Software Defined Networking- Presenter

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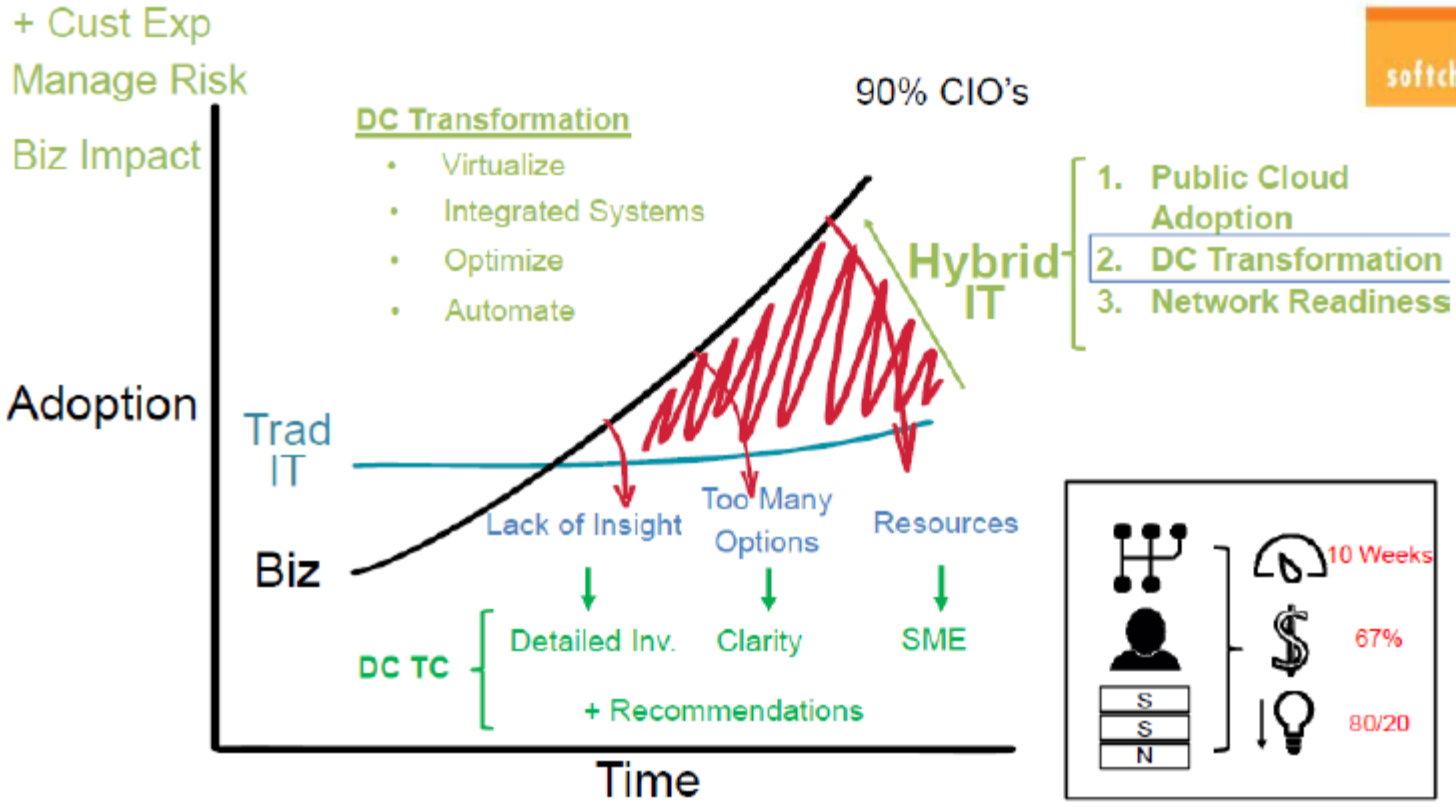
IT is changing.


Cloud isn’t the only path.

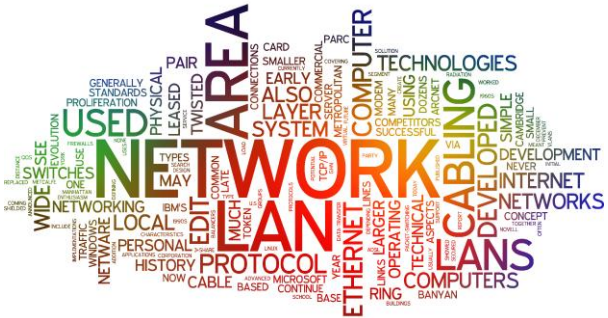
Welcome to Hybrid IT.

Softchoice: Industry POV



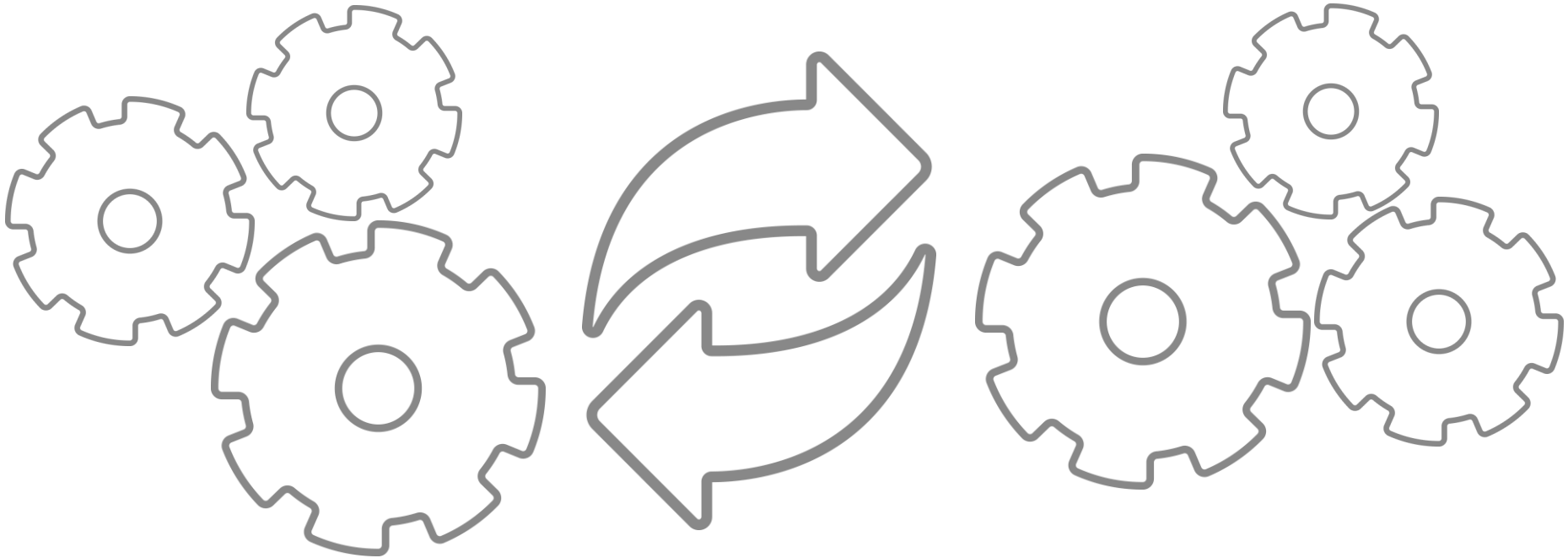

SERVICE
PUBLIC
SERVICES
CLOUDS
CLOUD
MODEL
INFRASTRUCTURE
COMPUTING
AVAILABLE
PRIVATE
INTERNET
STORAGE
ACCESS
RESOURCE
APPLICATIONS


SERVERS
SERVER
SOFTWARE
OPERATING
WEB
CLIENTS
COMPUTER
NETWORK
SERVICES
ONE
COMPUTERS
CLIENT
HARDWARE
SYSTEMS
INTERNET

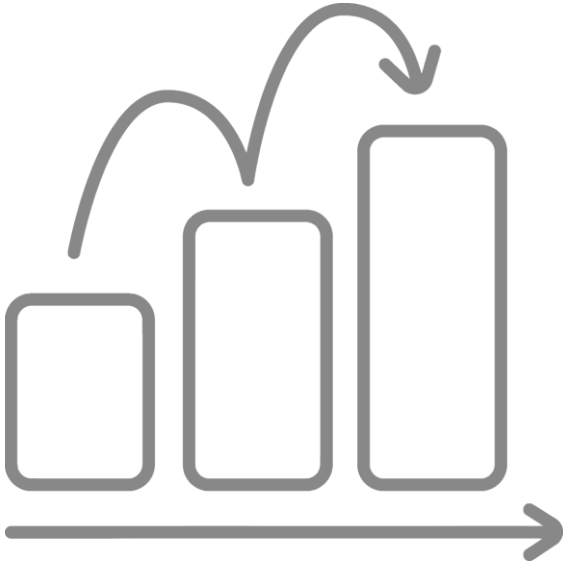

AREA
NETWORK
LAN
USED
CABLING
DEVELOPED
TECHNOLOGIES
COMPUTER
SYSTEM
LAYER
ALSO
EARLY
PROTOCOL
ETHERNET
LANS
COMPUTERS
INTERNET
NETWORKS
LOCAL
PERSONAL
HISTORY
SWITCHES
NETWORKING


COM3 - PuTTY
username shawn privilege 15 password 7 13171E0218040D3E7A
ip subnet-zero
!
!
no ip domain-lookup
ip dhcp excluded-address 192.168.5.1 192.168.5.99
!
ip dhcp pool DHCP5
network 192.168.5.0 255.255.255.0
dns-server 8.8.8.8 8.8.4.4
default-router 192.168.5.1
!
!
!
!
interface FastEthernet0/0
ip address dhcp
ip access-group WAN in
ip nat outside
duplex auto
speed auto
no cdp enable
!
interface Serial0/0
no ip address
shutdown
no fair-queue
!
interface FastEthernet0/1
ip address 192.168.5.1 255.255.255.0
ip nat inside
duplex auto
speed auto
!
--More--

1. Scalability



2. Complexity



3. Agility

4. Security

CIO
FROM IDG

How to get fired in 2017: Have a security breach

There are many reasons why IT pros can be fired, but a majority of them are related to security

Maria Korolov (CSO (US))
19 January, 2017 02:00

There are many reasons why IT professionals can be fired, but six out of the top nine are related to security, said a survey released this morning.

For example, having a tech investment that leads to a security breach was considered a fireable offense by 39 percent of organizations, according to Osterman Research, which conducted the survey.

A data breach that becomes public was a fireable offense for 38 percent of companies.

Other fireable offenses included failing to modernize a security program, data breaches with unknown causes, data breaches that do not become public, and the failure of a security product or program investment.

Failing to meet regulatory compliance and getting a large fine or penalty, was the top offense, with 68 percent of organizations considering it reason for dismissal.

We Need To Bridge The Gap

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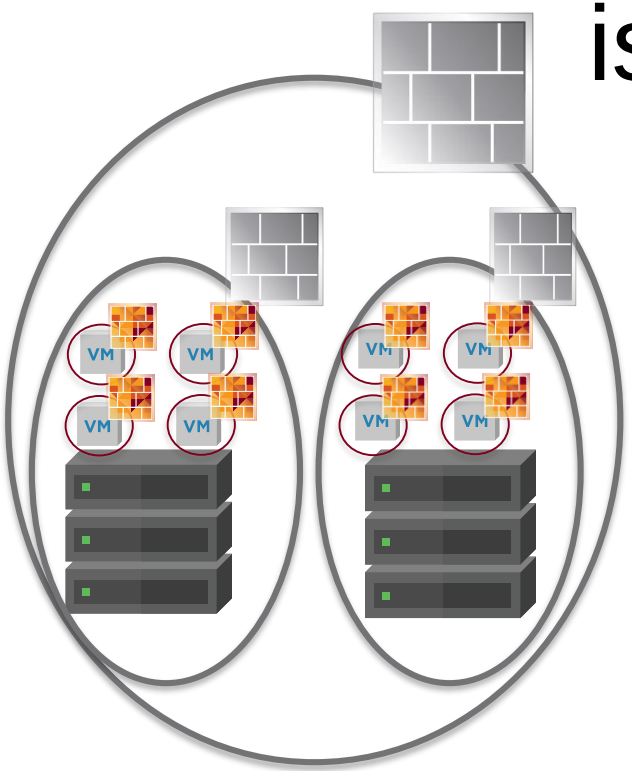
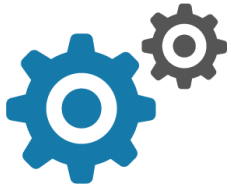
Zero-Trust and Micro-segmentation is Required!



- Institute a **Zero-Trust** model with **micro-segmentation** – a firewall for every single VM
- Limit access based on **identity authentication**
- Provide further security checks – antivirus, intrusion prevention, data loss prevention – with **third party service insertions**


The future of networking is in software.



Automation

Network Virtualization

Centralized
Management and Control

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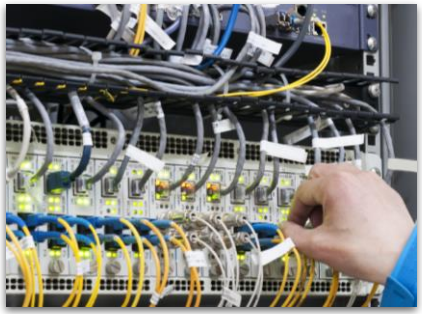
is to



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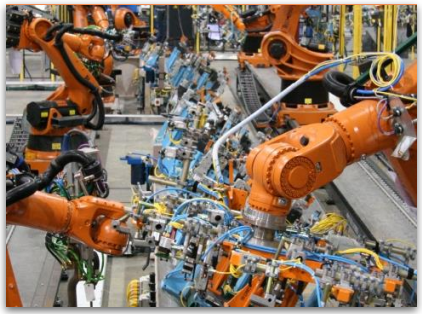
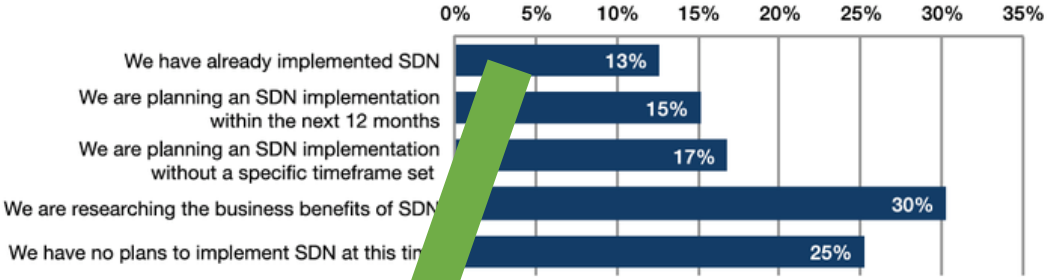
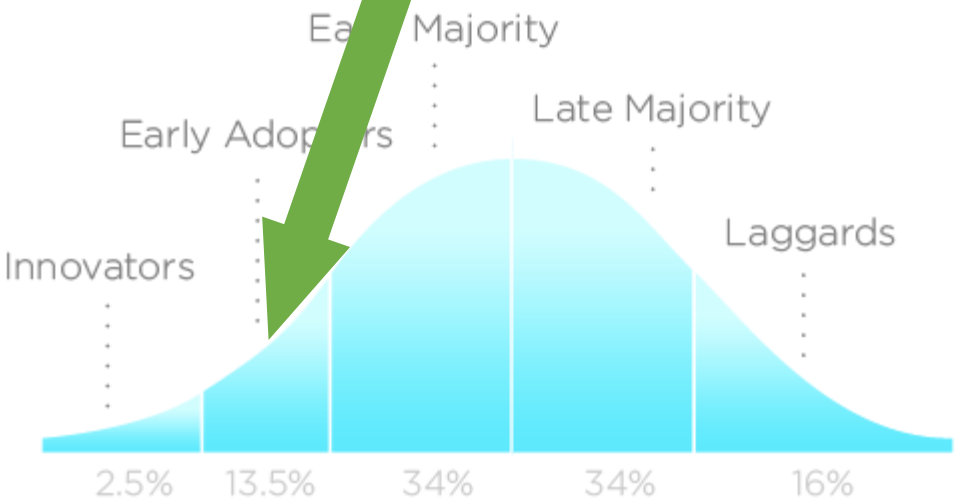


is to

COMPANY PLANS FOR DEPLOYING SDN



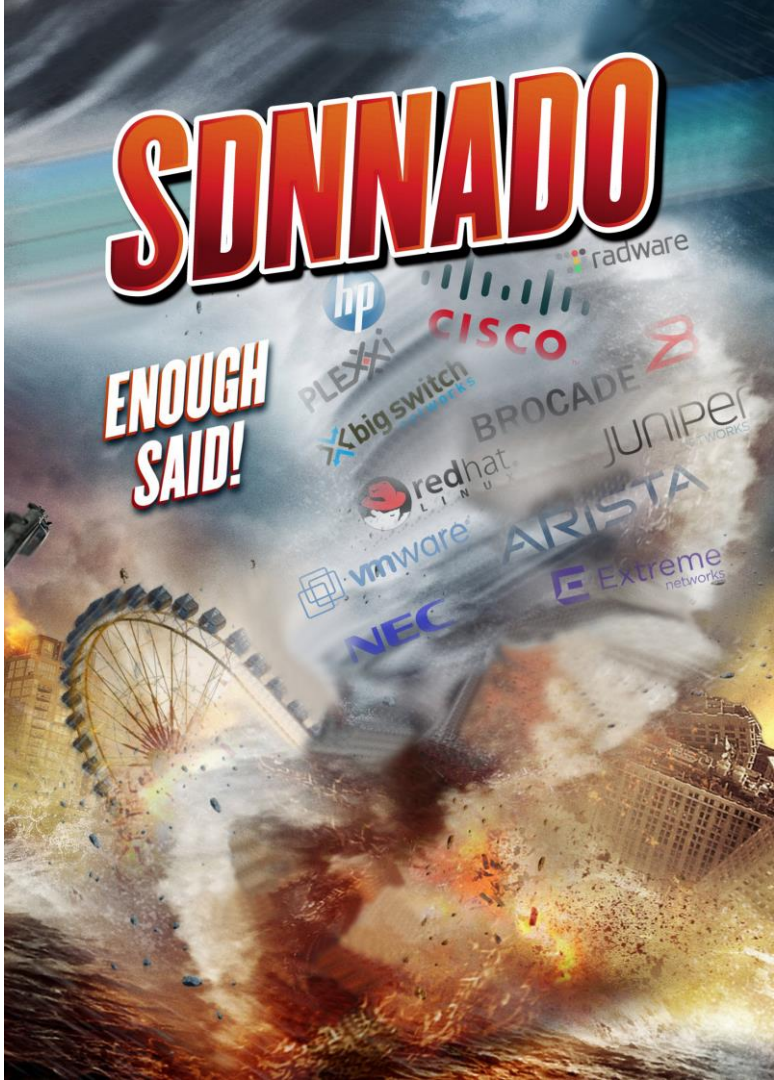


INNOVATION ADOPTION LIFECYCLE

physical network infra.
virtualization/control software
SDN applications
professional services

SDN Market

$12.5 billion in 2020

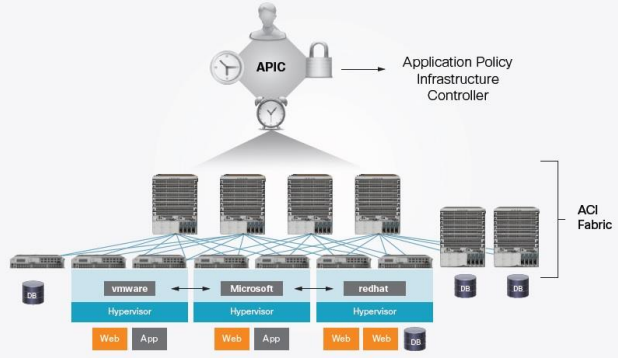


Who are the leaders in the Data Center Networking market?

Leading SDN Solutions…

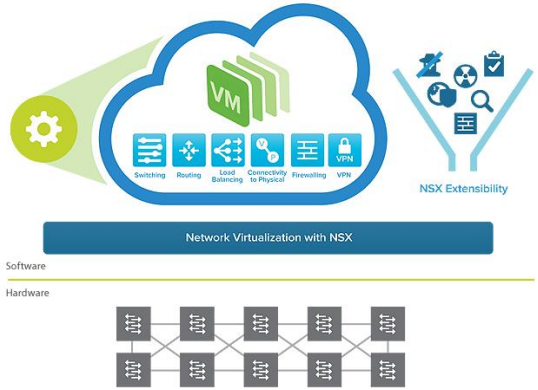
CISCO

ACI



VS

vmware NSX



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Architecture

ACI

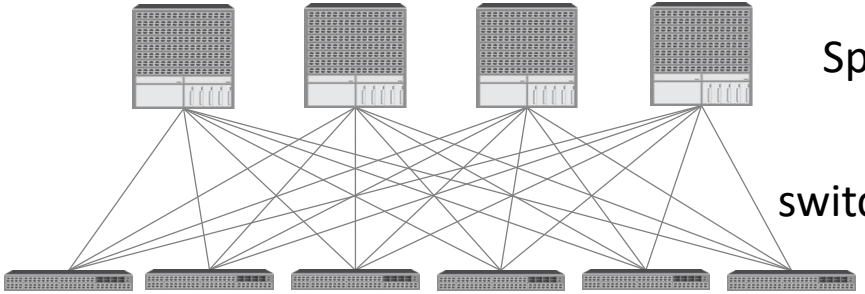
Management Plane

Application Policy Infrastructure Controller (APIC)

Control Plane

Independent Control Planes per Switch

Data Plane



Spines

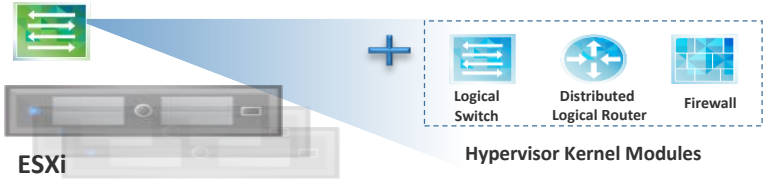
Leaf switches

NSX

NSX Manager

NSX Controller

Distributed Services



NSX Edge

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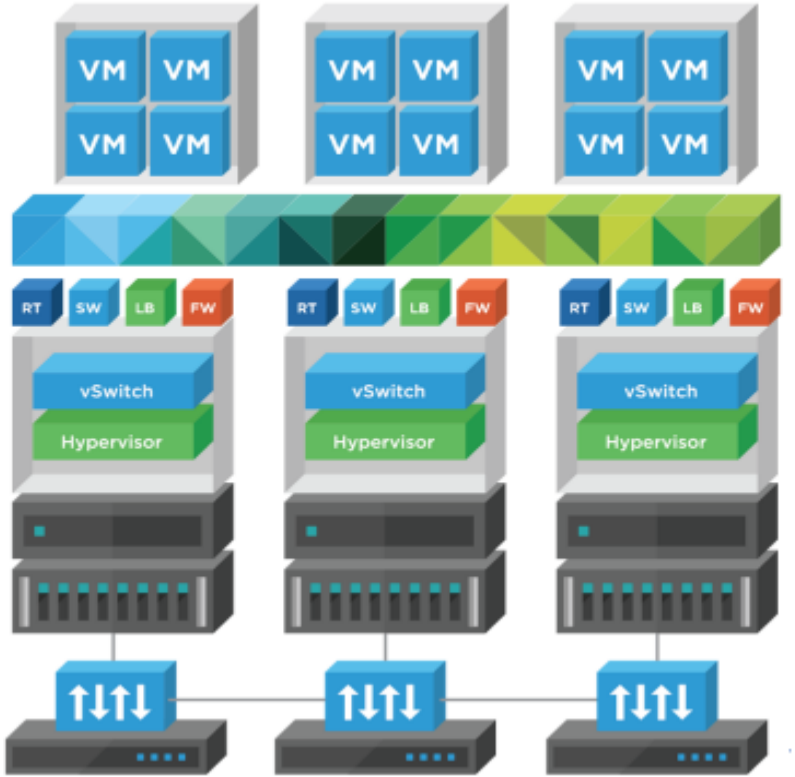
Software Overlay- NSX



Distributed Stateful Firewalling

Distributed stateful firewalling, embedded in the hypervisor kernel for up to 20 Gbps of firewall capacity per hypervisor host.

Dynamic Security Policy

Security policy that is attached directly to the workload and "travels" with the workload, independent of the underlying network topology, enabling security to adapt to changes.

Cloud Management

Native integration with VMware vRealize® Automation™ and OpenStack, enabling advanced automation capabilities.

3rd Party Integration

Enhanced security and advanced networking services through an ecosystem of leading third-party vendors.

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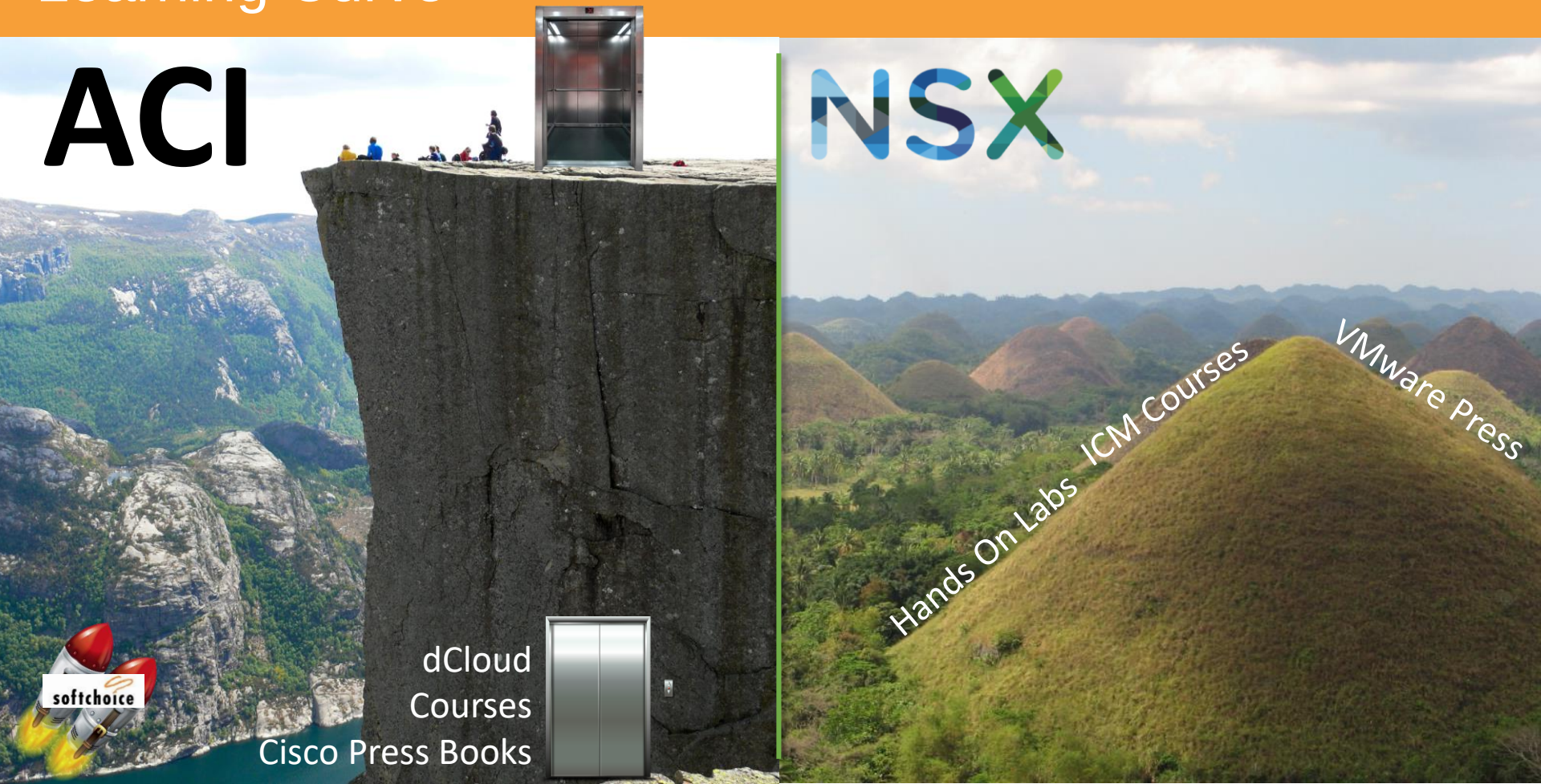
Learning Curve



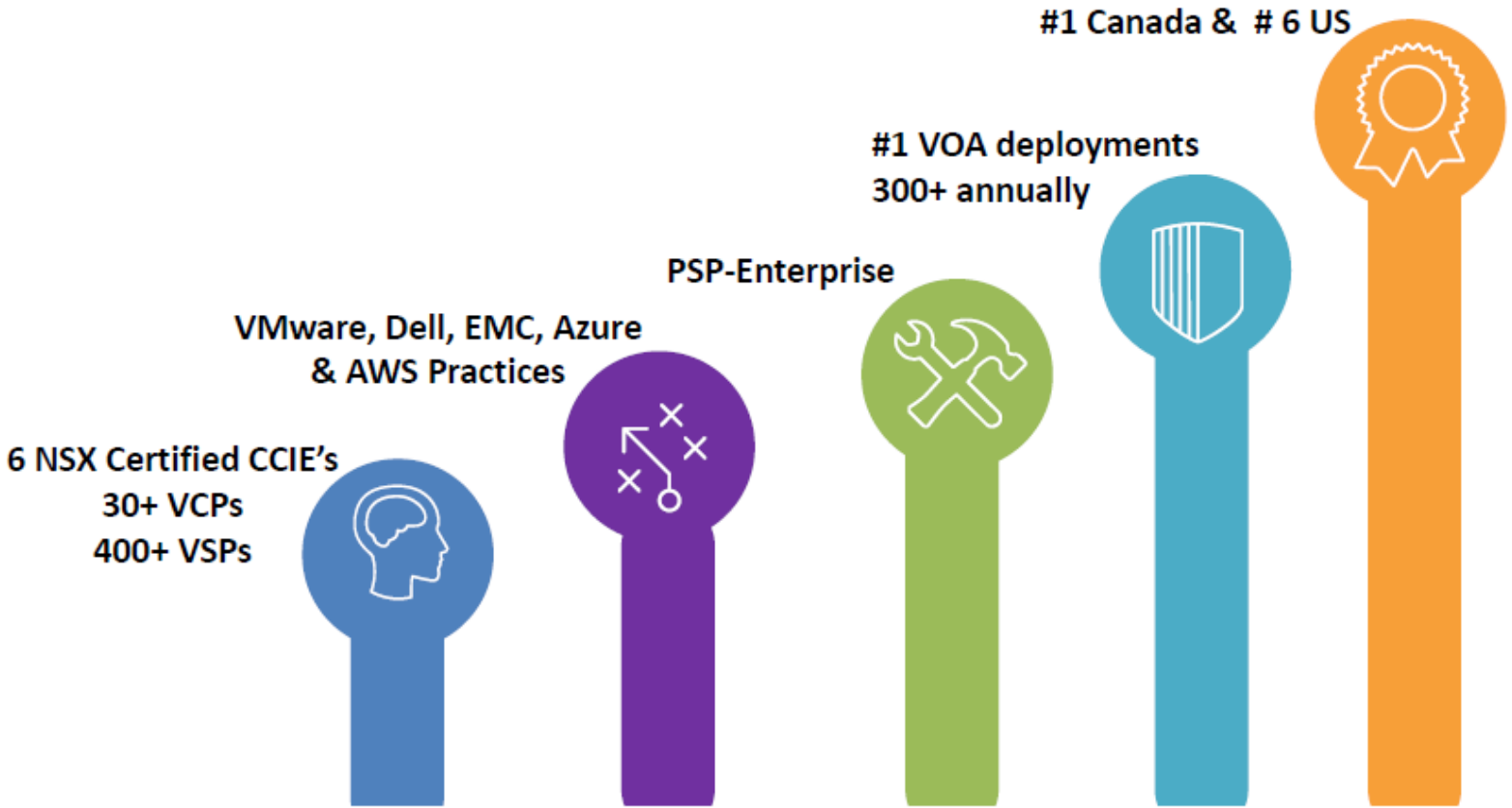

SDN

SDN Pitfalls and How to Avoid Them

1. Application traffic flows
2. Process workflow
3. Responsibility silos
4. Network device lifecycle management
5. Cost to scale
6. Ascend the learning curve
7. Compliance impact

Next Steps

Softchoice: VMWare Status



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Softchoice: Datacenter Techchecks

LICENSING

VMware
Licensing
TechCheck
(IBR)

COMPUTE

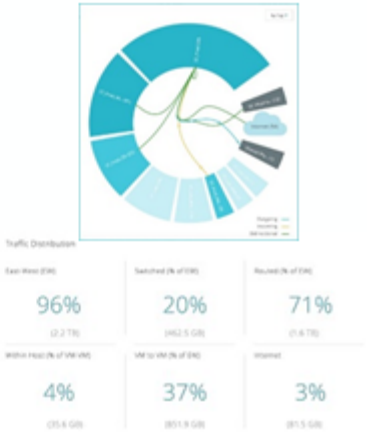
VMware vSphere
Optimization
Assessment
(VOA)

STORAGE

VMware
Storage
Assessment

NETWORKING

VMware
Networking
Assessment



Softchoice: Professional Services

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