



# Industry Perspective

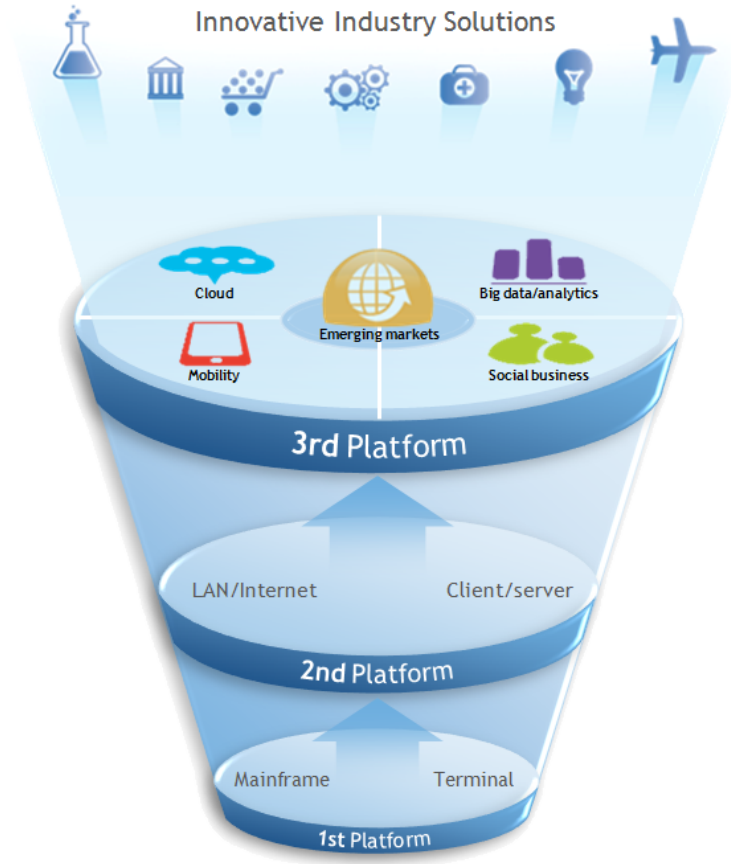
Brad Casemore

Research Director, Datacenter Networks, IDC



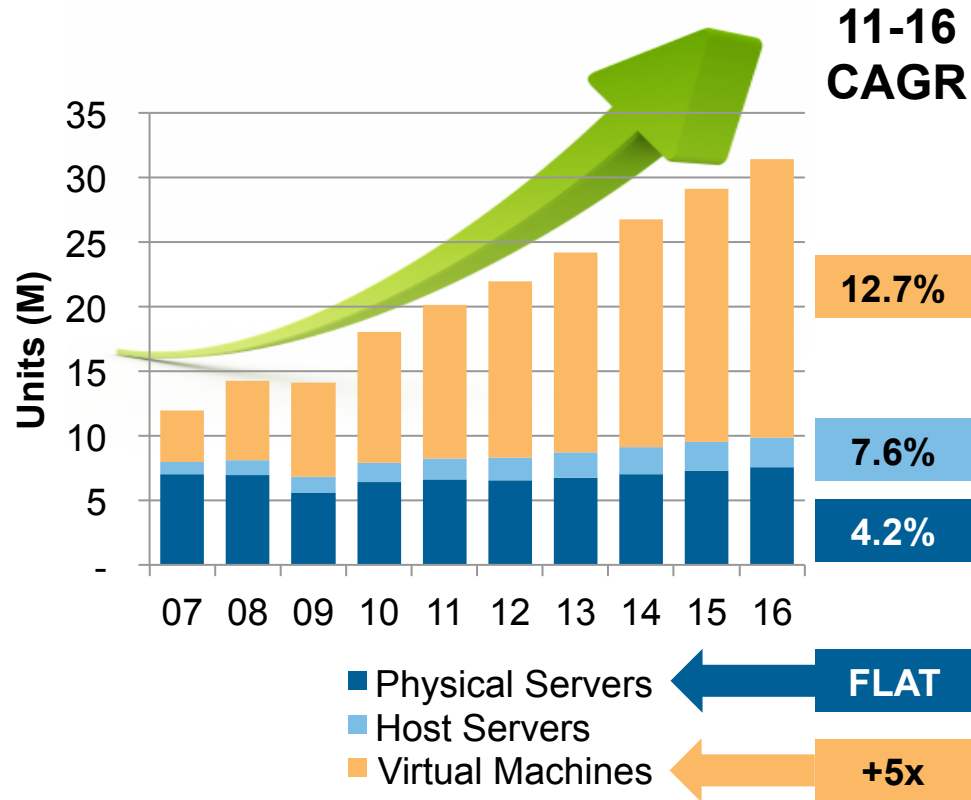
# Enterprise IT Rapidly Transforming

- New Enterprise IT Platform Emerging
  - Virtualization
  - Cloud
  - Mobility
  - Big Data Analytics
- Continuous delivery and new app architectures accelerate rate and pace of change
- Number and diversity of devices proliferating
- Datacenter and computing architectures also change dramatically



# Exploding Application Portfolios

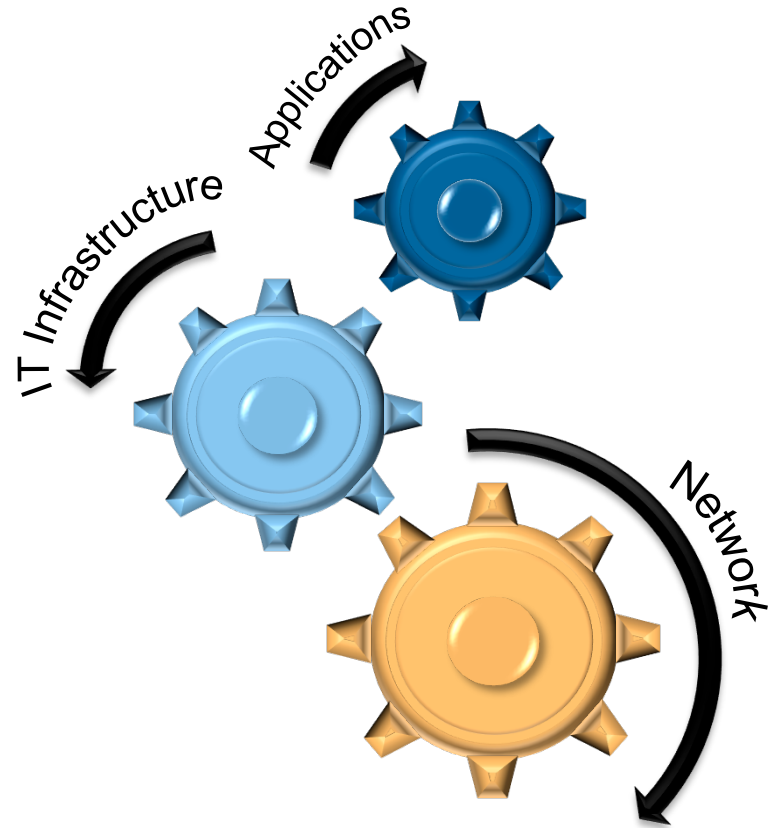
- Virtual machines become 'nearly free' and explode
- Smart connected device units will double to 2B by 2016
- IDC projects there will be 30B connected devices in 2020
- 5.2 TB of data generation/person drives real time analytics
- Immersive media-intensive social media
- Adaptive web/cloud sourcing



# The Datacenter Network Challenge:

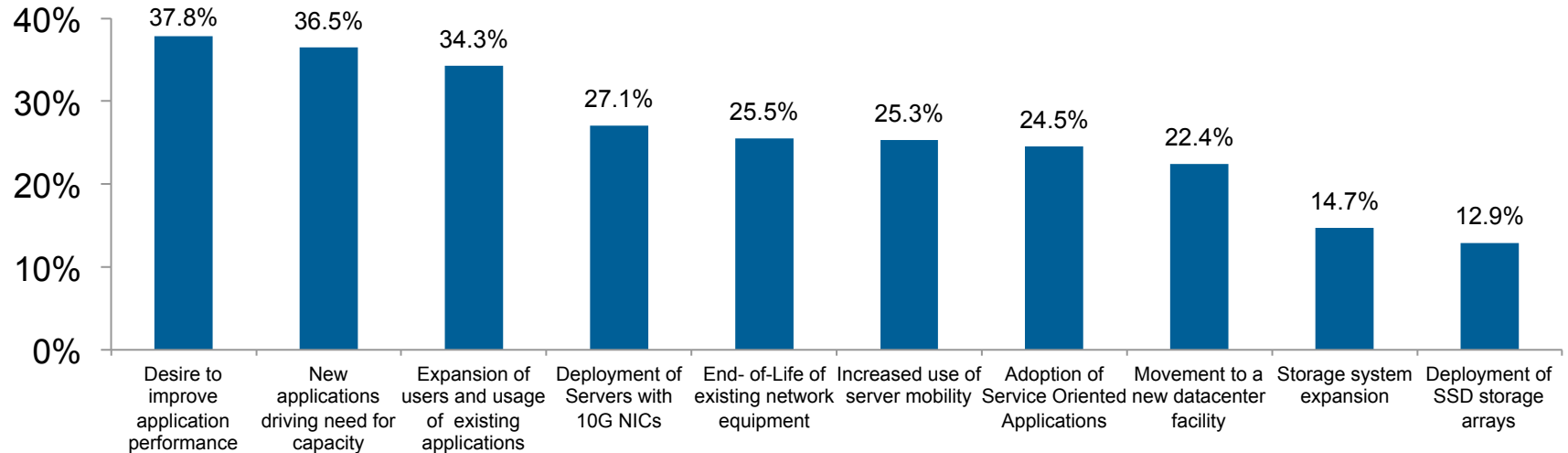
Not Optimized for Today's Demands

- New traffic patterns
  - Federated applications
  - East-West flows
  - Virtual machine mobility
  - Multitenancy, isolation
- Datacenter Network limitations
  - Static, tiered
  - Manually configured (CLI)
  - Redundant costs
  - Ongoing management complexity
  - Limited visibility into business applications



# Applications Drive Network Refresh, Change or Expansion in the Data Center

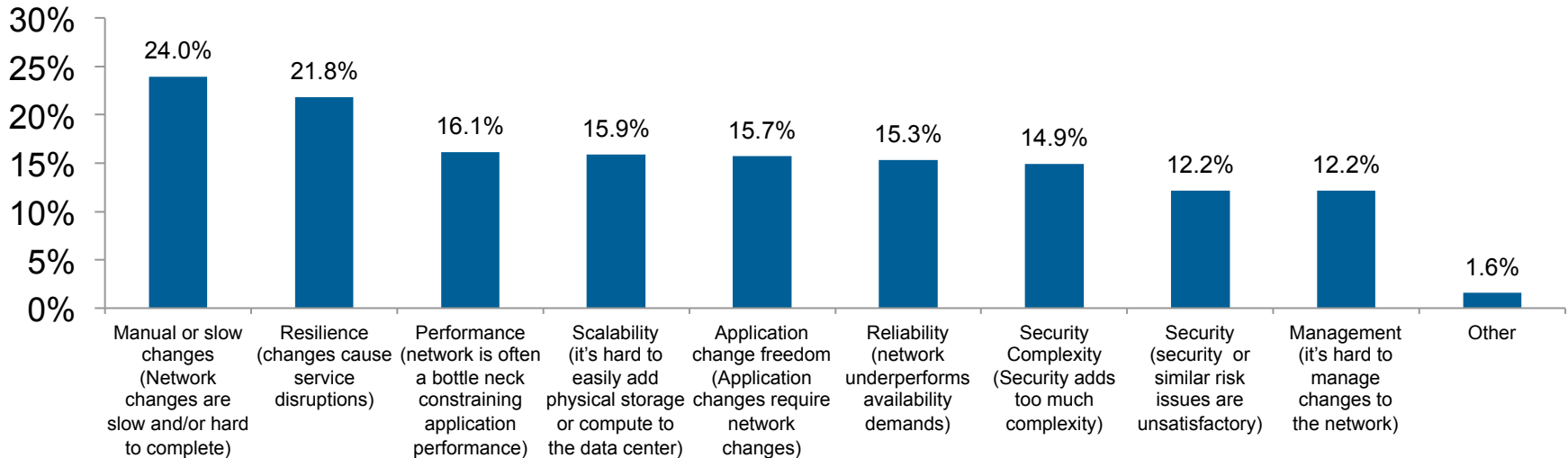
*Question: In 2013, if you had to bet \$100 on what will drive network refresh, change, or expansion in your datacenter, on which of the following would you place that bet? (check all that apply)*



- More than one-third of respondents noted that application performance, capacity and usage drive change in the network

# The Network is Not Well Suited to Making Changes

Question: What does your network not do well today?



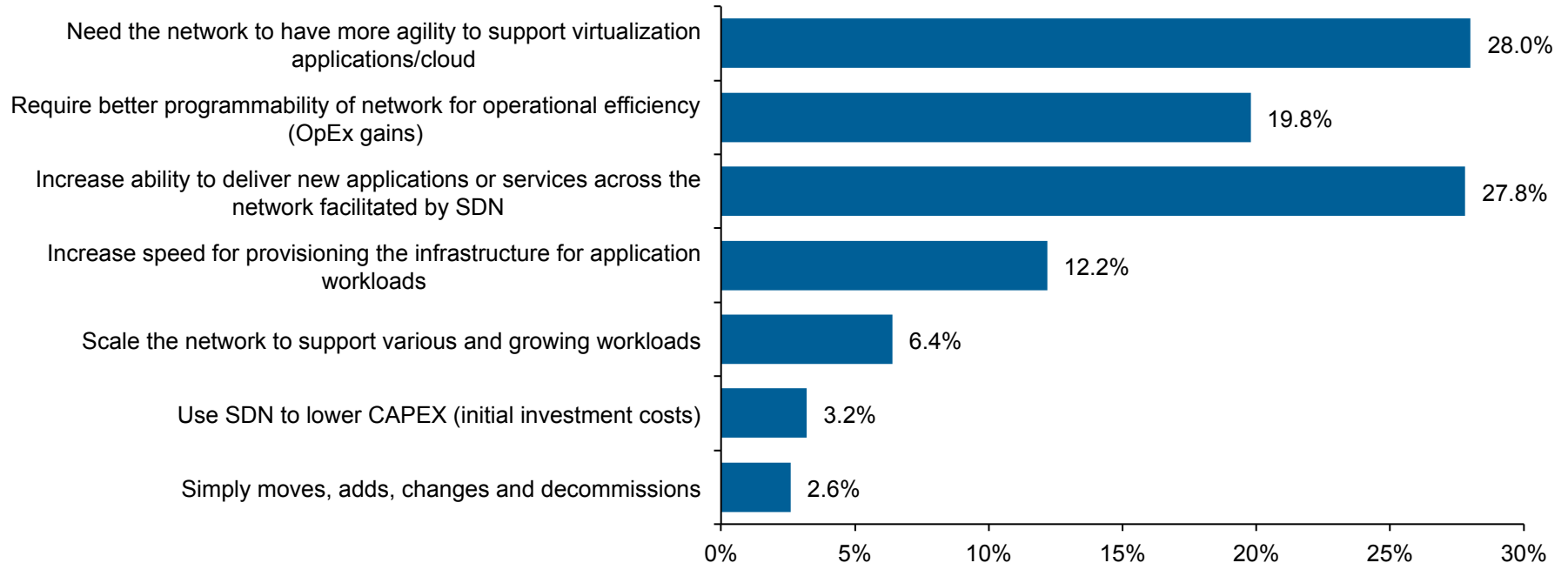
- More than 20% of respondents noted that their network is not well suited for making changes and loses resiliency when doing so

# Rise of Software-Defined Networking

- Software Defined Networking (SDN) is emerging as a new architectural approach to networking in the cloud era
- Decouples network control plane from data plane, establishes clear abstractions for programmability
- Integrates well with major cloud-management platforms
- Can drive OPEX savings in large data centers through automated network provisioning, configuration, management
- Potential to reduce CAPEX expenditures by allowing for purchase of industry-standard hardware (x86 for NFV, switches)
- Makes network more agile, flexible, easier to program and virtualize

# What's Driving Today's SDN Adoption?

Question: Which of the following factors is the primary motivation for considering or implementing SDN?



N=500

Base=All Respondents

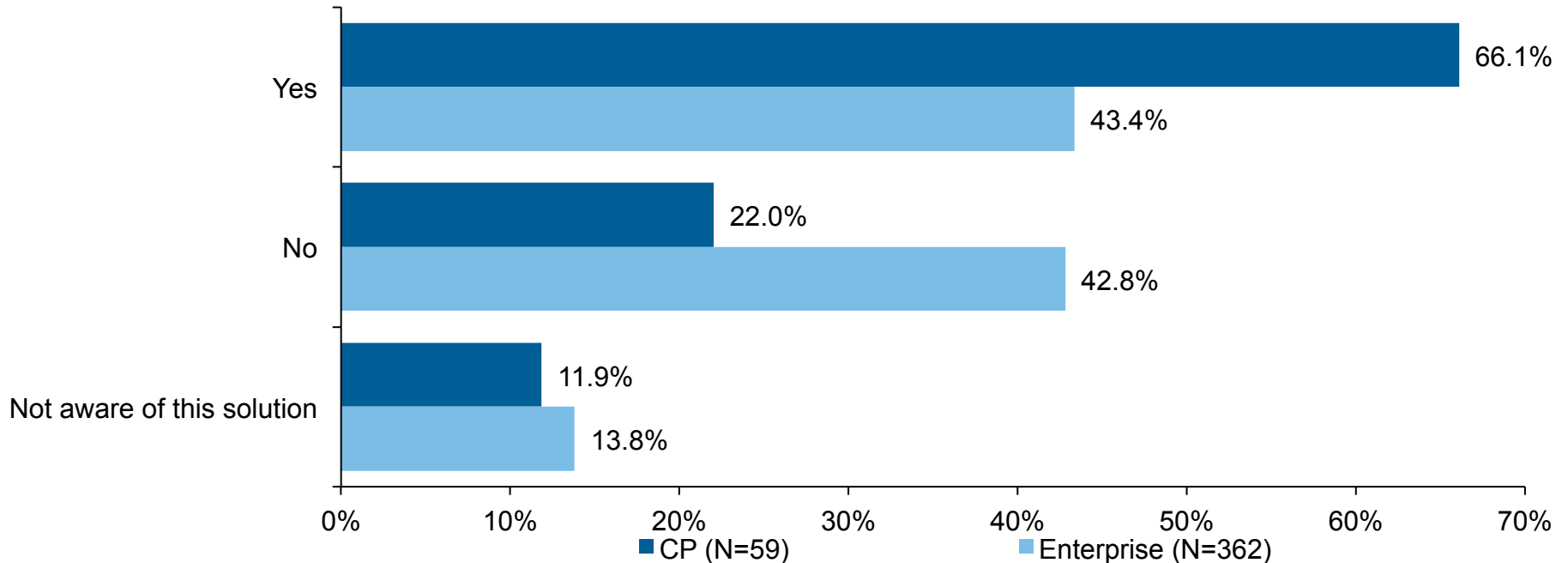
Note: Managed by IDC's Quantitative Research Group; Data Not Weighted; Use caution when interpreting small sample sizes.

Source: SDN Survey, IDC, April, 2014



# Early Interest in Open Switch OS

Question: As part of your organization's network architecture, have you considered a hardware agnostic 'open' network operating system, such as one from Cumulus, Pica8 or Big Switch?



# Thank You

