

Software defined networking

Your path to an agile hybrid cloud network



Is your enterprise network ready for the latest business and consumer trends?



■ **Cloud**

How easily can your users connect to cloud resources?



■ **Big data and analytics**

Can your network scale to support big data and deliver insights fast?



■ **Security**

Is your network effectively serving as the first line of defense?



■ **Social business**

Can your network handle the explosion of social media inside and outside the enterprise?



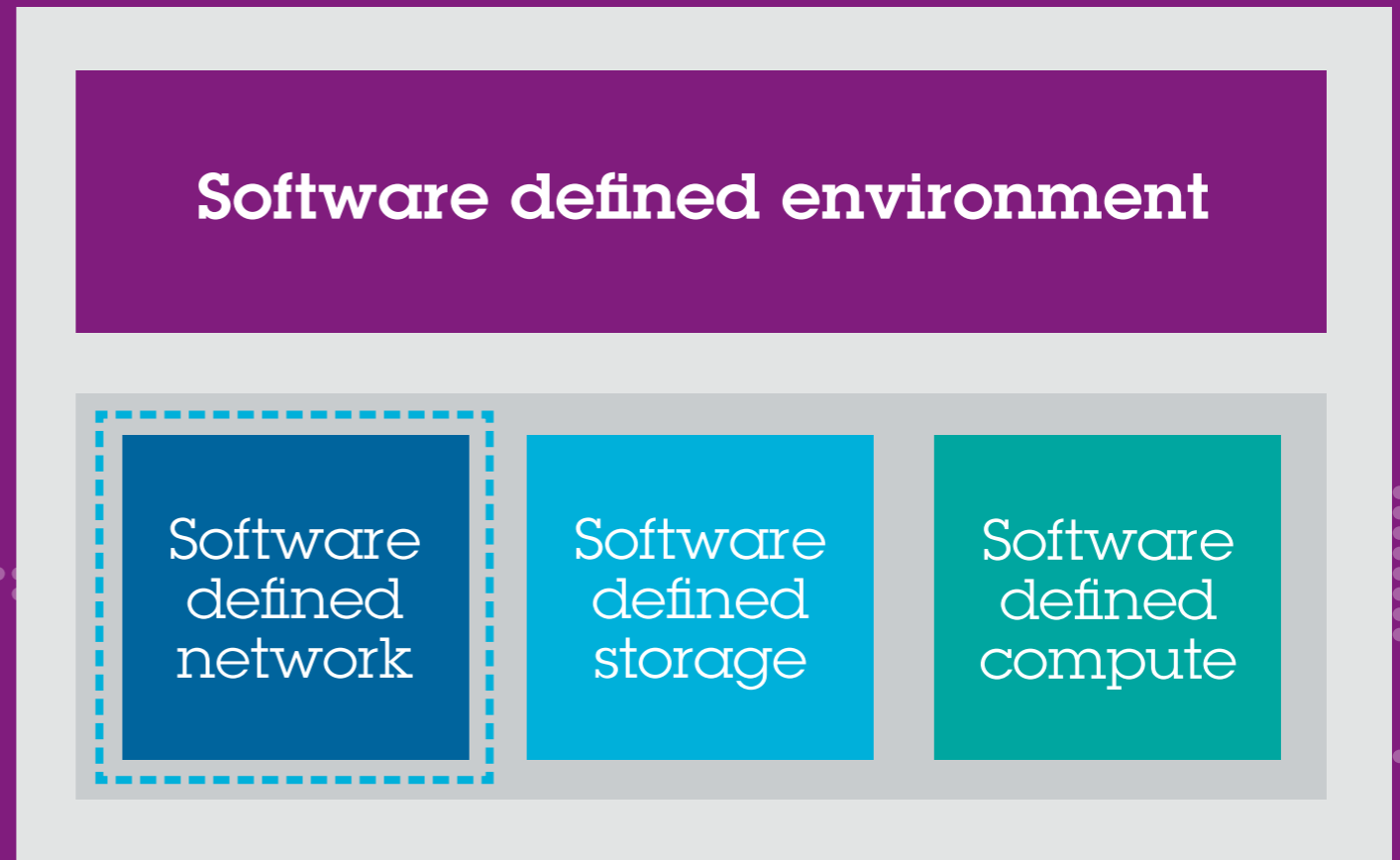
■ **Mobility**

Can you provide high quality of service and anytime, anywhere access on any device?

Prepare for a changing world with a software defined environment (SDE)

What is an SDE?

An environment that incorporates flexibility, automation, high availability and open standards into your IT landscape





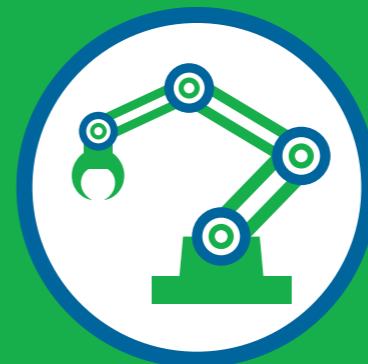
Maximize agility with software defined networking (SDN)

To make the most of an SDE, virtualize the network just as you've virtualized servers and storage.

SDN offers:



- **Flexible** network traffic routing



- **Automation** of network operations



- **Programmable** network controls



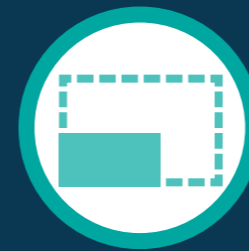
- **Centralized** network management

The benefits of SDN



Faster time to value

- Implement new services and applications in minutes
- Deploy applications and network functions together



Easy scalability

- Scale capacity rapidly to meet changing needs
- Connect and leverage cloud resources



Reduced operating expenses

- Automate and centralize operations
- Optimize network investments



Enhanced security

- Conduct micro-segmentation of network, applications and users for higher security
- Deploy consistent security policies across services and locations

Use case: Enhance agility

Accelerate provisioning

Need: Deploy new applications and services quickly

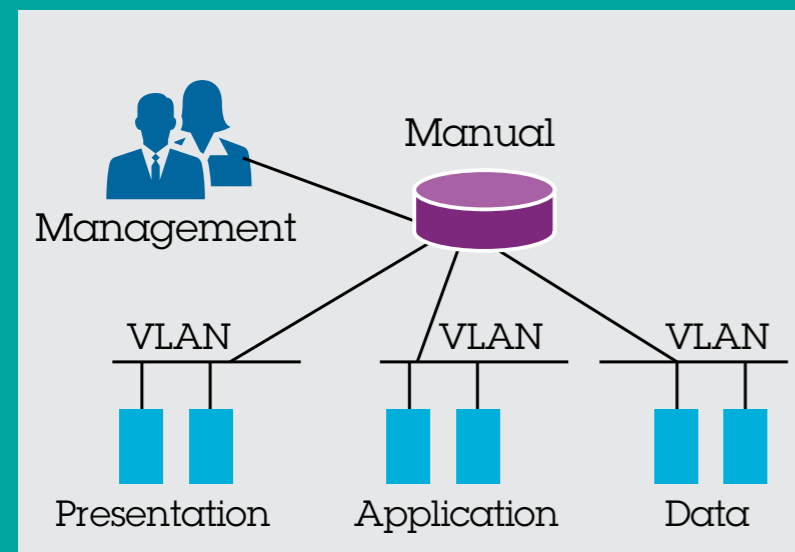
Solution: Provision in minutes with reusable network templates that deploy virtualized networks with all requisite capabilities (switches, firewalls, load balancing and more) already automated and orchestrated.

Rapidly scale resources

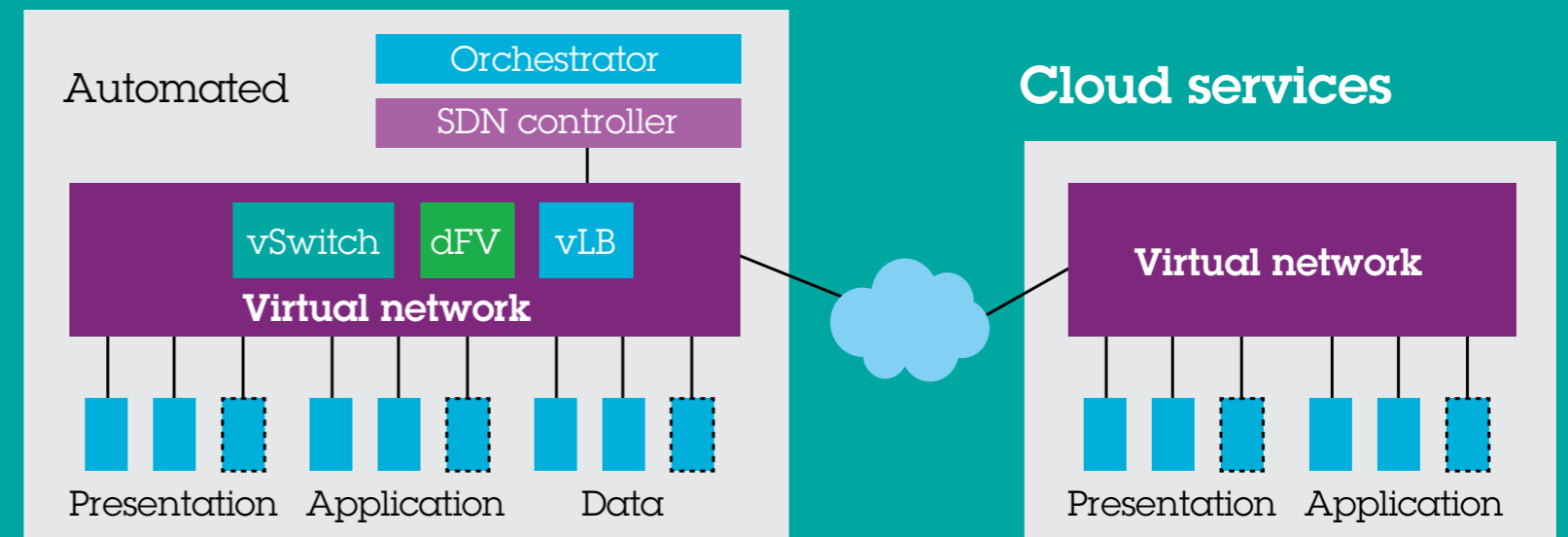
Need: Accommodate demand spikes

Solution: Adjust network and security configurations to scale with demand spikes.

On-premises data center



On-premises data center with SDN



Use case: Tighten security

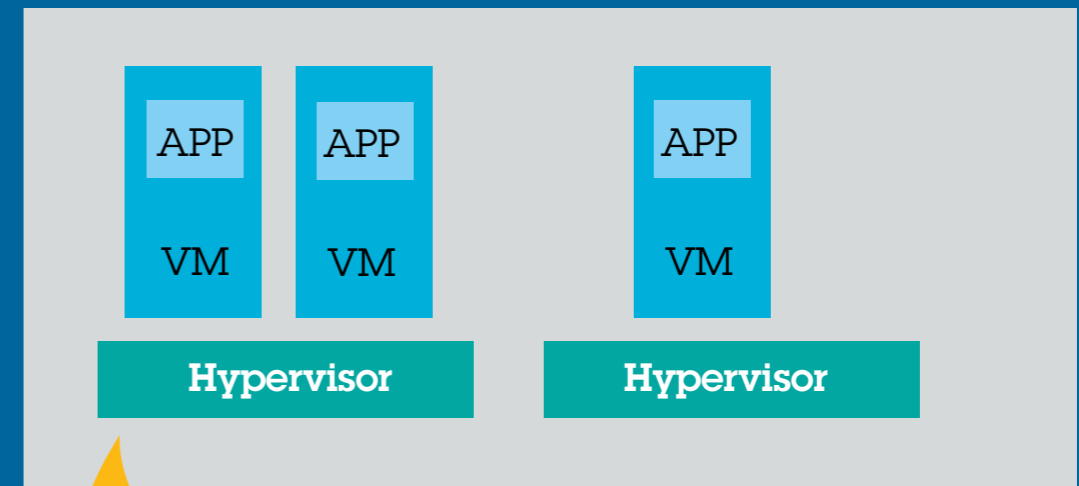
Tailor security to applications

Need: Provide distinct levels of security to each application

Solution: Leverage micro-segmentation capabilities with distributed virtual firewalls to supplement your conventional perimeter firewall for data center protection.

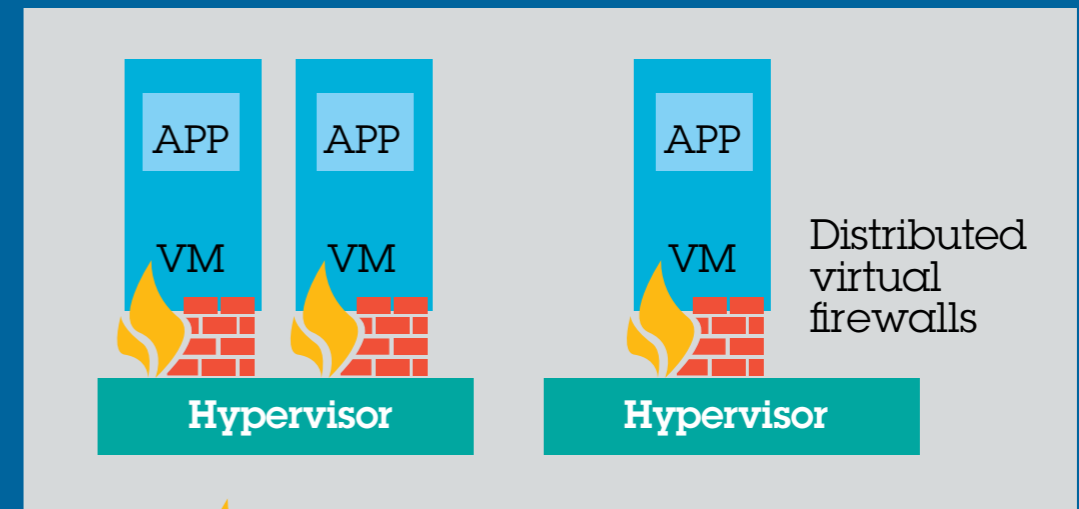


On-premises data center



Main data center firewall

On-premises data center



Distributed virtual firewalls



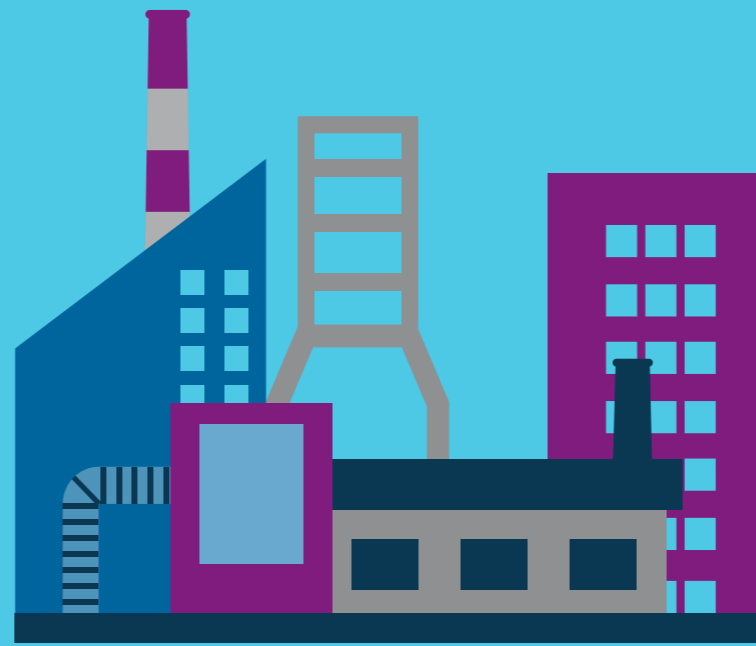
Perimeter firewall

Across industries, organizations are benefiting from SDN implementations



International banking

Distributed firewall capabilities help deploy a secure private cloud designed to speed application development and deliver financial products to market faster.



Electronics manufacturing

Network virtualization and distributed firewalls enable a simplified development and production environment that reduces developer cycle time and maintains separation of business units.



Media firm

SDN with OpenStack integration helps a global media firm accommodate rapid growth and increase agility with effective network orchestration for a cloud environment.

Steps to start integrating SDN capabilities into your existing infrastructure



Plan

- Develop a network strategy and architecture based on an SDN
- Identify issues, prioritize enhancements



Consolidate and virtualize

- Simplify and optimize the network architecture
- Design and deploy virtualized network services



Optimize

- Leverage analytics and automation to optimize performance

Learn more about software defined networking



Ready to learn more?

ibm.co/1MmqSEQ

SDN video:

Nothing Works without the Networking

youtu.be/WVtrT7pXp7E