Ewolucja sieci w Data Center

Czas na wirtualizację sieci za pomocą VMware NSX

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VMware Networking and Security
Focus on the App
The goals haven’t changed…

- Security of Applications and Data
- Speed of Delivery
- Application Availability

…But everything else has

- Changes to Infrastructure
  Virtualization | Convergence
- Changes in Threats and User Behavior
- Changes in Application Architectures
Complex Goals Tied to the Network…

- **Speed of App Delivery**: Error-prone, repetitive manual processes and scripts for physical networking infrastructure.
- **Security of the Application**: Inadequate internal security controls, dependent on static network topologies to define policy.
- **Availability of Applications**: Inability to move or access apps across domains because of inconsistencies in IP and security configurations.
Forced Compromises

Compromised Speed
- Error-prone manual configurations
- Provisioning / configuration delays
- Time to market delays

Compromised Security
- Threat response delays
- Significant security vulnerabilities
- Business and intellectual property risk

FIXED LIMITATIONS
Defined by infrastructure and resources

SPEED / FLEXIBILITY
Lines of Business stakeholders

IT CAPACITY

SECURITY / RISK
Networking and Security teams
Hardware Constraints

The network, still defined by hardware, limits a virtualized environment
Hardware Constraints

The network, still defined by hardware, limits a virtualized environment
Virtualizing the Network
Removing the final data center constraint

- Hypervisor
- vSwitch
- Firewalling
- Load Balancing
- Switching
- Routing
Virtualizing the Network
Removing the final data center constraint

- Topology Independence
- Network Virtualization Platform
- Pooled Data Center Capacity
Drive business value today without compromise
Network Virtualization
How is it being applied today

- **SECURITY**
  Architecting security as an inherent part of the data center infrastructure

- **AUTOMATION**
  Automating IT processes to deliver IT at the speed of business

- **APPLICATION CONTINUITY**
  Enabling applications and data to reside and be accessible anywhere
VMware NSX Security
Micro-segmentation | DMZ Anywhere | Secure User Environments

Alignment of Policy Controls
Security and networking policy that travels with the workload independent of physical network topology

Granular Policy Enforcement
Enabling least privilege security with policy enforced at every workload
Rapid and Repeatable Application Deployments
Automating Networking and Security for IT and Developers

VMware NSX Automation
IT Automating IT | Multi-tenant Infrastructure
Data Centers Anywhere
Enabling applications and data to exist between data centers for disaster recovery or pooling of data center resources
“I now have the ability to deploy networking and security at the speed it takes to deploy a VM.”

CIO
Customer Challenges
Customer business and technical concerns

- Lack of granular segmentation for security of virtual machines
- Complex access to shared services for new apps
- Manual and time consuming app deployment with inconsistent security policy
Solution Requirements
Customer demands for NSX

- **Automate shared services access**: Automate access to shared services on a per app basis without manual intervention.
- **Compliance and Auditing**: PCI compatibility for compliance and auditing.
- **Virtualization and mobility aware**: Compute virtualization-aware and deployable at the speed of a VM.
- **Works at scale across two sites**: Central management across two sites that can operate at scale.
- **Choice and Extensibility**: Service insertion with third party especially IPS for E-W.
Plan Execution
Immediate realization of business benefits

Critical Segmentation of workloads
Production | Non-production | PCI

Automated Access to Shared Services
- Security group and policy set for access to shared IT services
- Custom monitoring dashboards using NSX APIs (e.g. list all FW rules for a VM)

SDDC Automation
- NSX security policy model to simplify and automate
- Leveraged tagging to classify workloads into security groups
- Overlay networking
Next Projects
Leveraging current successes to align future goals

- Micro-segmentation
  - Production | Non-production | PCI
  - ✔

- Automated Access to Shared Services
  - ✔

- SDDC Automation
  - ✔

More 3rd Party Appliances Implementation

Remote Office Protection

New DC Design Strategies

Public Cloud Strategy
NSX Vision: Driving NSX Everywhere
Managing Security and Connectivity for many Heterogeneous End Points
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