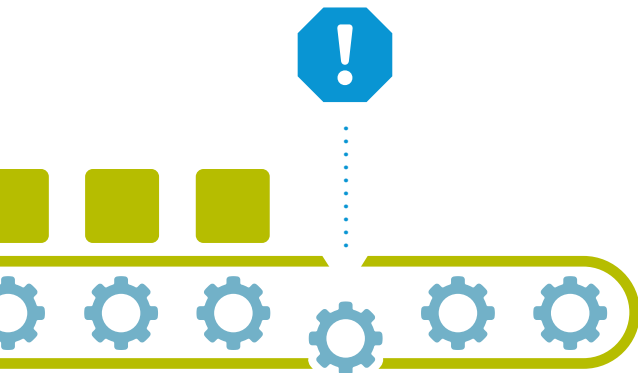
It's time for a change.

# Network Automation Helps Move You Forward

By moving networking and security services into the data center virtualization layer, infrastructure operations can achieve the same automated operational model of a virtual machine, but for networking and security.

## With automation, you can:

**Reduce operational expenses**

**Speed time to market**

**Make IT service delivery faster and more reliable, less prone to errors associated with manual configuration**

The right network automation tools help you work smarter, not harder. Your IT team can stop spending time on rote tasks and focus on innovation and more strategic priorities.

# A Comprehensive Solution for Automation

VMware NSX® is the network virtualization platform for the Software-Defined Data Center (SDDC), making network and security operations more agile and cost-effective. With the integration of NSX and VMware vRealize® Suite you can fully automate the delivery and ongoing management of networking, security, infrastructure, and application components.

The specific automation capabilities of VMware vRealize® Automation, a component of vRealize Suite, combined with NSX enables you to:

**Deliver services faster.** Provision, update, and decommission network and security services in lockstep with your virtualized applications.

**Deploy applications with confidence.** Use automation to deploy network and security services automatically, while maintaining connectivity, security, and performance requirements.

**Improve app availability.** Rest easy knowing your dynamic configuration of network load balancers keeps performance high.

**Support bimodal IT.** Implement multi-machine blueprints, service catalogs, and governance capabilities as part of traditional IT models and/or enable agile DevOps models.

With automation you can finally move at the speed of business.

# Save Time with Automated App Delivery

When apps can be delivered fast, everybody wins. But legacy solutions make it nearly impossible to provide applications on demand. Automation in the context of a virtualized network enables you to dynamically configure application services right when your users need them.

## With automation, you can expect to:

**Automate delivery of secure, scalable, and high-performing multi-tier applications**

**Reduce total provisioning time from weeks to minutes**

**Deliver services to the business when they need it**

# Eliminate the Human Error Factor

Manually provisioning infrastructure and applications not only takes time—it's also prone to error. Even the most experienced IT professional occasionally makes a mistake, and the fallout can be tremendous. Finding and fixing issues is both expensive and time-consuming, which puts a considerable strain on resources.

## With automation, you can expect to:

**Accelerate workload deployment**

**Increase consistency of service delivery with standardization**

**Enhance security by eliminating error-prone manual configuration processes**
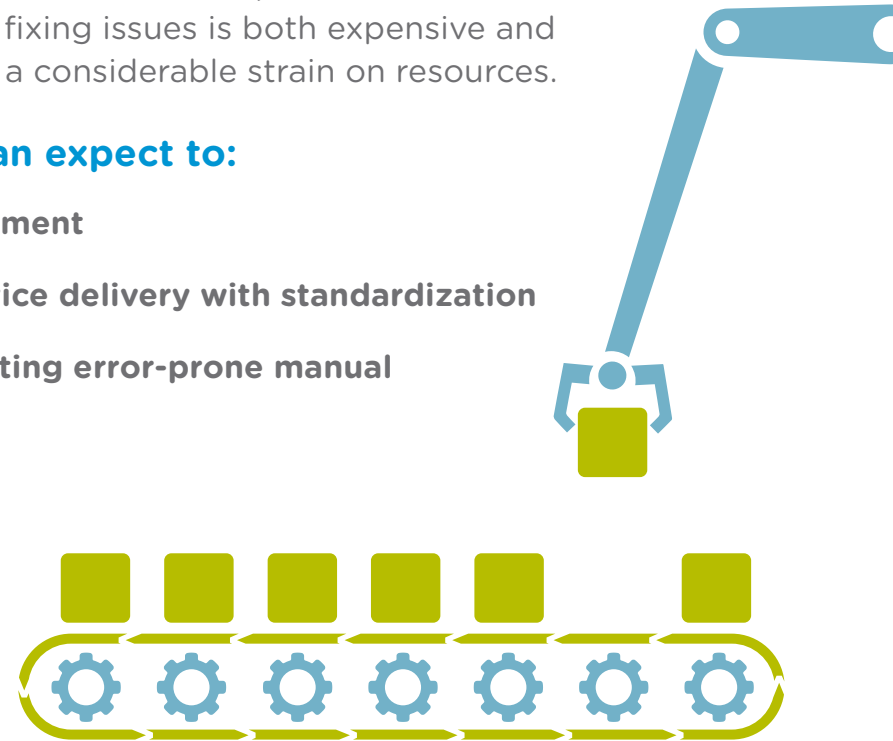
# Stay Consistent with Automated Policy Changes

When apps update or workloads change, IT teams have to reconfigure security and policy changes. And just like provisioning and deploying applications, this process takes time and leaves ample room for mistakes or errors. NSX makes it possible to automate updates and changes, turning what was formerly a manually intensive process into an automated streamlined process.

## With automation, you can expect to:

**Standardize configurations**

**Eliminate configuration drift**

**Employ centrally updated policies**

## Realize the Benefits of Automation

### Connectivity

vRealize Automation resource reservations, service blueprints, and network profiles assure that each application receives the right level of network connectivity, with the appropriate service level.

### Security

Applications can be deployed on demand with network security at the application level or between application tiers to ensure that firewall rules are placed as close to the VM as possible.

### Performance

Governance policies and automated delivery can be used to meet specific network performance needs of each application deployed.

### Availability

Improves app availability through dynamic configuration of network load balancers in the context of deploying or updating application configurations.

# How it Works:
# Automation in Action

Wondering if IT automation really delivers on its claims? Don't take our word for it—VMware customers are already putting it to work and seeing incredible results.

Here's how to organizations are using automation with network virtualization to improve IT service delivery.

# University of New Mexico

The University of New Mexico was experiencing slow and inconsistent delivery of IT infrastructure services. With a lack of automated processes, and insufficient resources to manage IT infrastructure at the departmental level, it was time for a change.

## With VMware NSX combined with vRealize Automation, they can now:

Improve service delivery and centralize the management of core IT functions.

Give faculty and staff access to central infrastructure services via a private cloud, while maintaining control of their own department-level IT functions.

Deliver personalized IT services, reduce deployment times for new machines, and decrease operating costs.

> " *The way NSX and vRealize Automation has helped us is we can template environments and spin up VMs with appropriate networking and security and say this system is HIPAA compliant.* "

*Brian Pietrewicz*
*Director of Computing Platforms*

**UNM**
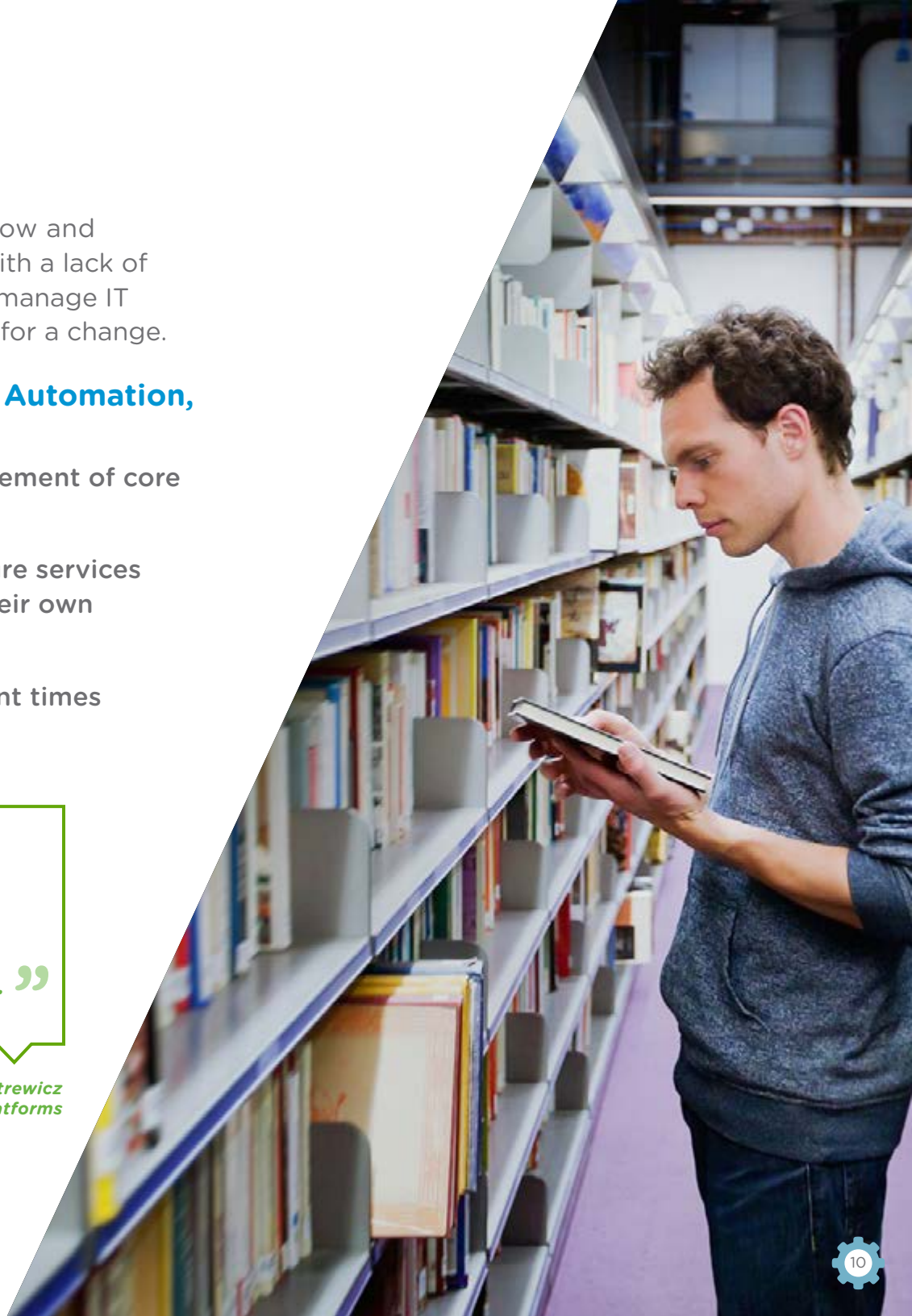
# King Abdulaziz City for Science and Technology Internet Services Unit

Located in Saudi Arabia, King Abdulaziz City for Science and Technology Internet Services Unit (ISU) provides networking and compute resources to academic and government institutions. They needed the speed and flexibility the cloud offers—without risking security or performance.

## With VMware NSX and vRealize Automation, they can now:

**Deliver services that used to take 4 days to 3 weeks in under an hour**

**Provision multi-tiered applications with application-centric network and security**

**Devote more time to new projects and innovation**

> " *The implementation of cloud services with VMware has given us a great opportunity to lead the market in Saudi Arabia in a growing education and government sector.* "

*Abdulmajeed Al-Osaimi,*
*Systems and Development Manager*

مدينة الملك عبدالعزيز
للعلوم والتقنية KACST

The automation delivered with NSX and vRealize Automation gives you the ability to accelerate the delivery of network and security services customized to the specific needs of your applications.

Now is the time to learn how automation can help you move at the speed of business.

**Ready to take the next step?**

**Learn more about VMware NSX >**

**Get expert network virtualization training >**

**Join Us Online**