AWS re:Invent

DEM49-S

Network orchestration for your cloud environment

Tony Savoy

Offering Management, Infrastructure Services

IBM

AWS re:Invent

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aws

Where are we?



Hybrid Networks



IBM’s Approach



Automation / Orchestration



NICC



Case Studies



Why IBM

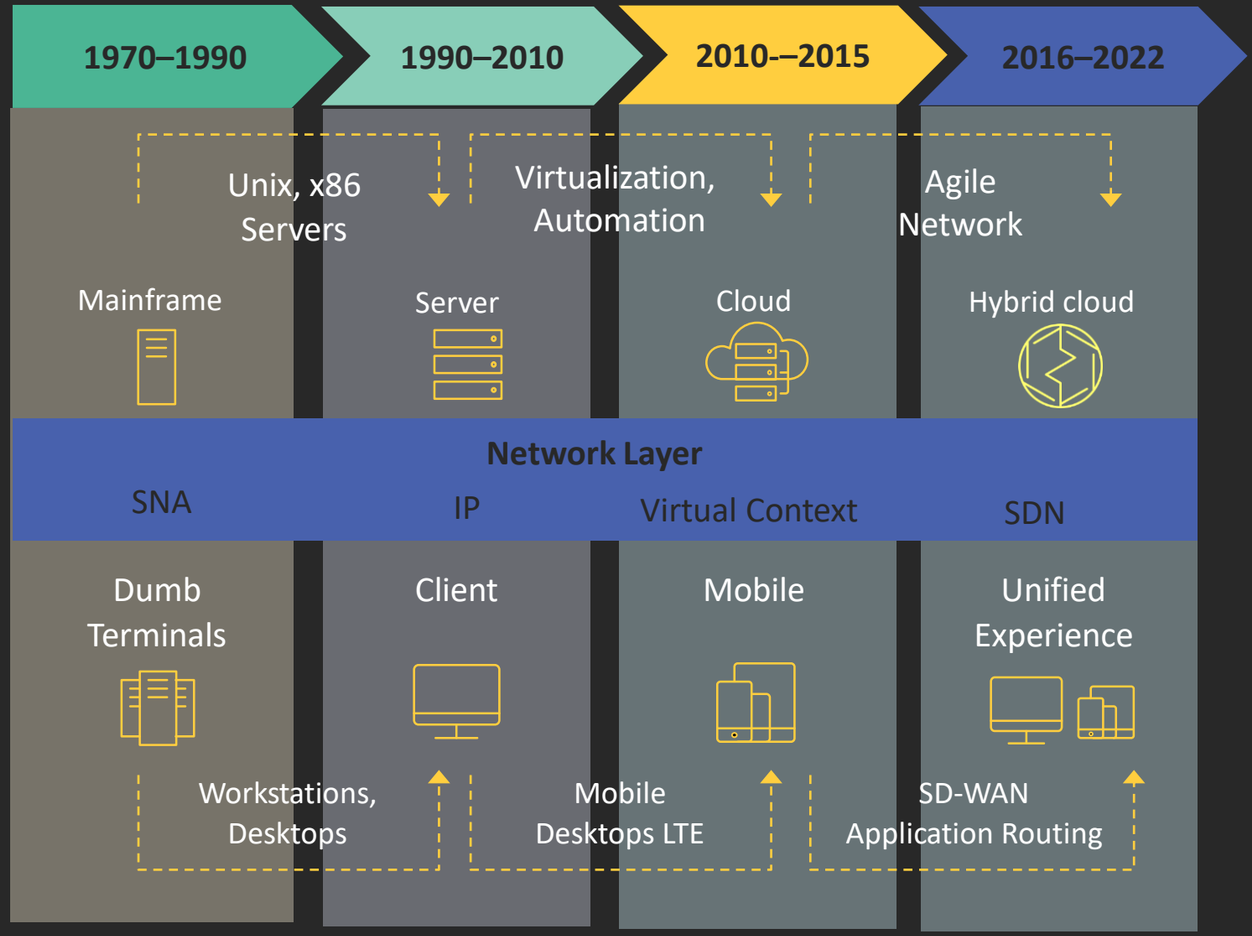
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We are at an inflection point with networking

Applications are increasingly distributed, not just in on-premises data centers, but increasingly in the SaaS and IaaS public cloud

63% of organization's networks are in the best effort or manual stages of automation

93% of global IT decision-makers report that at least once a month, their organizations experience cloud-related network issues caused by legacy infrastructure



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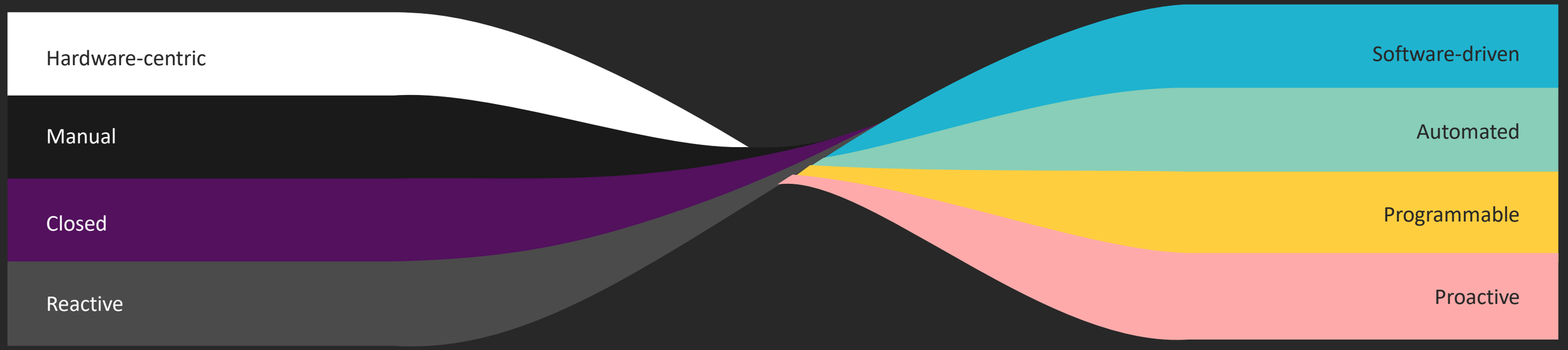
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Network Disruption

Networks Are Cloudified

Traditional Networks
Optimize current investment to enable transformation across the network

Cloud-Enabled Networks
The network leveraged as an enabler for transformation rather than an inhibitor



Network-driven **Application-driven**

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IBM Network as a Service

Five Guiding Principles

Consultative Partner

Leveraging our SDN consulting practice, we take a vendor-neutral position and focus on providing the best solution for moving to a virtualized and cloud-based network while leveraging IBM's buying power and relationships.

Risk Mitigation

Leverage IBM's global capabilities, experience, and methodologies to deliver the solutions in a standard repeatable fashion. Allow customers to partner with less established OEMs that are backed by IBM.

Integrated Partnership

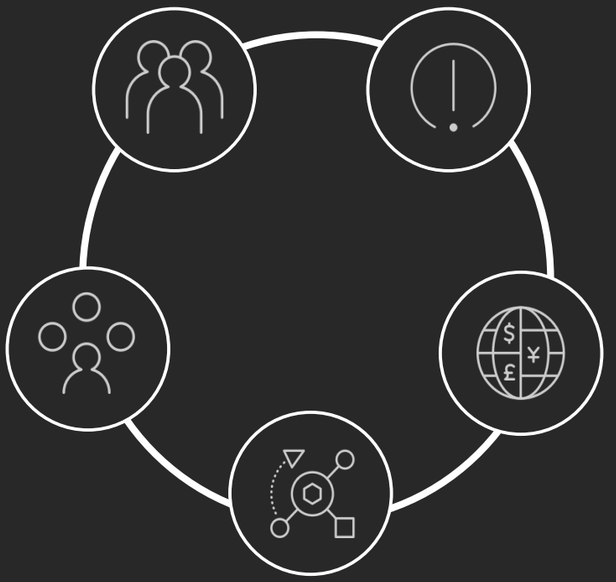
Work with customer's design-level teams to establish a mutually beneficial collaboration by instituting a single DEVOPs team, which includes both the customer and IBM.
One team!

Incentive Alignment

Develop a pricing, credit, KPI, and SLA framework that allows customers to financially consume IBM services based on easily understood business metrics at desired support levels, which also incents both parties to drive innovation.

Cloud Network Intelligent Control Center

Provide customers a vendor-agonistic cloud platform with robust automation and associated staff to drive network automation solution design and development throughout partnership.



Network Is Core to a Journey to the Cloud Transformation

The blending of network service and function by transforming traditional models with automated, cognitive platforms and services

IBM Network Services

Consult, Transform, Manage



Local Area Network

Software-Defined LAN and Wi-Fi



Wide Area Network

Software-Defined WAN

Data Center, Cloud

Software-Defined Data Center and Network Virtualization

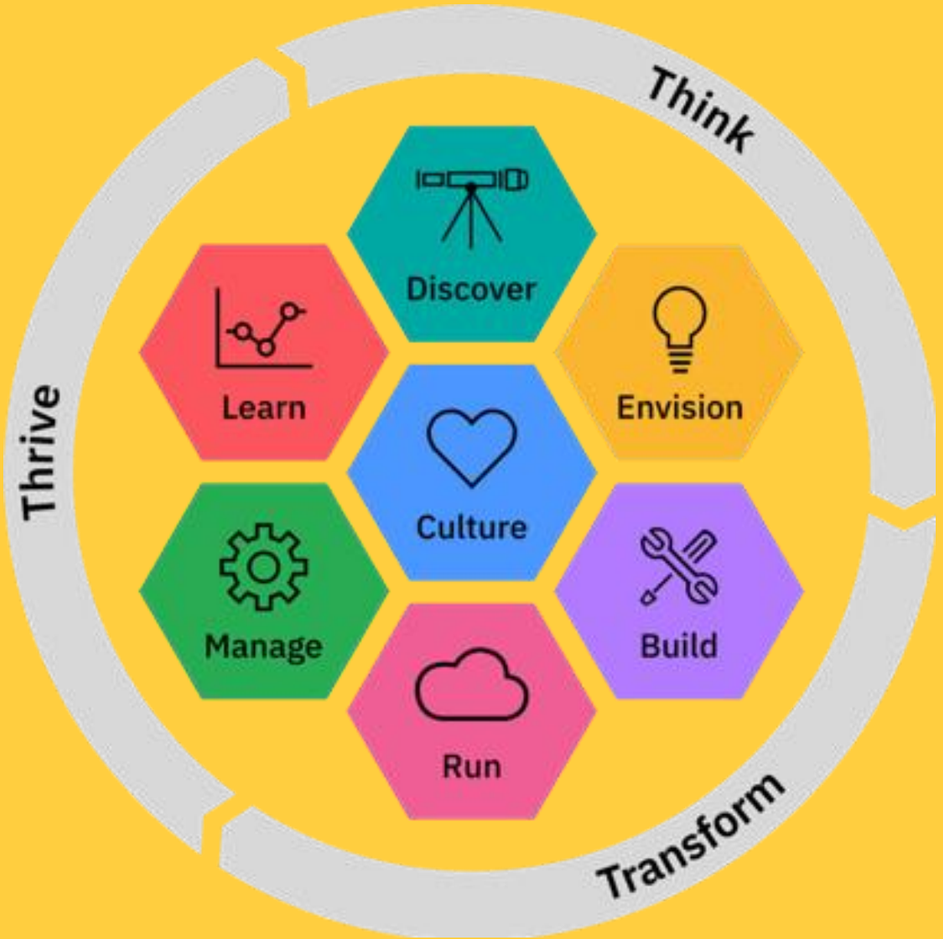
Network Innovation

Fully dedicated network garages for network innovation

The IBM Garage is IBM’s center for high-impact, client-centric innovation

A focus on innovative network solutions, the IBM Network Garage has dedicated people and purpose-built spaces ready to collaborate with you on your transformation journey

IBM Garage Method



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To fully leverage the benefits of a virtualized network, there must be a network orchestration and automation strategy. Together, network virtualization and network orchestration and automation will:



Prevent vendor lock-in on integrated proprietary hardware-based platforms



Allow for self-service functions for development teams, abstracting network integration complexity from application deployments

Reduce time to market by orchestrating and automating integration complexities across the hybrid estate



Improve quality through intelligent and aware operations like self-healing and scaling

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IBM Cloud Network Intelligent Control Center

Intelligence built into network design, transformation, and management, and delivered as a service



An intuitive visual **design** system allows engineers to build out and design the network elements and service chains



Enables network **transformation** by seamlessly integrating virtual network functions

Holistic **management** through intelligent operations, self-healing, and performance management

Intent-Based Orchestration

Across Multi-Vendor Virtual Network Functions



Cisco



Juniper



PaloAlto



F5



Others

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Case Study

Global Beverage Company

New CIO had a desire to address areas of inefficiency and concern, including explosive data growth, multi-vendor management, carrier contract concerns, cost reduction, and improved reliability across its global enterprise



DRIVING BUSINESS VALUE THORUGH AUTOMATION

Transformation underpinned by CNICC takes the complexity out of transforming, implementing, and managing complex network architectures

MODERNIZE WAN AND LAN

Utilizing virtualized network function and orchestration, IBM rapidly drove transformation of the WAN and LAN across 90 countries and 245 locations

IMROVED PERFORMANCE AND AVAILABILITY

Deploying software-defined WAN (SD-WAN) technology allows IBM to deploy multiple transport types to lower cost and increase bandwidth and availability through intelligent performance insights

CONSUMPTION-BASED MODEL

Network as a service solution based on sites and number of employees allows for flexibility and improved cost management

FULL-SUPPORT MODEL

Covering architectural design, transformation, and management, including device monitoring and maintenance

CONSOLIDATED OPERATIONAL MODEL

By leveraging IBM’s global Network Operations Center (NOC)

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Why IBM

Our skills, expertise, and know-how set us apart

50%

faster network equipment deployment

8%

lower IT infrastructure costs

20%

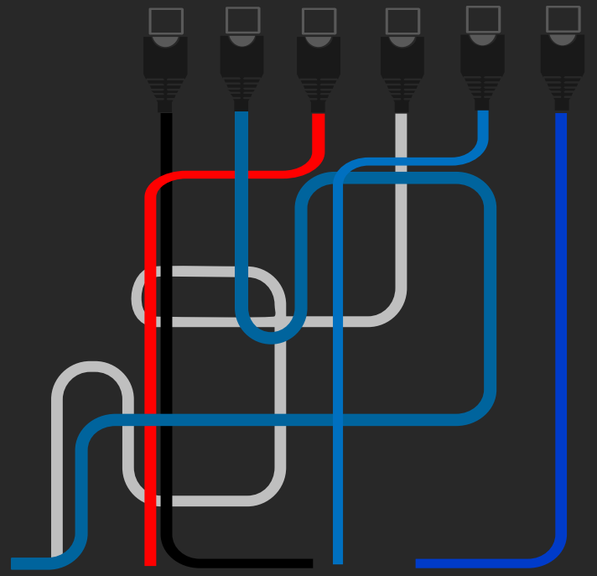
faster application deployment

17%

more efficient IT staff network operations

65%

less network-related unplanned downtime



Thank you!

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