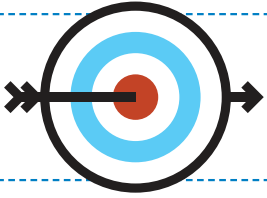# NETWORKWORLD

FROM IDG

DIGITAL ■ EVENTS ■ STRATEGIC MARKETING SERVICES

2017 State of the Network Study
Technology Adoption Trends & Their Influence on the Network Role

Purpose, Methodology and Respondent Profile

SURVEY GOALS
- To pinpoint where IT executives and professionals are with their initiatives within existing and emerging network technologies.
- To help technology marketers inform their product development, marketing, and messaging strategies for 2017.
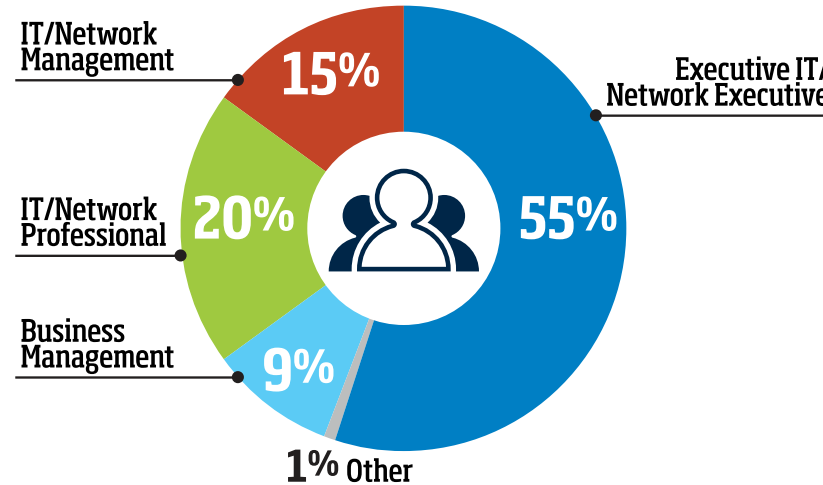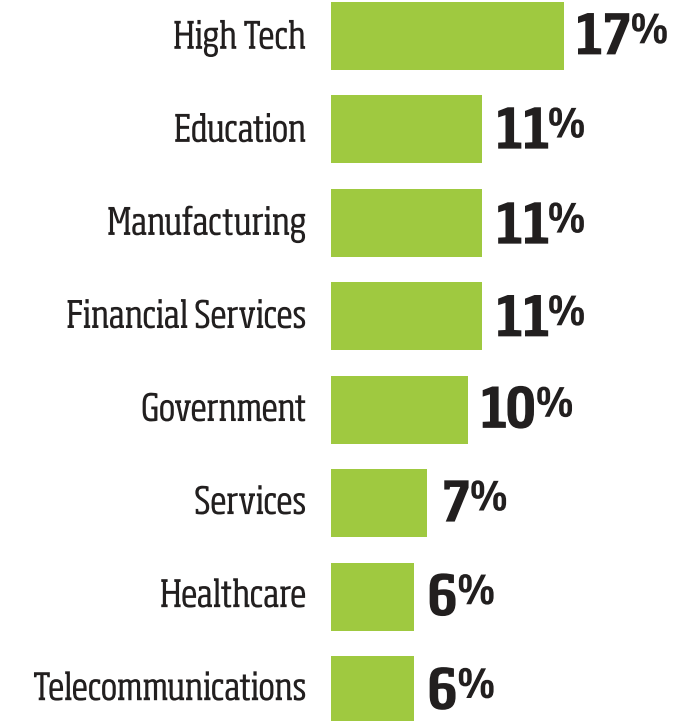
TOTAL RESPONDENTS
294

AUDIENCE BASE
Network World audience

COLLECTION
Online questionnaire

NUMBER OF QUESTIONS
37 (w/demographic questions)

IT LEADERSHIP
All survey respondents are involved in the IT sphere and 78% have primary responsibility for networking at their organization.

JOB TITLE BREAKDOWN

- IT/Network Management 15%
- Executive IT/ Network Executive 55%
- IT/Network Professional 20%
- Business Management 9%
- Other 1%

AVERAGE COMPANY SIZE
13,386 Employees

AVERAGE ANNUAL IT BUDGET
$125 Million

TOP REPRESENTED INDUSTRIES

- High Tech **17%**
- Education **11%**
- Manufacturing **11%**
- Financial Services **11%**
- Government **10%**
- Services **7%**
- Healthcare **6%**
- Telecommunications **6%**

Source: 2017 State of the Network Study, Network World

NETWORKWORLD FROM IDG

Digital Disruption
& The Network

Network IT Investments Supporting Digital Disruption

NETWORKWORLD
FROM IDG

What is driving digital disruption: 3rd platform and beyond
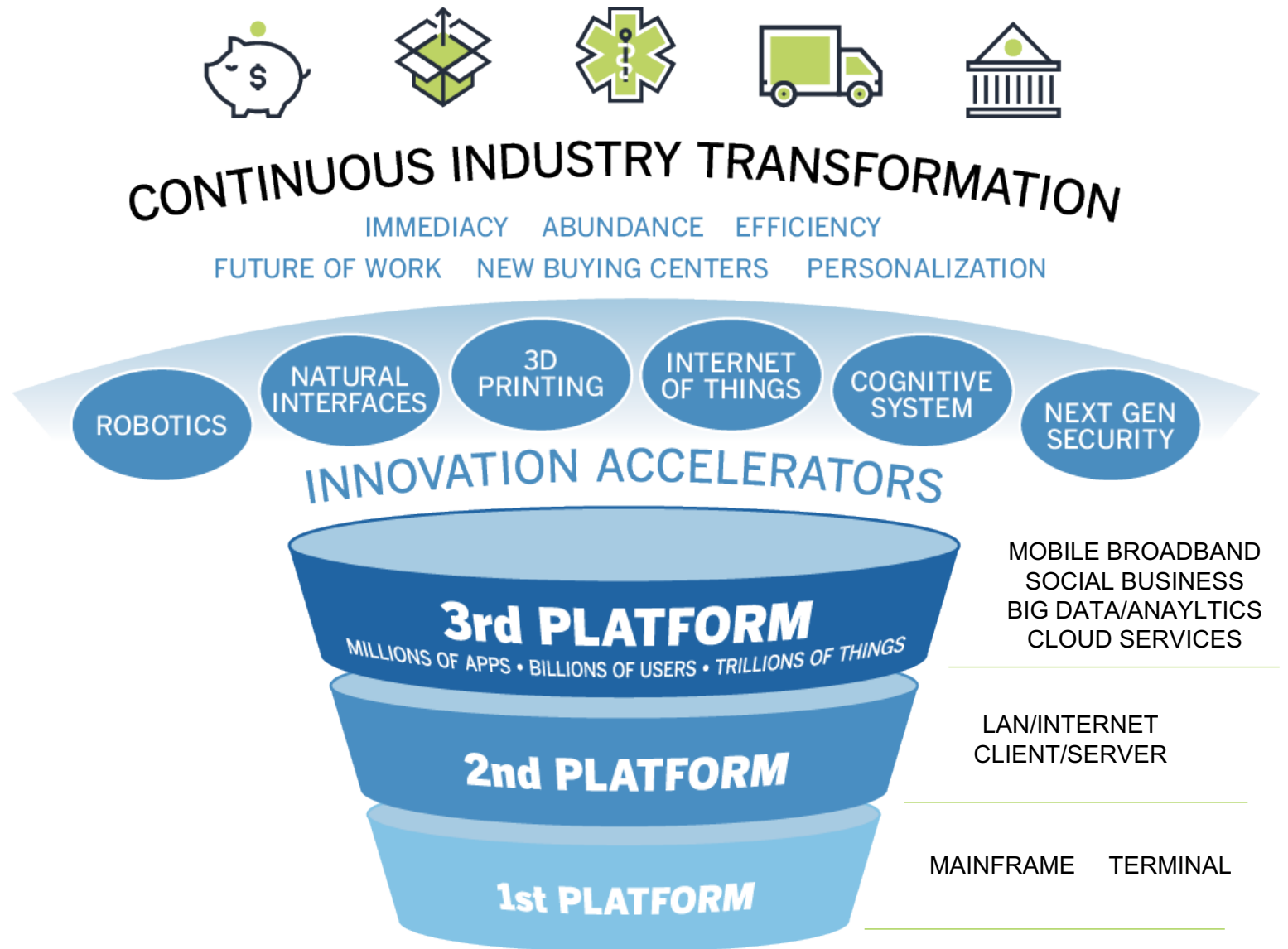
What's Happening with the Network Team?

78% agree that the network team is **becoming more important** to IT's mission.

87% agree that the role of the network professional is **becoming more challenging**.

70% say the network management team is **becoming more involved in shaping IT strategy**.

82% say the network team is **involved in security initiatives to a greater degree** than in the past.

Q: Please rate your level of agreement with the following statements.
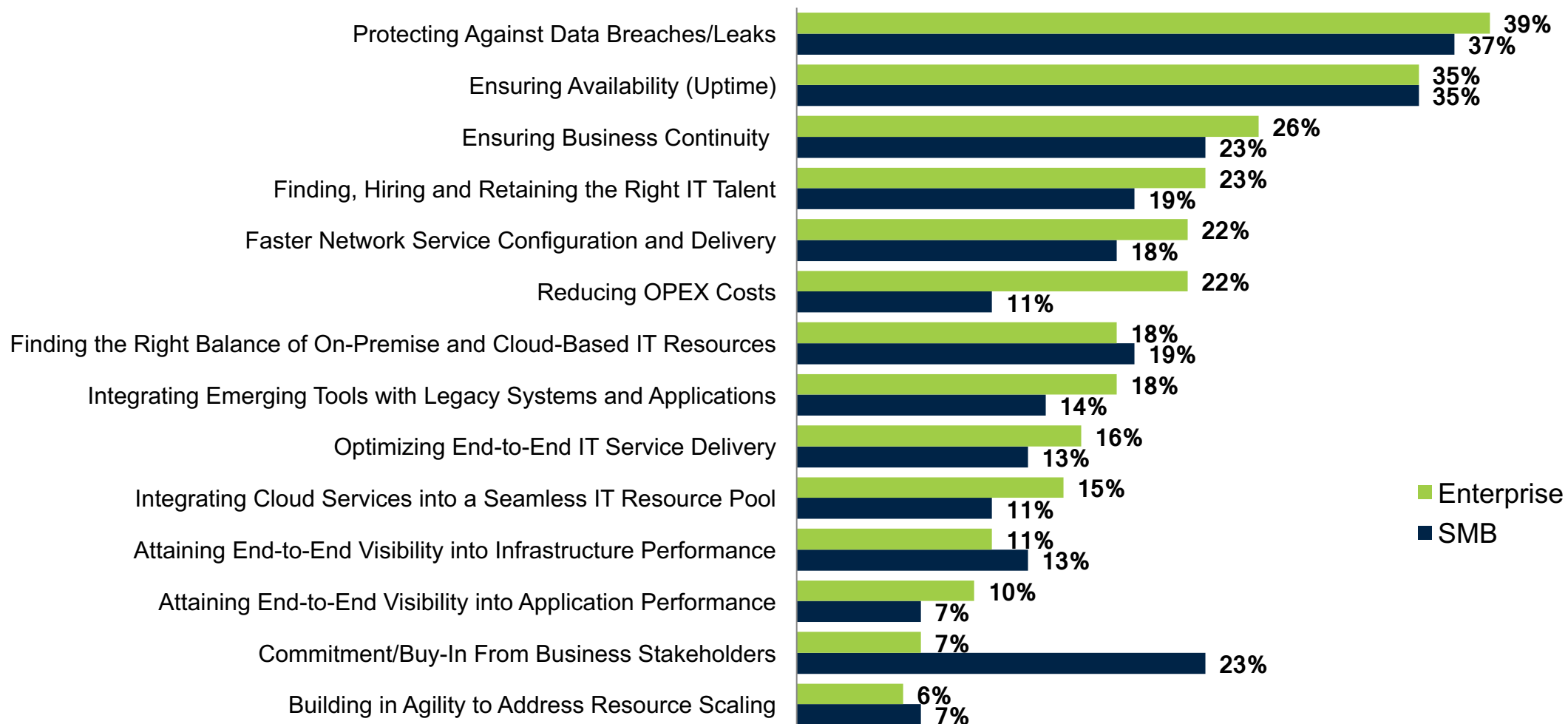
Top Challenges Related to Security & Access to Data

Challenge	Enterprise	SMB
Protecting Against Data Breaches/Leaks	39%	37%
Ensuring Availability (Uptime)	35%	35%
Ensuring Business Continuity	26%	23%
Finding, Hiring and Retaining the Right IT Talent	23%	19%
Faster Network Service Configuration and Delivery	22%	18%
Reducing OPEX Costs	22%	11%
Finding the Right Balance of On-Premise and Cloud-Based IT Resources	18%	19%
Integrating Emerging Tools with Legacy Systems and Applications	18%	14%
Optimizing End-to-End IT Service Delivery	16%	13%
Integrating Cloud Services into a Seamless IT Resource Pool	15%	11%
Attaining End-to-End Visibility into Infrastructure Performance	11%	13%
Attaining End-to-End Visibility into Application Performance	10%	7%
Commitment/Buy-In From Business Stakeholders	7%	23%
Building in Agility to Address Resource Scaling	6%	7%

Q: What are the top network/data center-related challenges and obstacles that your organization is facing?

NETWORKWORLD
FROM IDG

Focus on Data Management/Analytics

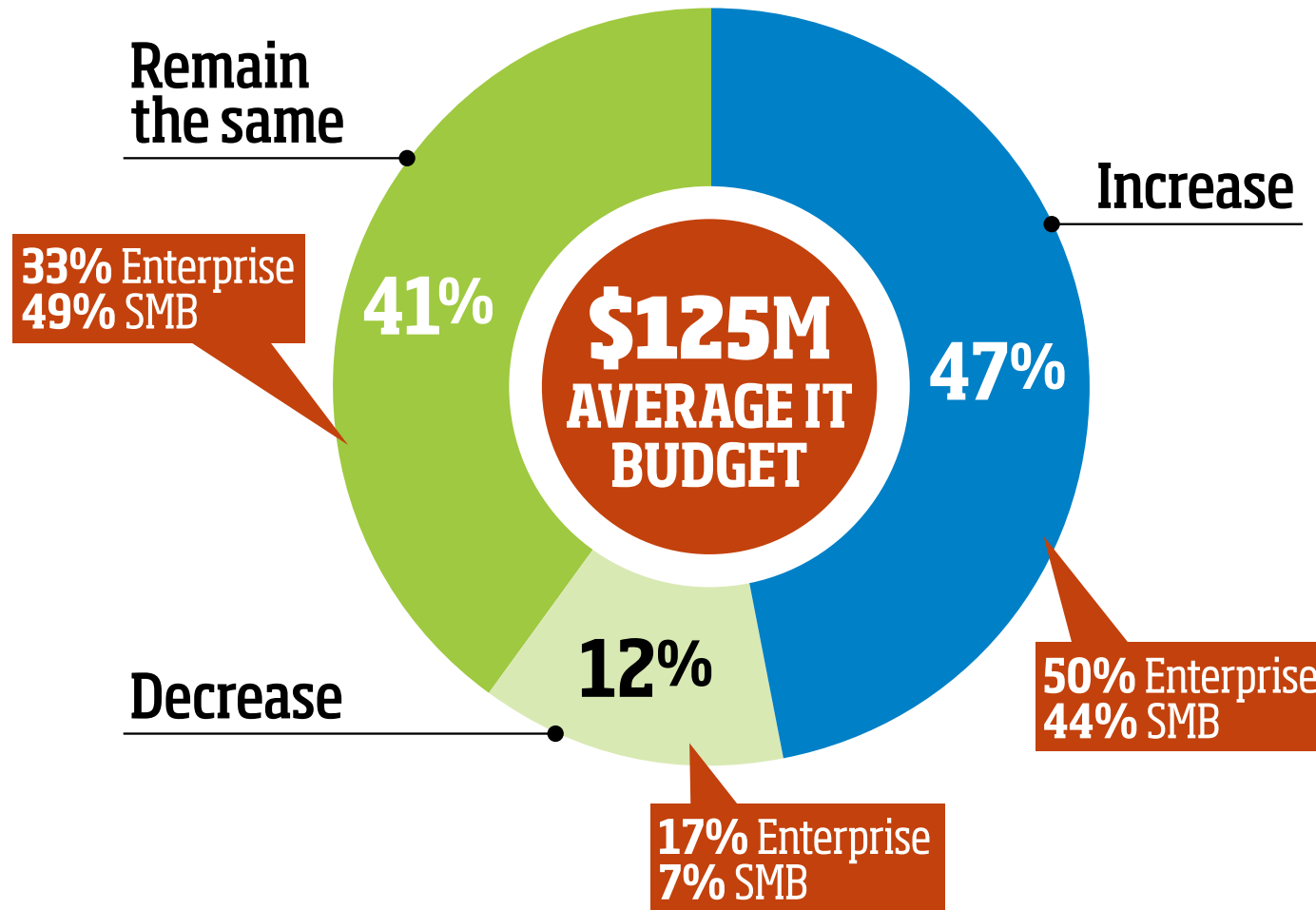|	On the Radar/Actively Researching	Piloting	Installed/In Production	Upgrading/Refining	No Plans
Data Management/Analytics	29%	9%	27%	11%	24%
Storage Virtualization	27%	9%	30%	8%	26%
Tools to Gauge Application Performance	27%	7%	27%	12%	27%
SDN/Network Virtualization	27%	10%	15%	6%	43%
Desktop Virualization	26%	8%	21%	8%	38%
Infrastructure-as-a-Service	25%	9%	15%	8%	44%
App Migration to SaaS Service Providers	24%	13%	16%	8%	39%
Tier 1 Application Virtualization	24%	7%	20%	9%	40%
Data Center Energy Efficiences	23%	8%	16%	13%	41%
Data Center Storage Efficiencies	22%	6%	28%	19%	25%
WAN Optimization	22%	7%	23%	14%	34%
Application Centralization	19%	11%	25%	14%	30%
Network Security Monitoring	19%	7%	42%	21%	11%
Tools (such as ADCs and load barriers) to Optimize App Performance	18%	5%	32%	12%	32%
Server Consolidation	15%	5%	38%	23%	18%

HIGHEST PERCENTAGE ALREADY INSTALLED (annotation pointing to Network Security Monitoring 42%)

Legend: ■ On the Radar/Actively Researching ■ Piloting ■ Installed/In Production ■ Upgrading/Refining ■ No Plans

Q. Which of the following best describes your organization's plans with respect to the following network/data center initiatives?

IT Budgets Continue to Show Growth

Remain the same

33% Enterprise
49% SMB

41%

$125M AVERAGE IT BUDGET

Increase

47%

50% Enterprise
44% SMB

Decrease
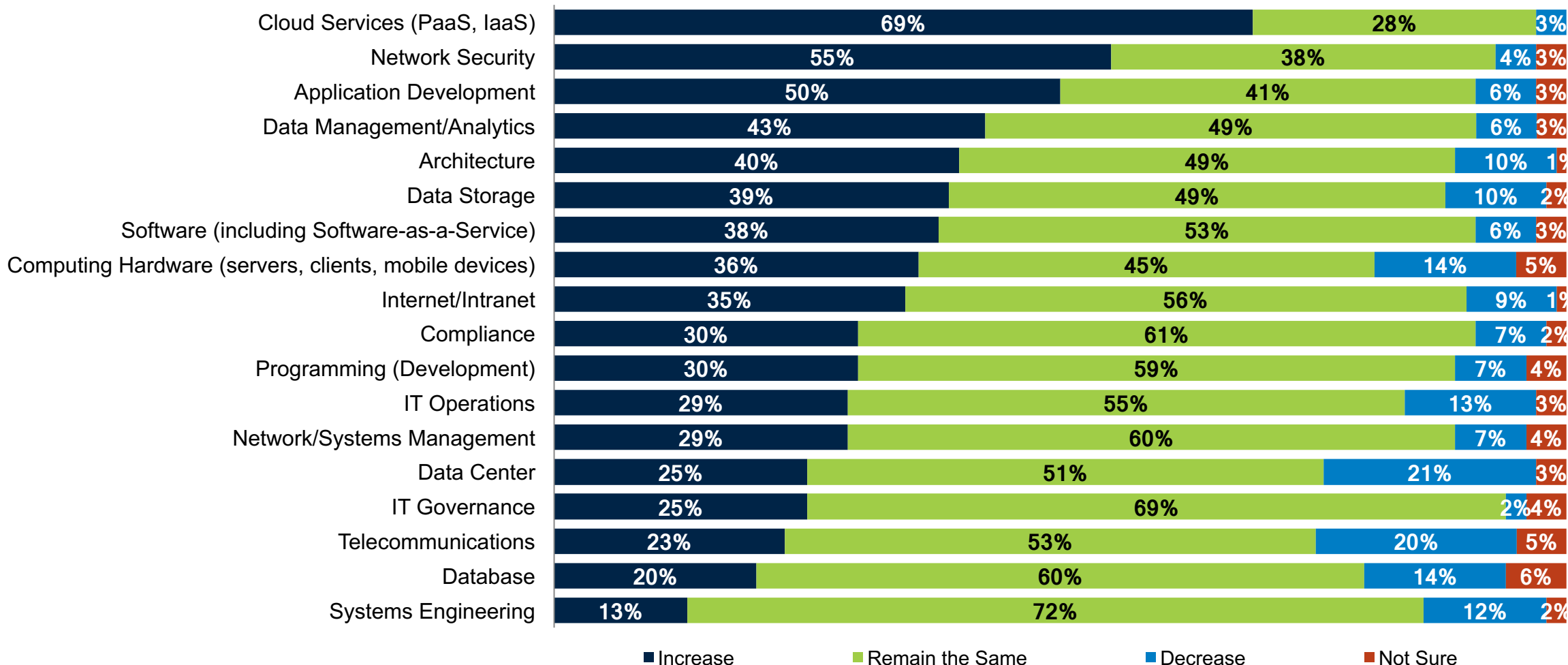
12%

17% Enterprise
7% SMB

On average, budget will increase by:

7% for enterprise organizations and

10% for SMBs

Q: How will your organization's total IT budget change over the next 12 months? AND Q: You mentioned that your overall IT budget will change in the next 12 months compared to the past 12 months. What percentage will this change by?
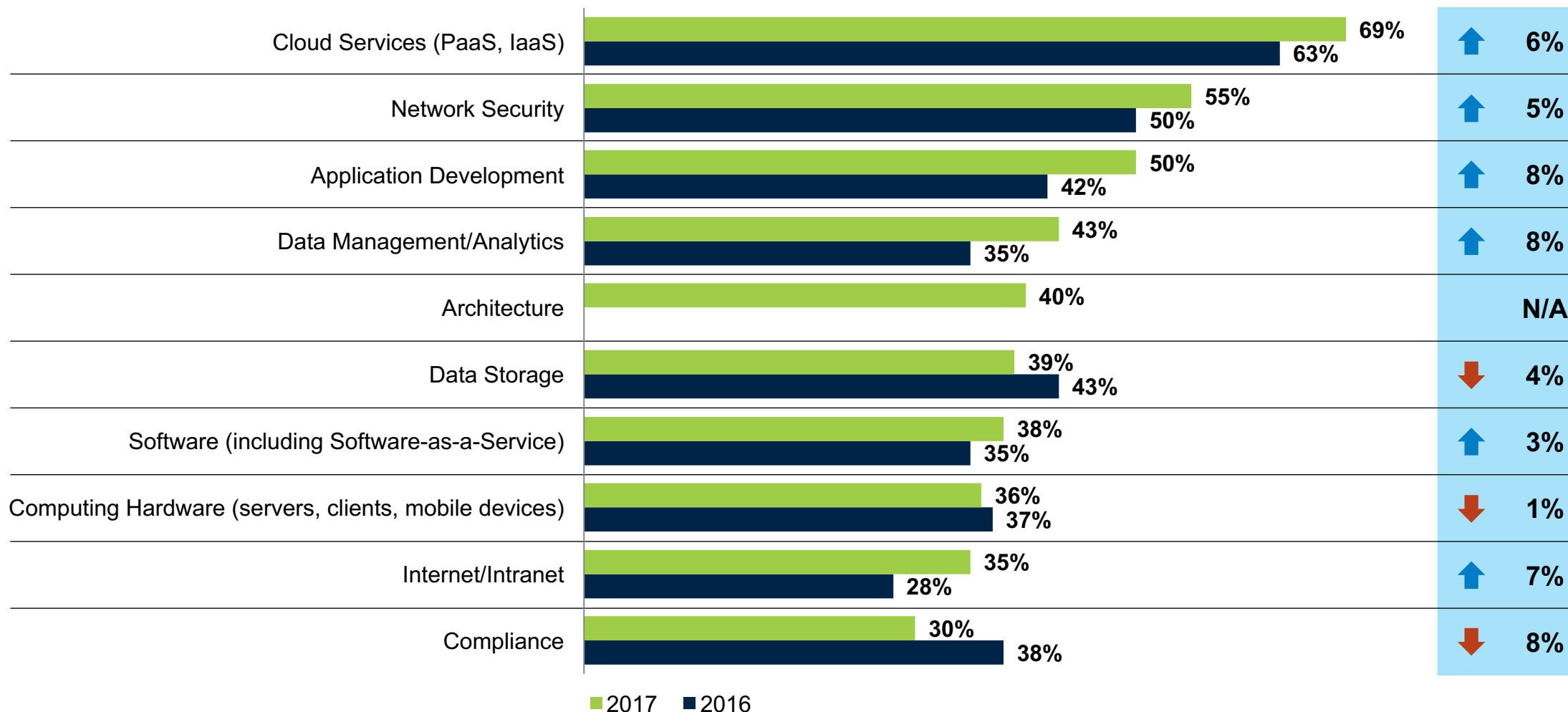
NETWORKWORLD FROM IDG

Dedicated Cloud, Security & App Dev Budgets Expect to Increase

	Increase	Remain the Same	Decrease	Not Sure
Cloud Services (PaaS, IaaS)	69%	28%	3%	
Network Security	55%	38%	4%	3%
Application Development	50%	41%	6%	3%
Data Management/Analytics	43%	49%	6%	3%
Architecture	40%	49%	10%	1%
Data Storage	39%	49%	10%	2%
Software (including Software-as-a-Service)	38%	53%	6%	3%
Computing Hardware (servers, clients, mobile devices)	36%	45%	14%	5%
Internet/Intranet	35%	56%	9%	1%
Compliance	30%	61%	7%	2%
Programming (Development)	30%	59%	7%	4%
IT Operations	29%	55%	13%	3%
Network/Systems Management	29%	60%	7%	4%
Data Center	25%	51%	21%	3%
IT Governance	25%	69%	2%	4%
Telecommunications	23%	53%	20%	5%
Database	20%	60%	14%	6%
Systems Engineering	13%	72%	12%	2%

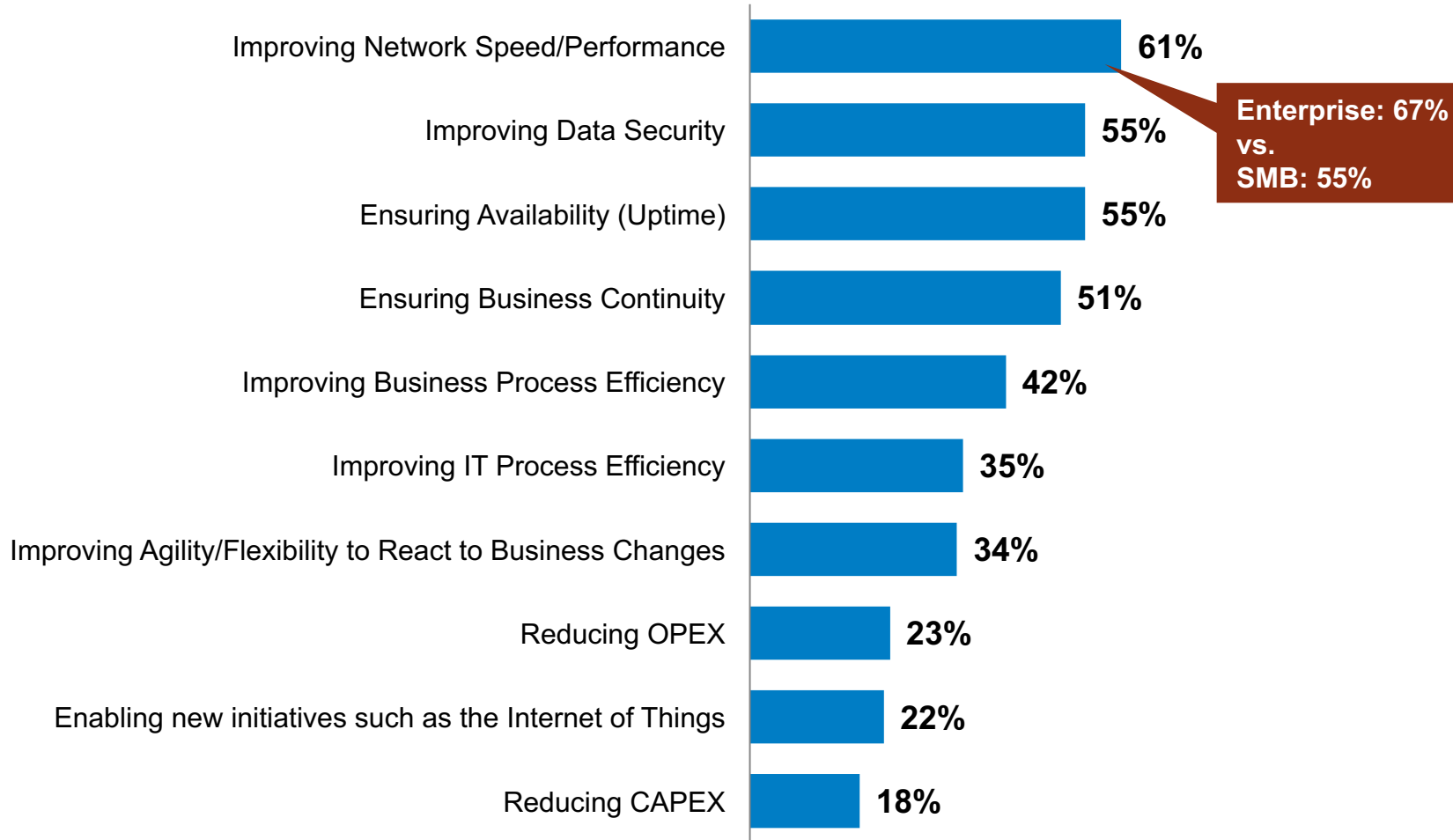■ Increase   ■ Remain the Same   ■ Decrease   ■ Not Sure

Q: Please indicate whether the percent of your organization's total IT budget dedicated to the following areas will increase, decrease or remain the same over the next 12 months.

Source: 2017 State of the Network Study, Network World

NETWORKWORLD
FROM IDG

Majority of Top Technologies See Budget Increase from 2016

Technology	2017	2016	Change
Cloud Services (PaaS, IaaS)	69%	63%	↑ 6%
Network Security	55%	50%	↑ 5%
Application Development	50%	42%	↑ 8%
Data Management/Analytics	43%	35%	↑ 8%
Architecture	40%		N/A
Data Storage	39%	43%	↓ 4%
Software (including Software-as-a-Service)	38%	35%	↑ 3%
Computing Hardware (servers, clients, mobile devices)	36%	37%	↓ 1%
Internet/Intranet	35%	28%	↑ 7%
Compliance	30%	38%	↓ 8%

■ 2017   ■ 2016

Q: Please indicate whether the percent of your organization's total IT budget dedicated to the following areas will increase, decrease or remain the same over the next 12 months.

Source: 2017 State of the Network Study, Network World

NETWORKWORLD
FROM IDG

Speed, Security & Availability Fuel Network Investments

Driver	Percentage
Improving Network Speed/Performance	61%
Improving Data Security	55%
Ensuring Availability (Uptime)	55%
Ensuring Business Continuity	51%
Improving Business Process Efficiency	42%
Improving IT Process Efficiency	35%
Improving Agility/Flexibility to React to Business Changes	34%
Reducing OPEX	23%
Enabling new initiatives such as the Internet of Things	22%
Reducing CAPEX	18%

Enterprise: 67% vs. SMB: 55%

70% of organizations agree that network management is **becoming more involved** in shaping IT strategy.

Q: Which of the following are primary drivers of your organization's networking investments? AND Q: Please rate your level of agreement with the following statements.

NETWORKWORLD
FROM IDG

Network IT:

Collaboration and Responsibilities that Drive Network Growth

NETWORKWORLD
FROM IDG

IT or Business? Reporting Structure Depends on Company Size

Respondents report to...

BUSINESS MANAGEMENT

ENTERPRISE SMB

	BUSINESS MANAGEMENT (NET)	CEO, COO, CHAIRMAN, PRESIDENT	DIRECTOR/ MANAGER	EVP/SVP/VP/GM	CFO, CONTROLLER, TREASURER	OTHER BUSINESS MANAGEMENT
ENTERPRISE	36%	10%	13%	3%	1%	9%
SMB	54%	31%	9%	4%	5%	5%

Respondents report to...

IT MANAGEMENT

ENTERPRISE SMB

	IT MANAGEMENT (NET)	IT DIRECTOR, MANAGER, SUPERVISOR, TECHNICAL CONSULTANT	CIO	CTO	VP, IT
ENTERPRISE	37%	19%	8%	3%	4%
SMB	18%	10%	6%	2%	1%

Q: Who do you personally report to within your organization?

The network management team is communicating with the CIO more than ever says

68% of enterprise organizations and **59%** of SMBs

NETWORKWORLD FROM IDG

Network Team Plays Key Role in IT Daily Activities

IT Operations
76% / 13% / 3%

Systems Administration
74% / 14% / 2%

IT Security
71% / 16% / 4%

IT Services/ Help Desk
66% / 17% / 2%

Operations (Corporate)
45% / 24% / 10%

Technical Consultants
39% / 28% / 5%

Top Business Executives
35% / 36% / 8%

Cloud Infrastructure Architects/Team
34% / 20% / 5%

Finance
29% / 33% / 15%

Sales
21% / 26% / 9%

Marketing
21% / 26% / 11%
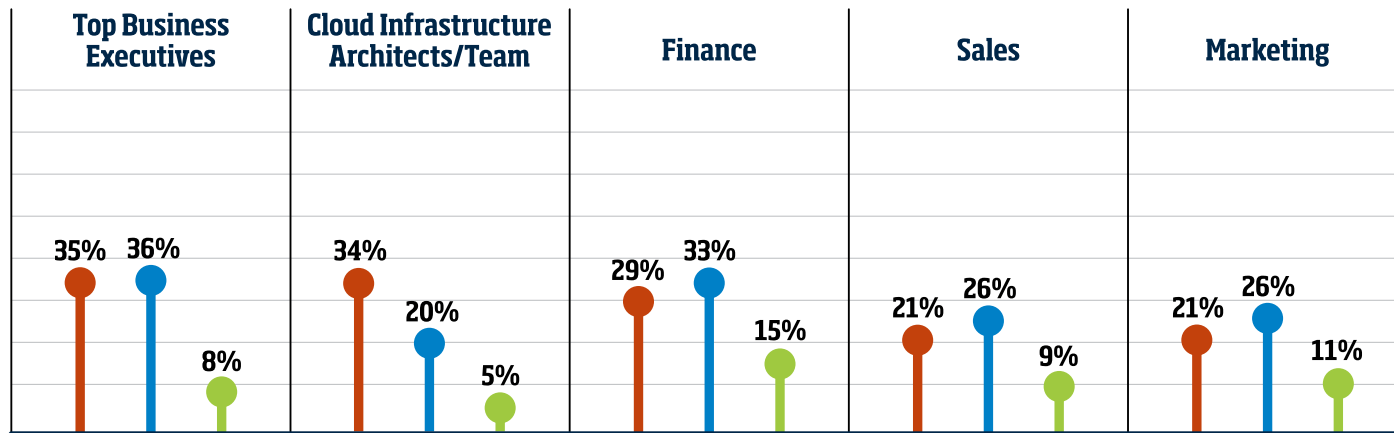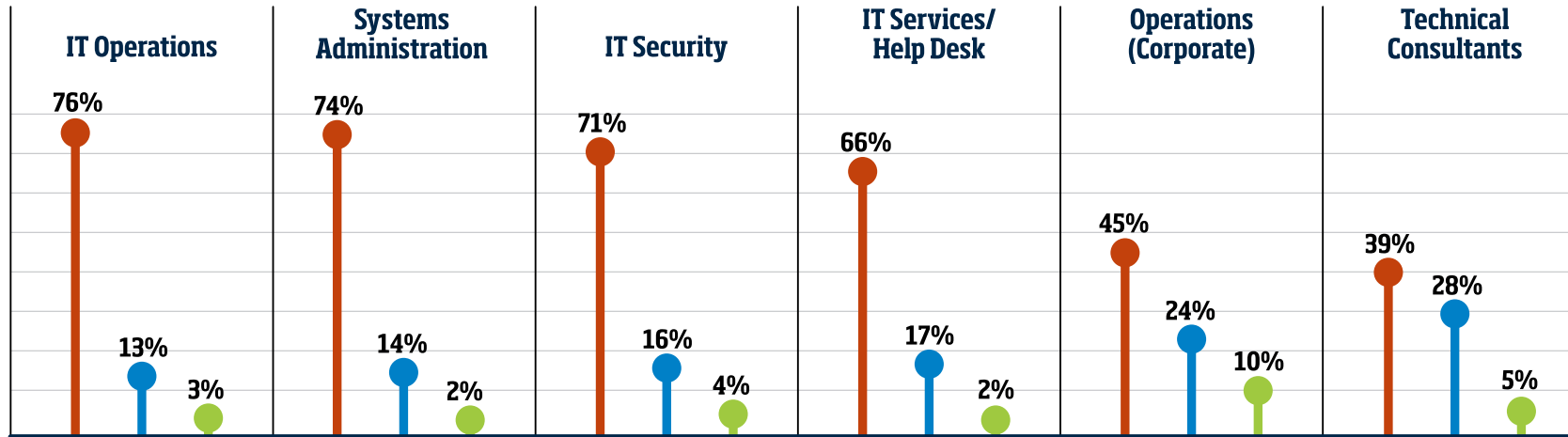
● DAILY/WEEKLY ● MONTHLY ● ANNUALY

78% of organizations agree that the network team is becoming more important to IT's mission.

Q: How frequently does the networking team collaborate with the following areas of your organization?

NETWORKWORLD
FROM IDG

Initiating Collaboration – Network Team Gets Some Help

	Executive IT	IT Management	IT Professional
Always 9%	10%	9%	9%
Usually 31%	34%	38%	19%
Sometimes 49%	49%	47%	50%
Rarely 11%	7%	7%	22%
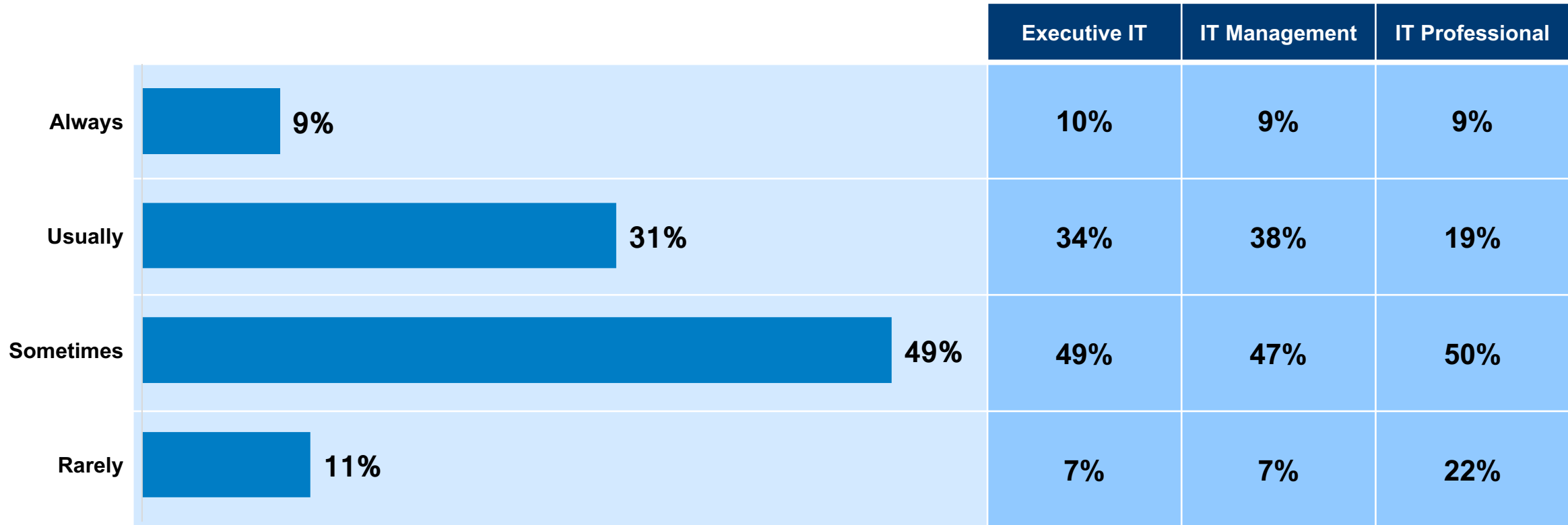
Q: When the networking team collaborates with other areas of the business, how frequently does the networking team initiate that collaboration effort?

NETWORKWORLD FROM IDG

Showing Responsibility in 6 Different Tech Areas

Tech Area	Percent
Network/Systems Management	55%
Network Security	52%
IT Operations	51%
Internet/Intranet	48%
Computing Hardware (servers, clients, mobile devices)	47%
Data Storage	40%
Telecommunications	36%
Architecture	36%
Data Center	35%
Software (including SaaS)	34%
IT Governance	32%
Compliance	31%
Database	31%
Cloud Services (PaaS, IaaS)	30%
Systems Engineering	28%
Data Management/Analytics	24%
Application Development	22%
Programming	16%

87% agree that the role of the network professional is becoming more challenging.

On average, respondents have responsibility in **6** different purchase areas.

Q: In which of the following areas do you primarily have responsibility?

NETWORKWORLD FROM IDG

Network Professionals Determining Tech Requirements

Involvement for Each Stage of the Purchase Process by Technology Area	Determine the Business Need	Determine Technical Requirements	Evaluate Products/ Services	Recommend & Select Vendors	Sell Internally	Authorize/ Approve
Application Development	53%	52%	55%	50%	35%	48% ①
Architecture	60%	66% ①	68% ①	63%	40% ②	41%
Cloud Services (PaaS, IaaS)	61%	56%	66%	57%	36%	43%
Compliance	53%	55%	60%	58%	37%	40%
Computing Hardware (servers, clients, mobile devices)	57%	62%	64%	58%	33%	47% ②
Data Center	57%	58%	65%	55%	37%	38%
Data Management/Analytics	61%	63% ②	60%	53%	42% ①	44%
Data Storage	62% ②	63% ②	62%	60%	36%	44%
Database	51%	54%	59%	50%	33%	43%
Internet/Intranet	55%	55%	61%	56%	33%	41%
IT Governance	51%	49%	53%	49%	33%	45%
IT Operations	58%	59%	60%	59%	34%	44%
Network Security	64% ①	66% ①	66%	64% ②	37%	43%
Network/Systems Management	57%	63% ②	65%	60%	33%	40%
Programming	48%	50%	41%	46%	30%	48% ①
Software (including Software-as-a-Service)	52%	49%	59%	58%	33%	48% ①
Systems Engineering	56%	61%	67% ②	65% ①	38%	34%
Telecommunications	55%	63% ②	65%	65% ①	42% ①	41%

BOXES INDICATE TOP 2 RESPONSES.

Q: How are you involved in the purchase process for each of the following technology areas?

NETWORKWORLD
FROM IDG

Technology Trends
Increasing Network Involvement

NETWORKWORLD
FROM IDG
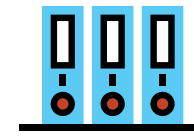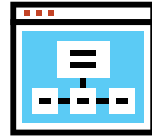
TECHNOLOGY TRENDS:
Security

NETWORKWORLD
FROM IDG

Network Security Matures, Insider Threat Solutions on the Rise

	On the Radar/Actively Researching	Piloting	Installed/In Production	Upgrading/Refining	No plans
Data Loss Prevention (DLP)	35%	6%	34%	11%	14%
Next Generation Firewalls	34%	9%	31%	9%	17%
ID Management Solutions	34%	7%	24%	8%	27%
Securing Access for Mobility Programs	30%	11%	26%	9%	26%
Implementing Cloud Access Security Brokers (CASBs)	29%	8%	12%	3%	48%
Corporate Data Encryption	27%	8%	35%	8%	22%
Enterprise Mobility Management (such as, MDM, MAM, MIM)	26%	11%	23%	9%	30%
Securing Access to Social Media	25%	9%	27%	9%	30%
Endpoint Security	18%	8%	52%	13%	9%
Network Security	17%	4%	56%	19%	4%

Enterprise: 17%
SMB: 43%

82% of organizations agree that the network team is involved in security initiatives to **a greater degree than in the past**

Q: Which of the following best describes your organization's plans with respect to the following network security-related initiatives?
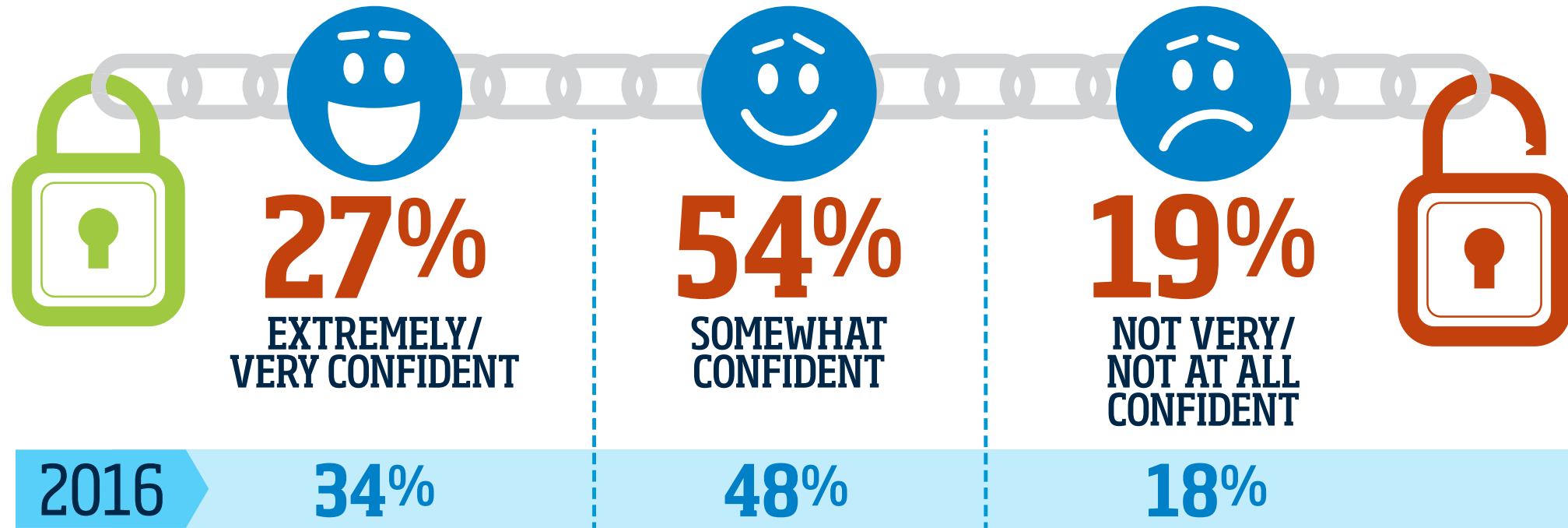
Mix of Cloud & On Premise Network Security Solutions
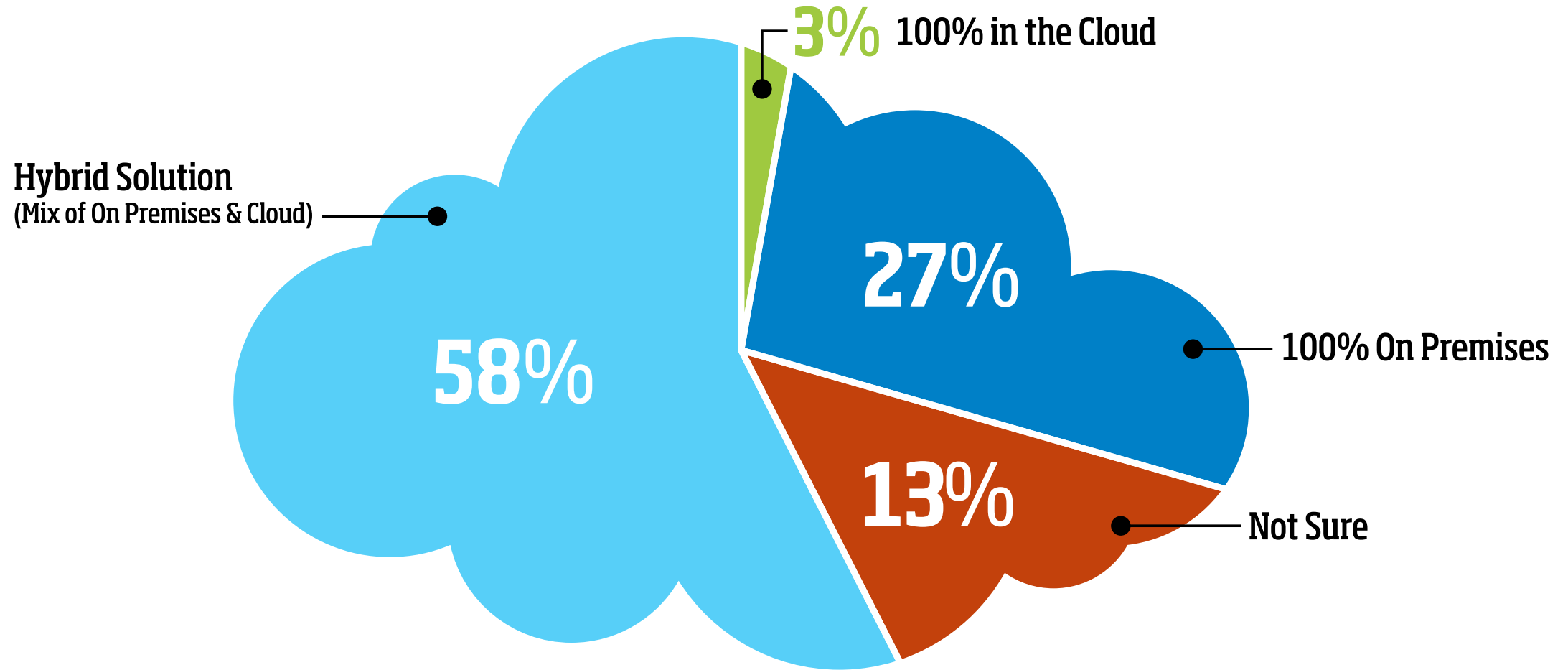
3% 100% in the Cloud

Hybrid Solution
(Mix of On Premises & Cloud)

27%

58%

100% On Premises

13%

Not Sure

Q: How will your organization deploy network security solutions over the next 12 months?

Source: 2017 State of the Network Study, Network World

NETWORKWORLD
FROM IDG

Varying Confidence Levels for Security Automation

27%
EXTREMELY/
VERY CONFIDENT

54%
SOMEWHAT
CONFIDENT

19%
NOT VERY/
NOT AT ALL
CONFIDENT

| 2016 | 34% | 48% | 18% |

ON AVERAGE **44%** OF AN ORGANIZATION'S NETWORK SECURITY IS AUTOMATED.

Q: What is your organization's level of network security automation? AND Q: How confident are you in your organization's level of network security automation?

NETWORKWORLD
FROM IDG

Organizations Willing to Introduce Emerging Security Vendors

NOT SURE

9%

SOMEWHAT LESS/
MUCH LESS RISKY

12%

32%

MUCH MORE/
SOMEWHAT
MORE RISKY

47%
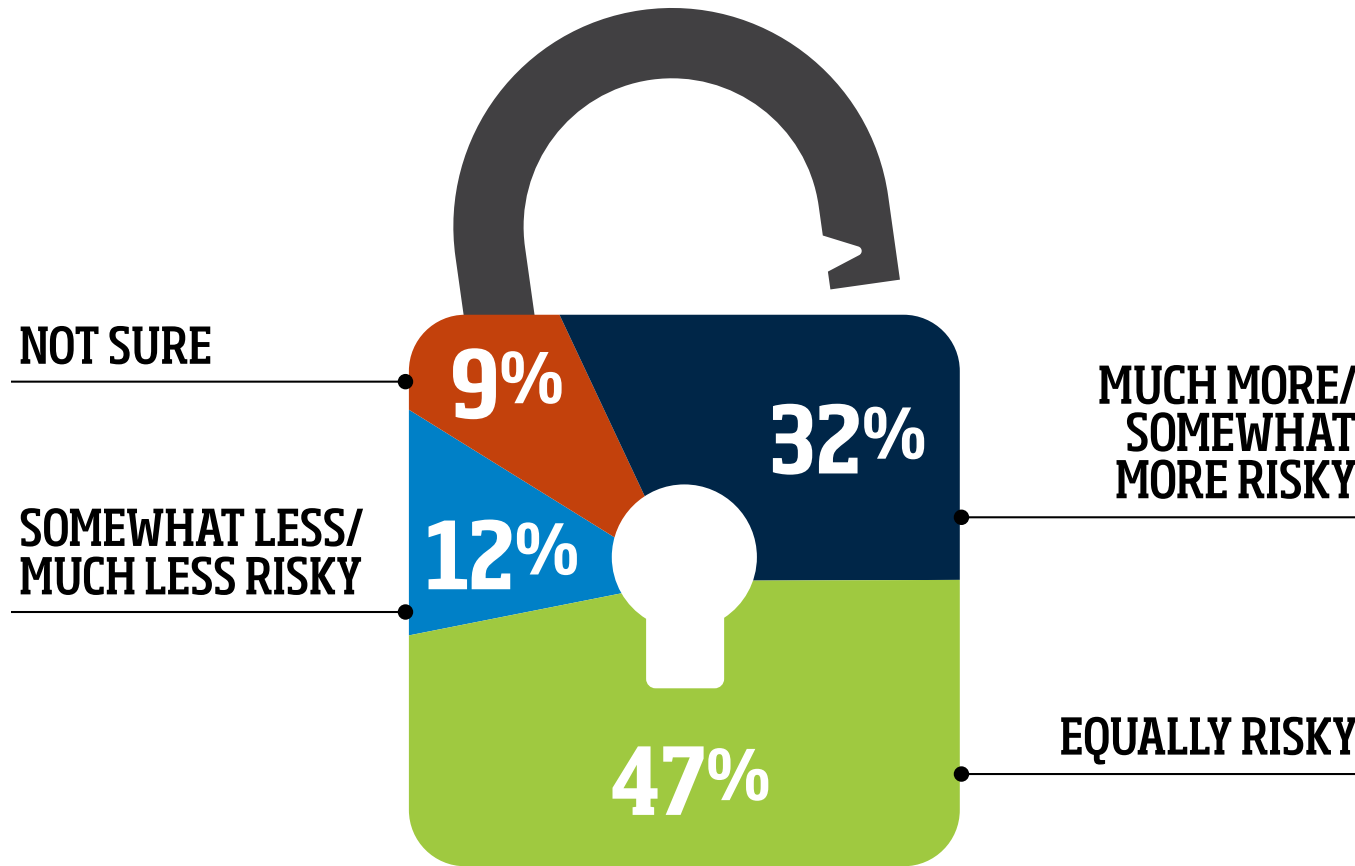
EQUALLY RISKY

	Enterprise	SMB
Much more/ somewhat more risky	41%	24%
Equally risky	38%	55%
Somewhat less/ much less risky	13%	11%
Not sure	8%	11%

Q: In general, do you perceive emerging IT security vendors as introducing more, less, or an equal amount of risk to your network versus established vendors?
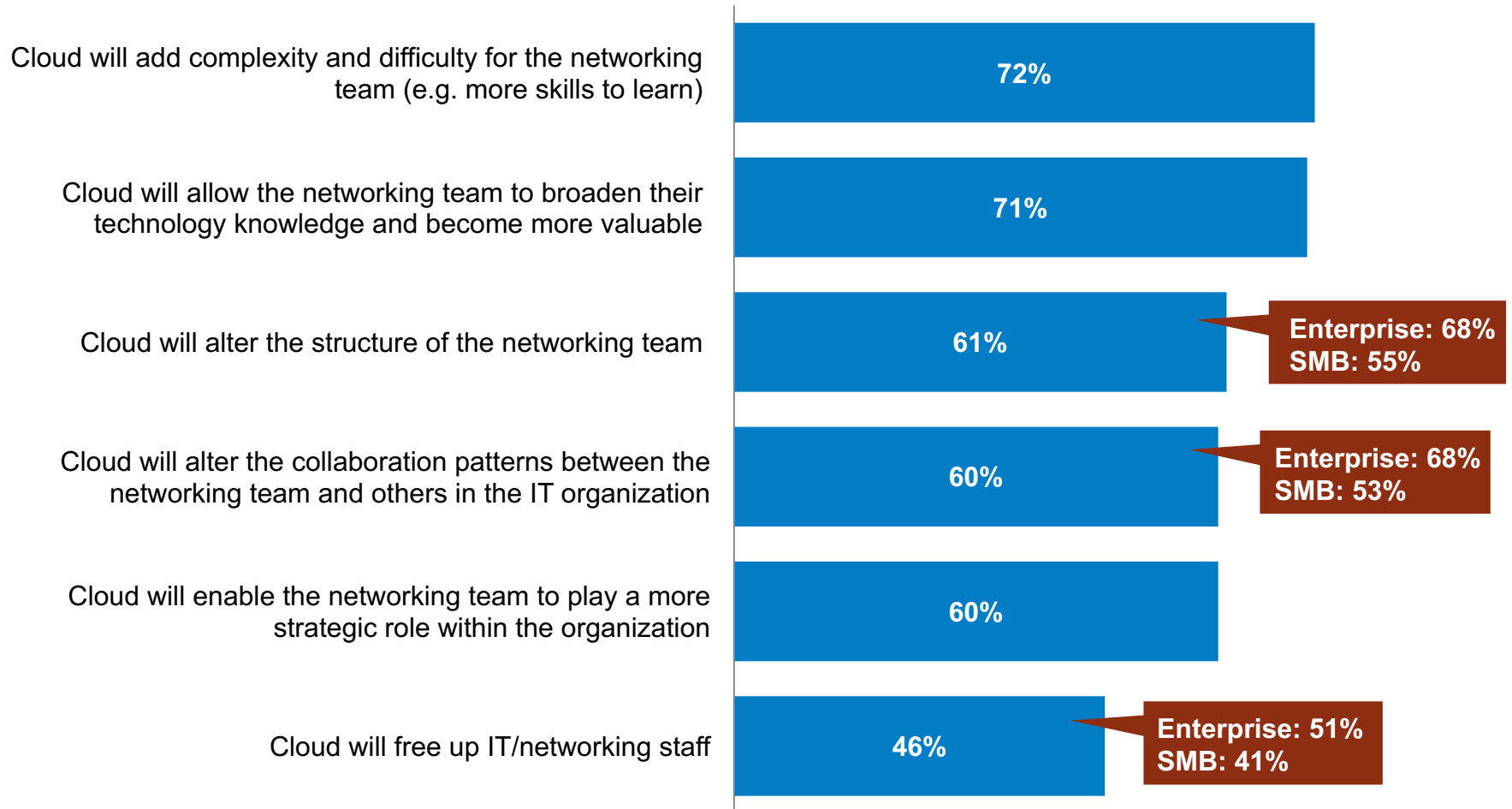
TECHNOLOGY TRENDS:
Cloud Computing

NETWORKWORLD
FROM IDG
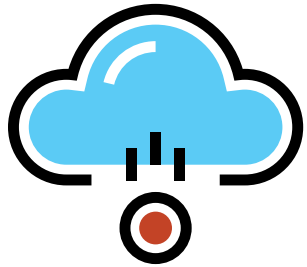
While Representing Opportunity, Cloud Also Brings Complexity

Cloud will add complexity and difficulty for the networking team (e.g. more skills to learn) — **72%**

Cloud will allow the networking team to broaden their technology knowledge and become more valuable — **71%**

Cloud will alter the structure of the networking team — **61%**
Enterprise: 68%
SMB: 55%

Cloud will alter the collaboration patterns between the networking team and others in the IT organization — **60%**
Enterprise: 68%
SMB: 53%

Cloud will enable the networking team to play a more strategic role within the organization — **60%**

Cloud will free up IT/networking staff — **46%**
Enterprise: 51%
SMB: 41%

56%
We are still identifying IT operations that are candidates for cloud hosting

Q: Please rate your level of agreement with the following statements regarding the impact of cloud computing on the networking team at your organization over the next 12 months. (Strongly Agree/Agree)
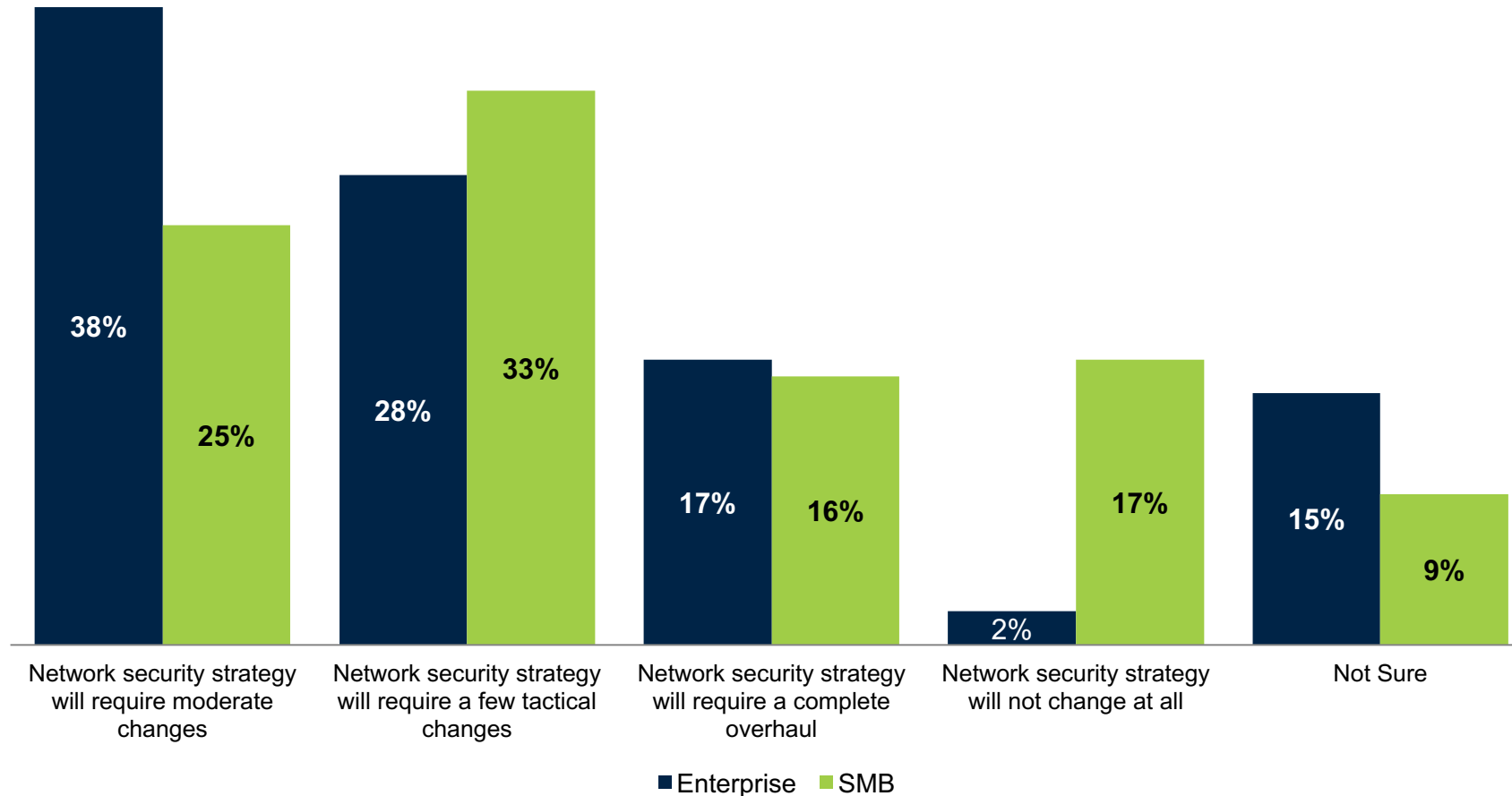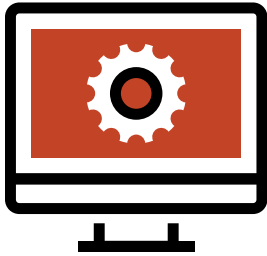
NETWORKWORLD
FROM IDG

TECHNOLOGY TRENDS:
Software-Defined Networking

NETWORKWORLD
FROM IDG

Software-Defined Networking Struggling with IT Skills Gap

Challenge	Percentage
IT Skill Gaps	46%
Integrating with Legacy Technology	40%
Staff Resource Constraints	28%
Explaining the Value Proposition to Gain Business Buy-in	25%
Reluctance to Change within IT	21%
Lack of Trustworthy and Reliable Support from Vendors Due to the Immaturity of the Technology	21%
Business Disruption/Downtime During Transition	21%
Difficulty Choosing the Right Vendor	20%
Long Expected Time to Return on Investments	18%

Enterprise: 51% SMB: 41%

Enterprise: 27% SMB: 16%

Q.: What challenges do you associate with deployment of software-defined networking (SDN) technologies?

Source: 2017 State of the Network Study, Network World

NETWORKWORLD FROM IDG

Organizations Plan for SDN Piloting & Installation
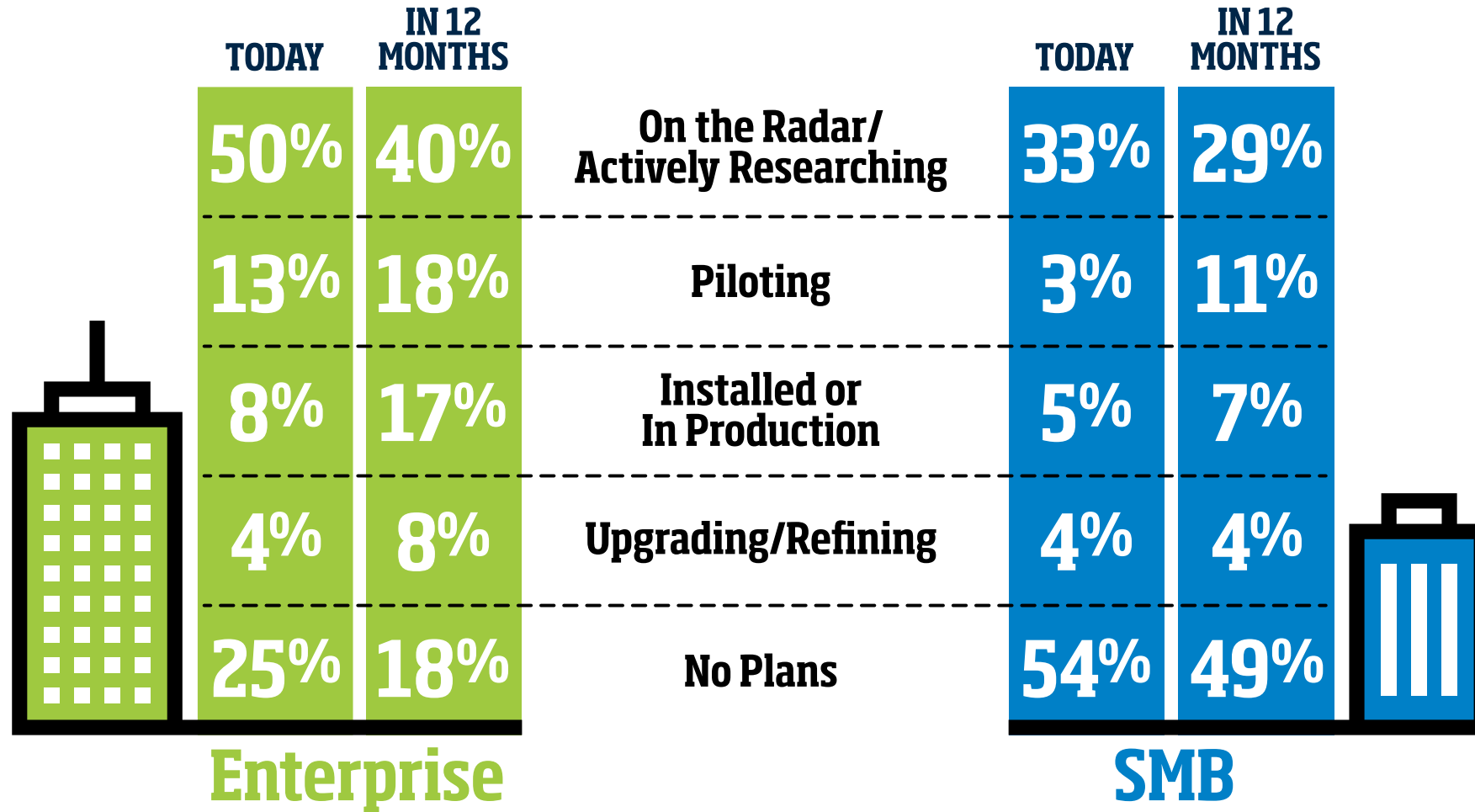
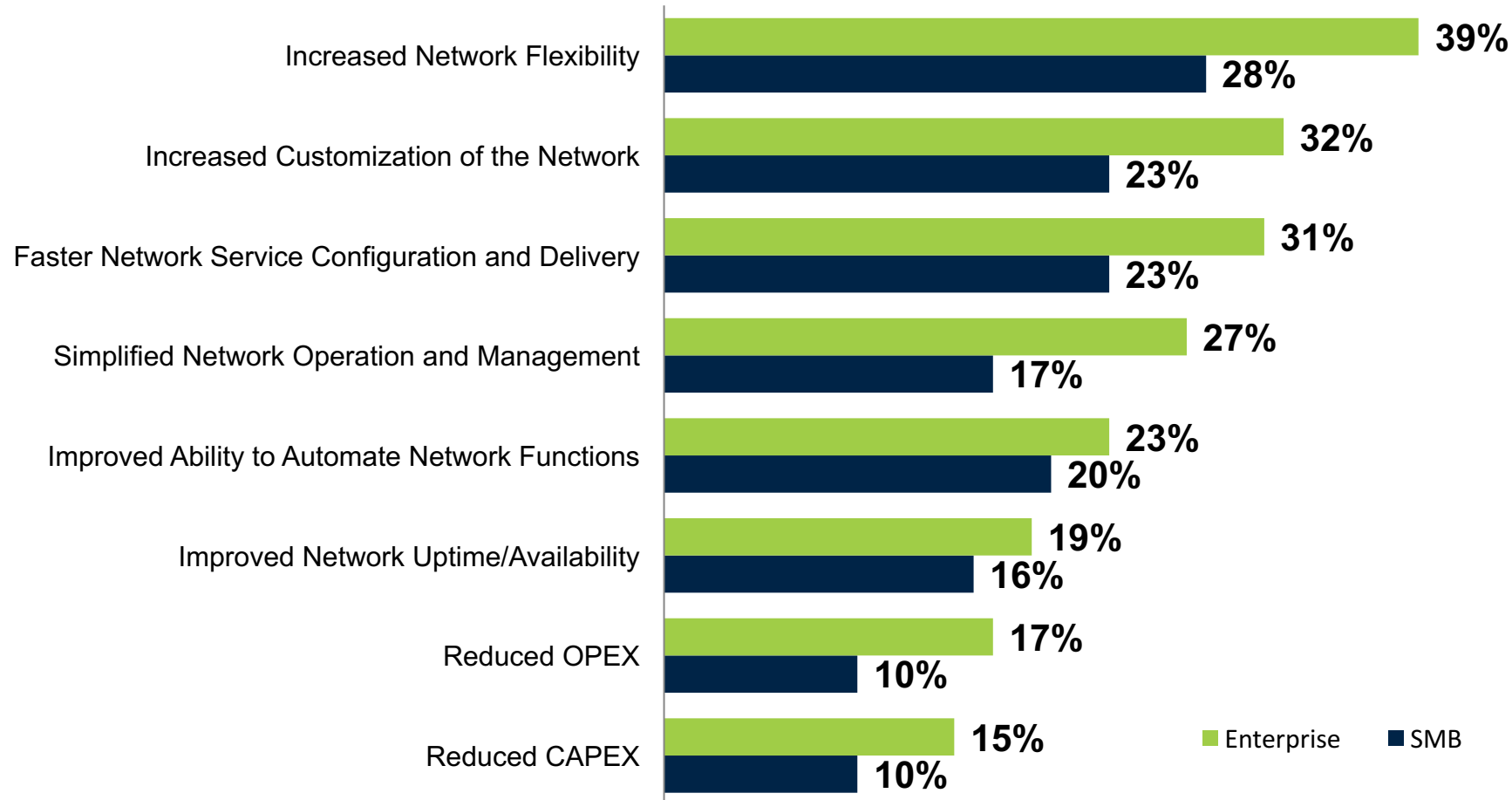|	TODAY	IN 12 MONTHS		TODAY	IN 12 MONTHS
Enterprise	50%	40%	On the Radar/ Actively Researching	33%	29%
	13%	18%	Piloting	3%	11%
	8%	17%	Installed or In Production	5%	7%
	4%	8%	Upgrading/Refining	4%	4%
	25%	18%	No Plans	54%	49%

Enterprise

SMB

Q.: Which of the following best describes your organization's plans with respect to Software Defined Networking (SDN) technology today and 12 months from now?

NETWORKWORLD FROM IDG

Enterprises Anticipate Flexibility, Customization & Speed from SDN

2016 Results

Increased Network Flexibility
- Enterprise: 39%
- SMB: 28%

Increased Customization of the Network
- Enterprise: 32%
- SMB: 23%

Faster Network Service Configuration and Delivery
- Enterprise: 31%
- SMB: 23%

Simplified Network Operation and Management
- Enterprise: 27%
- SMB: 17%

Improved Ability to Automate Network Functions
- Enterprise: 23%
- SMB: 20%

Improved Network Uptime/Availability
- Enterprise: 19%
- SMB: 16%

Reduced OPEX
- Enterprise: 17%
- SMB: 10%

Reduced CAPEX
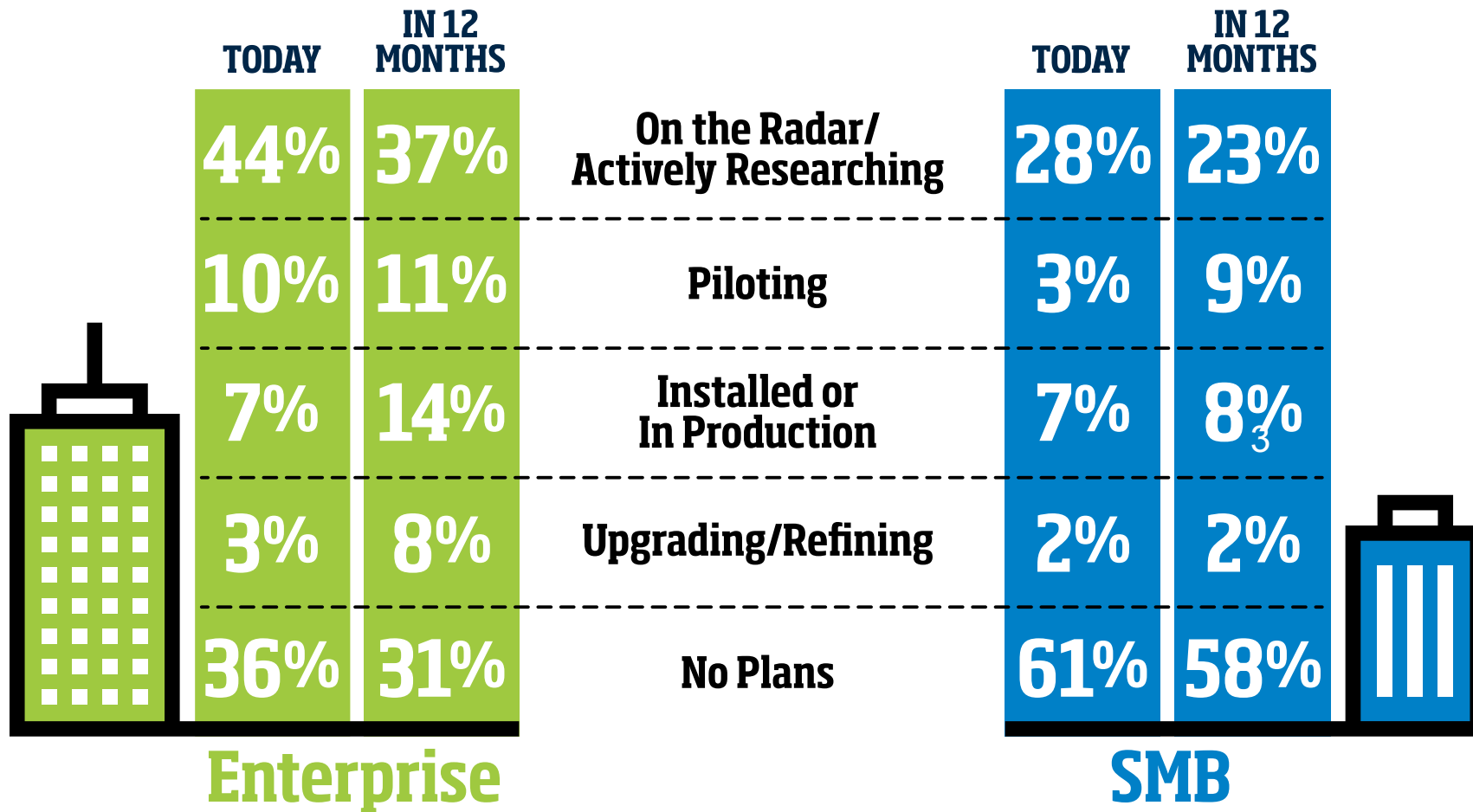- Enterprise: 15%
- SMB: 10%

■ Enterprise   ■ SMB

36%
Strongly Agree/Agree that Software-Defined Networking (SDN) will radically change their network for the better.

Q. Which of the following benefits has your organization experienced, or do you anticipate your organization will experience, from software defined networking (SDN) technology? AND Q. Please rate your level of agreement with the following statements.
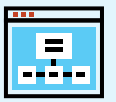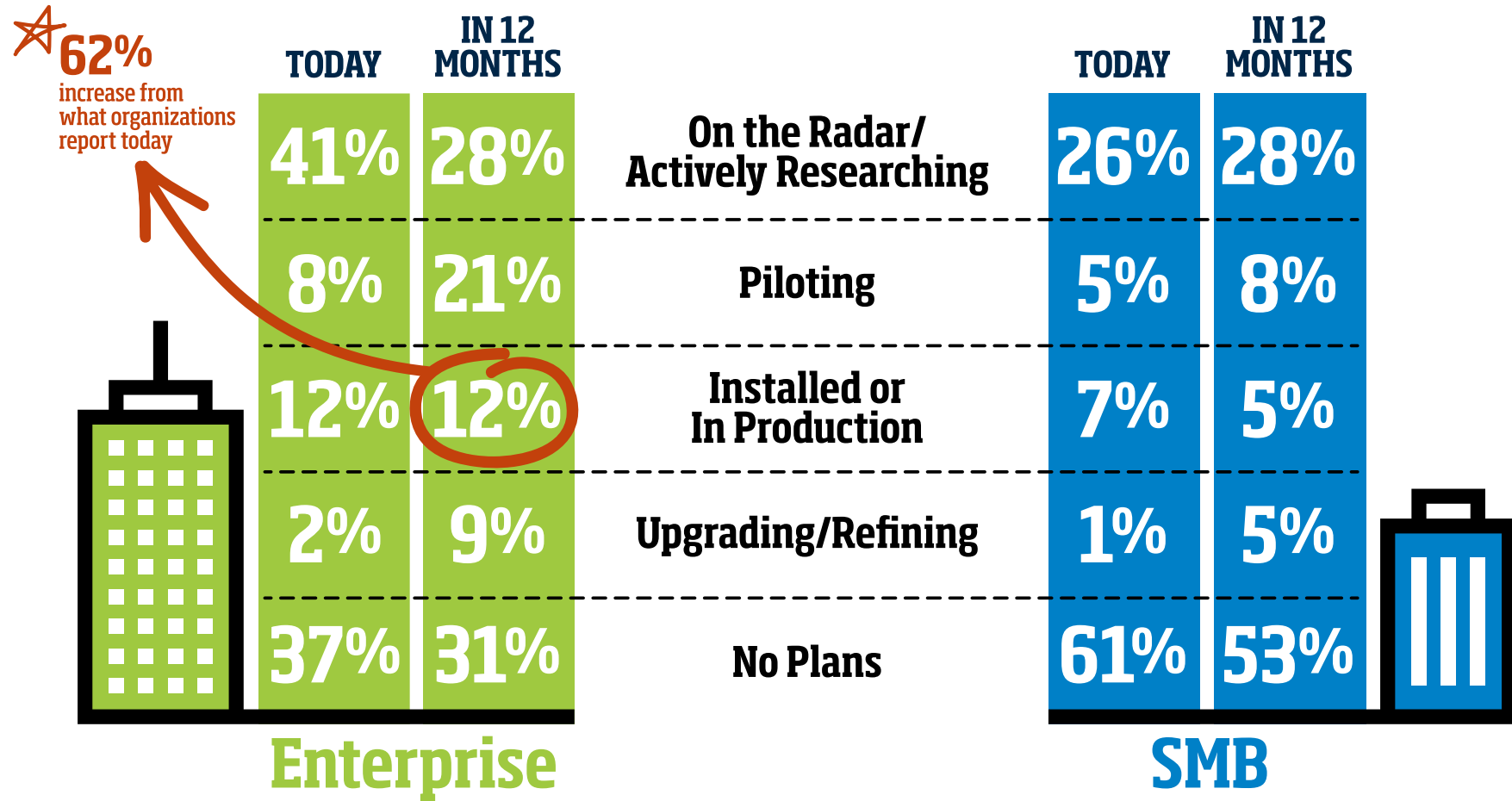
Enterprise Leads SD-WAN Adoption

	Enterprise			SMB	
	TODAY	IN 12 MONTHS		TODAY	IN 12 MONTHS
On the Radar/ Actively Researching	44%	37%		28%	23%
Piloting	10%	11%		3%	9%
Installed or In Production	7%	14%		7%	8%
Upgrading/Refining	3%	8%		2%	2%
No Plans	36%	31%		61%	58%

POTENTIAL BENEFITS

1. Increased Resiliency — 54%
2. Increased Agility from Software Control — 54%
3. Lower Cost — 41%
4. Stepping Stone Away from MPLS — 20%

Q. Which of the following best describes your organization's plans with respect to Software Defined WAN (SD-WAN) technology today and 12 months from now? AND Q. Which of the following do you view as potential benefits of SD-WAN technology?

Actively Researching Network Function Virtualization

Network Function Virtualization

62% increase from what organizations report today

	Enterprise TODAY	Enterprise IN 12 MONTHS		SMB TODAY	SMB IN 12 MONTHS
	41%	28%	On the Radar/ Actively Researching	26%	28%
	8%	21%	Piloting	5%	8%
	12%	12%	Installed or In Production	7%	5%
	2%	9%	Upgrading/Refining	1%	5%
	37%	31%	No Plans	61%	53%

Enterprise

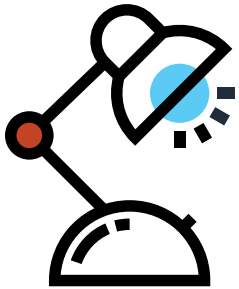**SMB**

Overall **51%** of organizations have NFV plans

Of the organizations that have some NFV plans …

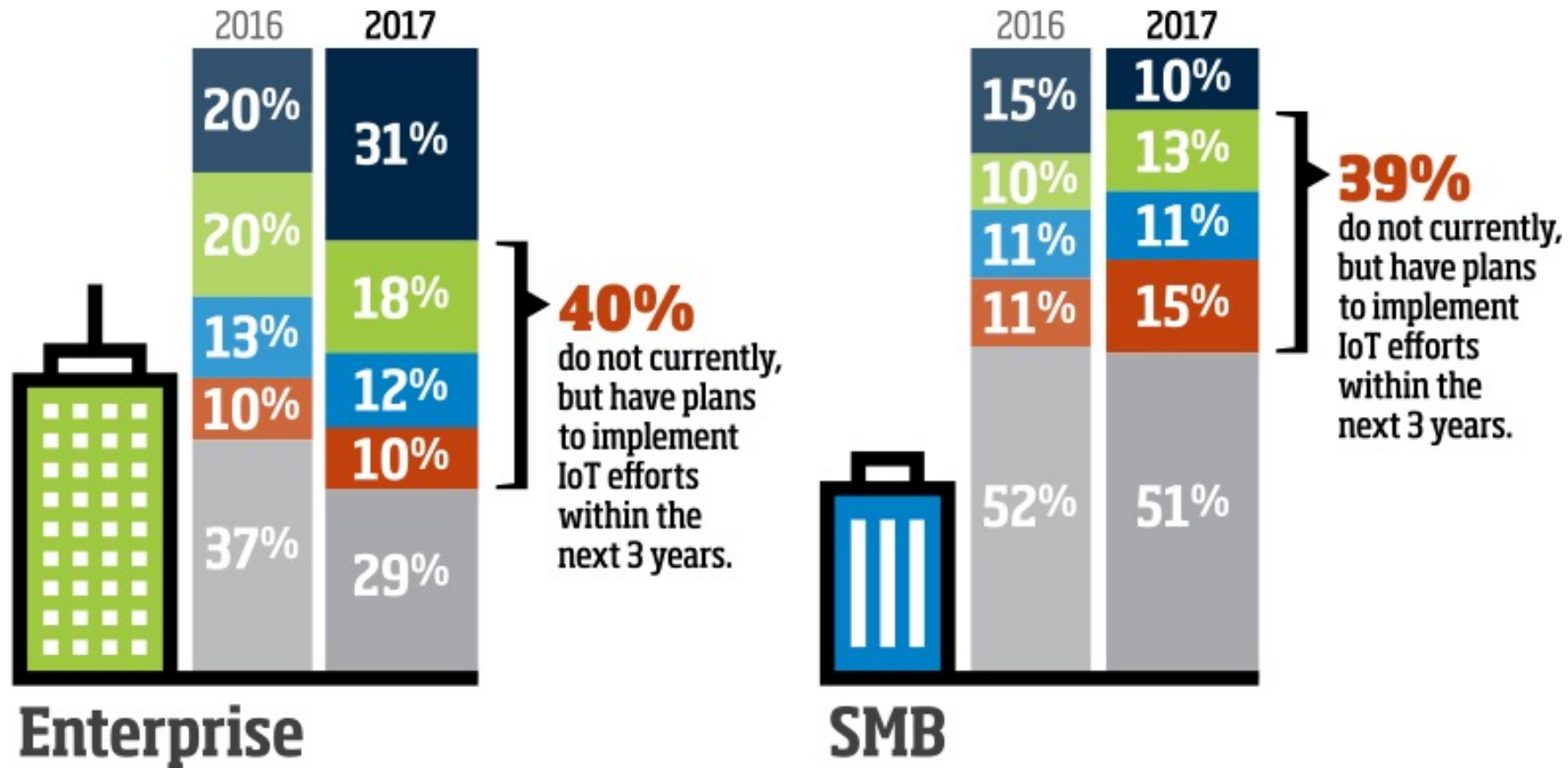**37%** work directly with vendor

26% work with a service provider

Q. Which of the following best describes your organization's plans with respect to Network Function Virtualization (NFV) today and 12 months from now?
AND Q. Did or will your organization work directly with a vendor to install NFV, or did/will you work with a service provider?

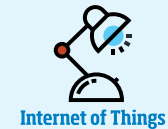# TECHNOLOGY TRENDS:
Internet of Things

NETWORKWORLD
FROM IDG

Jump in Enterprise IoT Efforts

Enterprise

2016 | 2017
- 20% | 31%
- 20% | 18%
- 13% | 12%
- 10% | 10%
- 37% | 29%

40% do not currently, but have plans to implement IoT efforts within the next 3 years.

SMB

2016 | 2017
- 15% | 10%
- 10% | 13%
- 11% | 11%
- 11% | 15%
- 52% | 51%

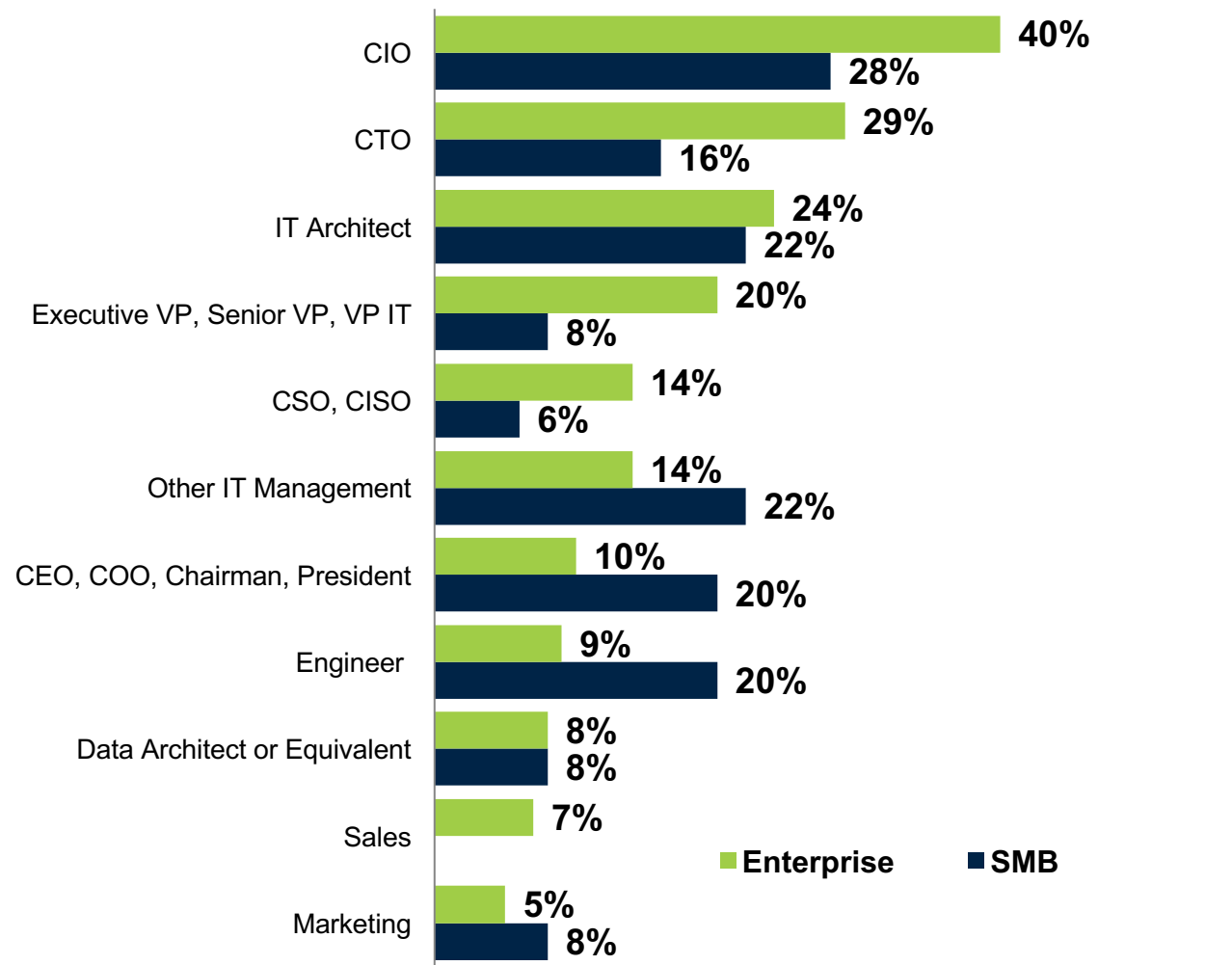**39%** do not currently, but have plans to implement IoT efforts within the next 3 years.

Legend:
- Yes
- No, but expect to within the next 12 months
- No, but expect to within the next 1-2 years
- No, but expect to within the next 2-3 years
- No and no immediate plans

Q: Does your organization have IoT efforts underway today?
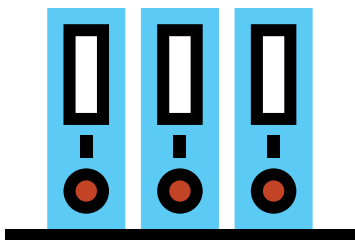
NETWORKWORLD
FROM IDG

IoT Momentum Comes from IT Management

Enterprise | **SMB**

Role	Enterprise	SMB
CIO	40%	28%
CTO	29%	16%
IT Architect	24%	22%
Executive VP, Senior VP, VP IT	20%	8%
CSO, CISO	14%	6%
Other IT Management	14%	22%
CEO, COO, Chairman, President	10%	20%
Engineer	9%	20%
Data Architect or Equivalent	8%	8%
Sales	7%	
Marketing	5%	8%

How is IoT Leveraged?

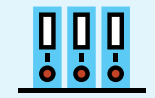|	
Customer Service & Support	44%
Operational Efficiency (manufacturing, supply chain management, logistics)	38%
Data Management/Analytics	36%
Creating New Products & Support	29%
Other	16%

ENTERPRISE: 47% **SMB: 29%**

ENTERPRISE: 43% **SMB: 29%**

71% of manufacturing -industries will leverage IoT for **operational efficiency**

Q: Who will lead / is leading IoT efforts at your organization? AND Q. How will your company leverage IoT?

Source: 2017 State of the Network Study, Network World

NETWORKWORLD
FROM IDG

TECHNOLOGY TRENDS:
Converged & Hyperconverged Infrastructure

NETWORKWORLD
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Converged & Hyperconverged Infrastructure Implementation
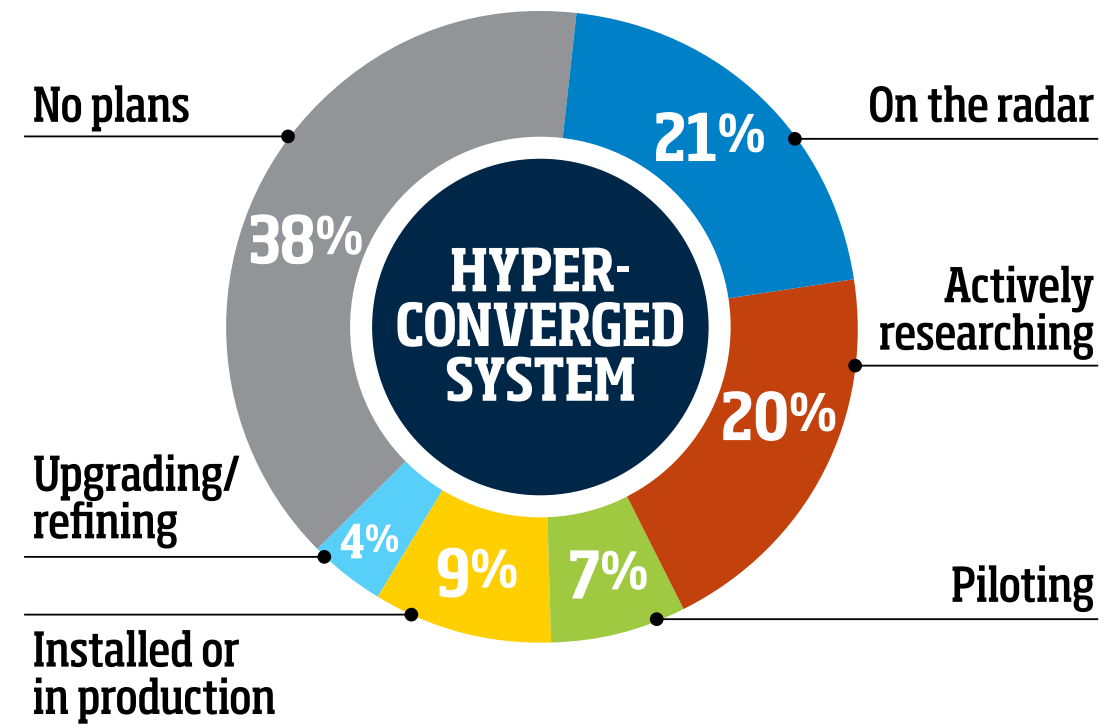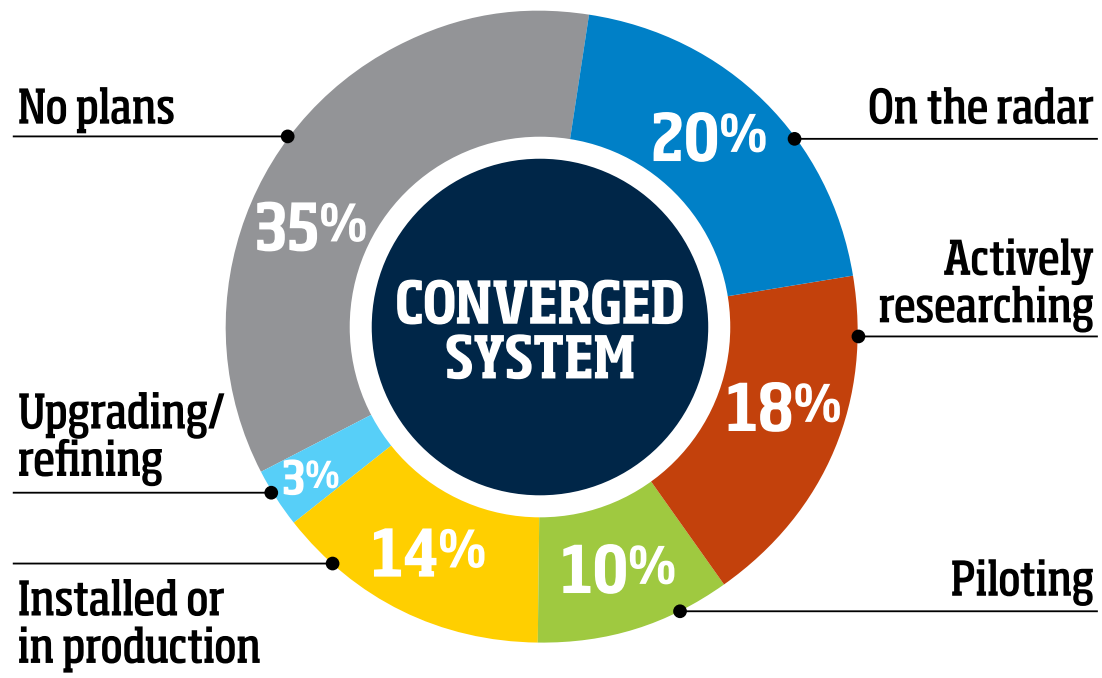
CONVERGED SYSTEM

- On the radar — 20%
- Actively researching — 18%
- Piloting — 10%
- Installed or in production — 14%
- Upgrading/refining — 3%
- No plans — 35%

HYPER-CONVERGED SYSTEM

- On the radar — 21%
- Actively researching — 20%
- Piloting — 7%
- Installed or in production — 9%
- Upgrading/refining — 4%
- No plans — 38%

Q: Which of the following best describes your organization's plans to implement converged and/or hyper converged systems over the next 12 months?

Enterprise Actively Planning Converged & Hyperconverged Systems

TECHNOLOGY TRENDS
Converged & Hyperconverged Infrastructure

	Enterprise			SMB	
	CONVERGED	HYPER-CONVERGED		CONVERGED	HYPER-CONVERGED
On the Radar/ Actively Researching	40%	40%		37%	43%
Piloting	15%	13%		5%	3%
Installed or In Production	17%	15%		11%	4%
Upgrading/Refining	4%	5%		1%	3%
No Plans	24%	28%		46%	48%

76% of enterprise organizations have plans to implement converged infrastructure

72% of enterprise organizations have plans to implement hyperconverged infrastructure
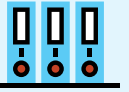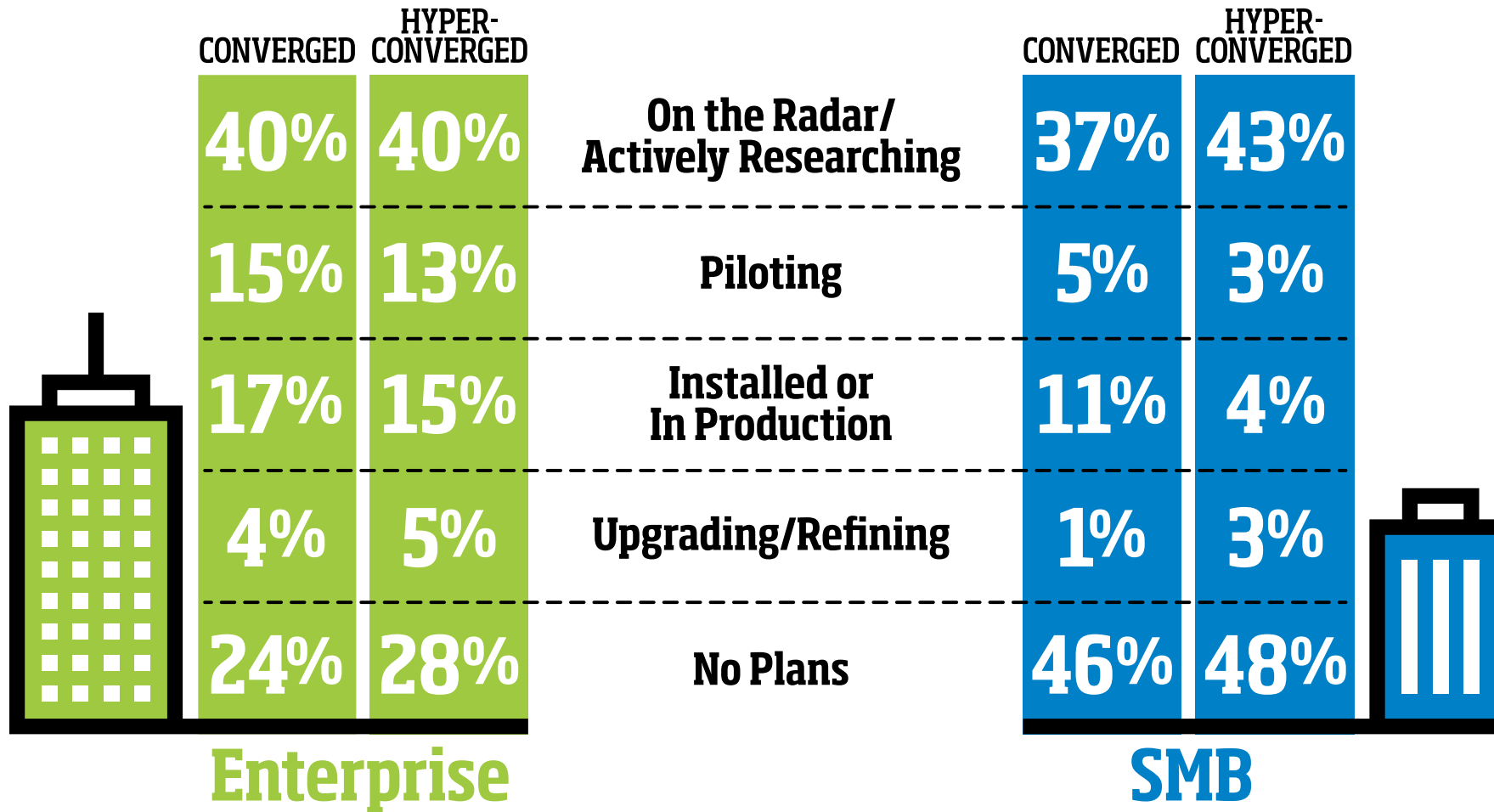
Q: Which of the following best describes your organization's plans to implement converged and/or hyper converged systems over the next 12 months? (Company size)
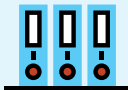
NETWORKWORLD
FROM IDG

Converged Infrastructure Becomes General IT Solution

		Executive IT	IT Management	IT Professional
Start off with a single application, but with the goal of it becoming a general IT solution	43%	45%	36%	49%
General IT solution (entire data center implementation)	40%	39%	48%	34%
Single application (smaller scale implementation)	15%	14%	15%	14%
Other	2%	2%	–	3%

Q: What is your intended use for converged and/or hyperconverged infrastructure? Base: Has at least some plans to implement converged and/or hyper converged systems over the next 12 months
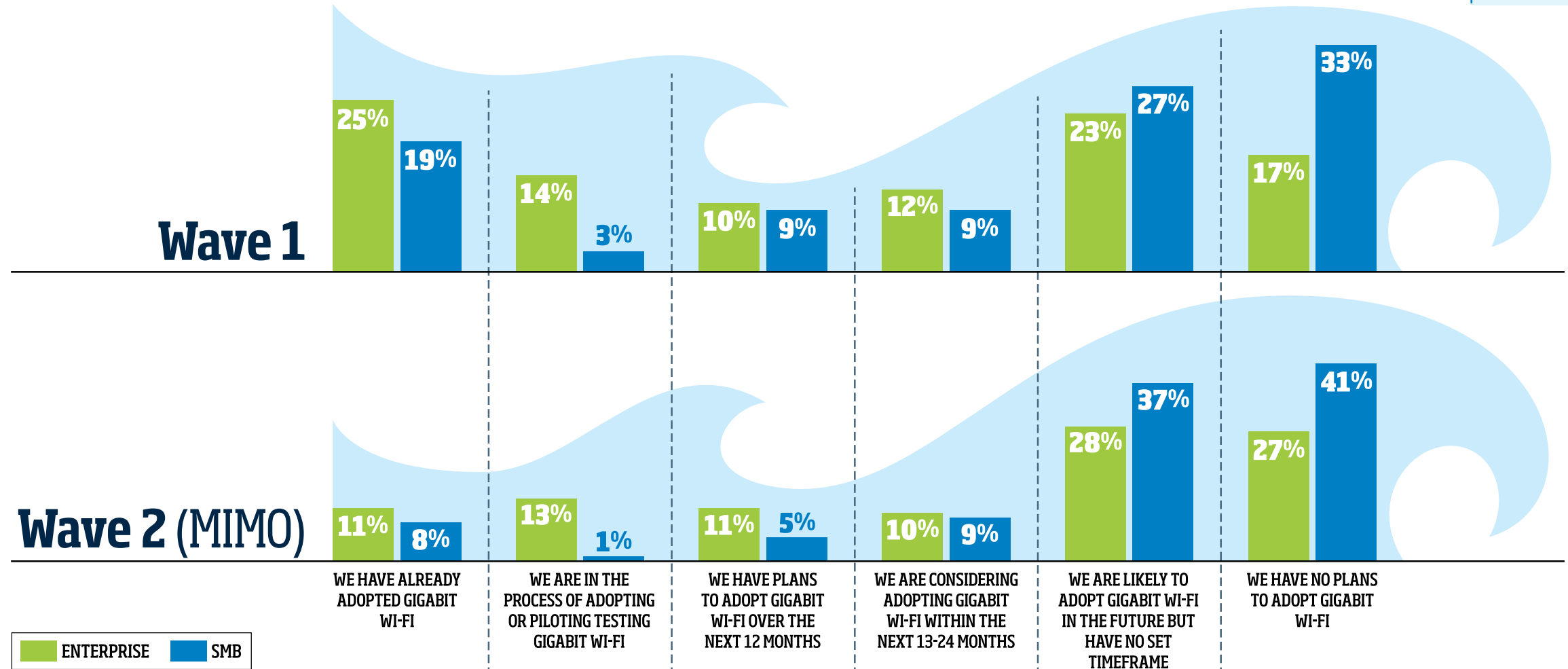
NETWORKWORLD
FROM IDG

TECHNOLOGY TRENDS:
Wi-Fi

NETWORKWORLD
FROM IDG

Adoption of Gigabit Wi-Fi Waves

Wave 1

	WE HAVE ALREADY ADOPTED GIGABIT WI-FI	WE ARE IN THE PROCESS OF ADOPTING OR PILOTING TESTING GIGABIT WI-FI	WE HAVE PLANS TO ADOPT GIGABIT WI-FI OVER THE NEXT 12 MONTHS	WE ARE CONSIDERING ADOPTING GIGABIT WI-FI WITHIN THE NEXT 13-24 MONTHS	WE ARE LIKELY TO ADOPT GIGABIT WI-FI IN THE FUTURE BUT HAVE NO SET TIMEFRAME	WE HAVE NO PLANS TO ADOPT GIGABIT WI-FI
ENTERPRISE	25%	14%	10%	12%	23%	17%
SMB	19%	3%	9%	9%	27%	33%

Wave 2 (MIMO)

	WE HAVE ALREADY ADOPTED GIGABIT WI-FI	WE ARE IN THE PROCESS OF ADOPTING OR PILOTING TESTING GIGABIT WI-FI	WE HAVE PLANS TO ADOPT GIGABIT WI-FI OVER THE NEXT 12 MONTHS	WE ARE CONSIDERING ADOPTING GIGABIT WI-FI WITHIN THE NEXT 13-24 MONTHS	WE ARE LIKELY TO ADOPT GIGABIT WI-FI IN THE FUTURE BUT HAVE NO SET TIMEFRAME	WE HAVE NO PLANS TO ADOPT GIGABIT WI-FI
ENTERPRISE	11%	13%	11%	10%	28%	27%
SMB	8%	1%	5%	9%	37%	41%

ENTERPRISE   SMB

Q. What are your organizations plans for adopting each wave of 802.11ac gigabit Wi-Fi technology?

NETWORKWORLD FROM IDG

Conclusion

The network team collaborates frequently with a diverse and key group of business departments, with IT Operations, Systems Administration & IT Security ranking high in daily/weekly meetings.

Speed, security and availability continue to be primary factors driving network technology investments.

Organizations expect their IT budgets dedicated to cloud, security and application development to increase over the next 12 months.

Employee awareness and cooperation, and protection against outsider threats are the top security challenges the network team is facing.
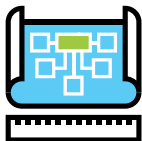
Emerging network technologies including SD-WAN, Converged Infrastructure and Wave 2 Gigabit Wi-Fi rank high on enterprise organizations future plans.

NETWORKWORLD
FROM IDG

Respondent Demographics

NETWORKWORLD
FROM IDG

Job Title

IT/Network Professionals — 20%

Executive IT/Network Executive — 55%

IT Management — 15%

Business Management — 9%

Other — 1%
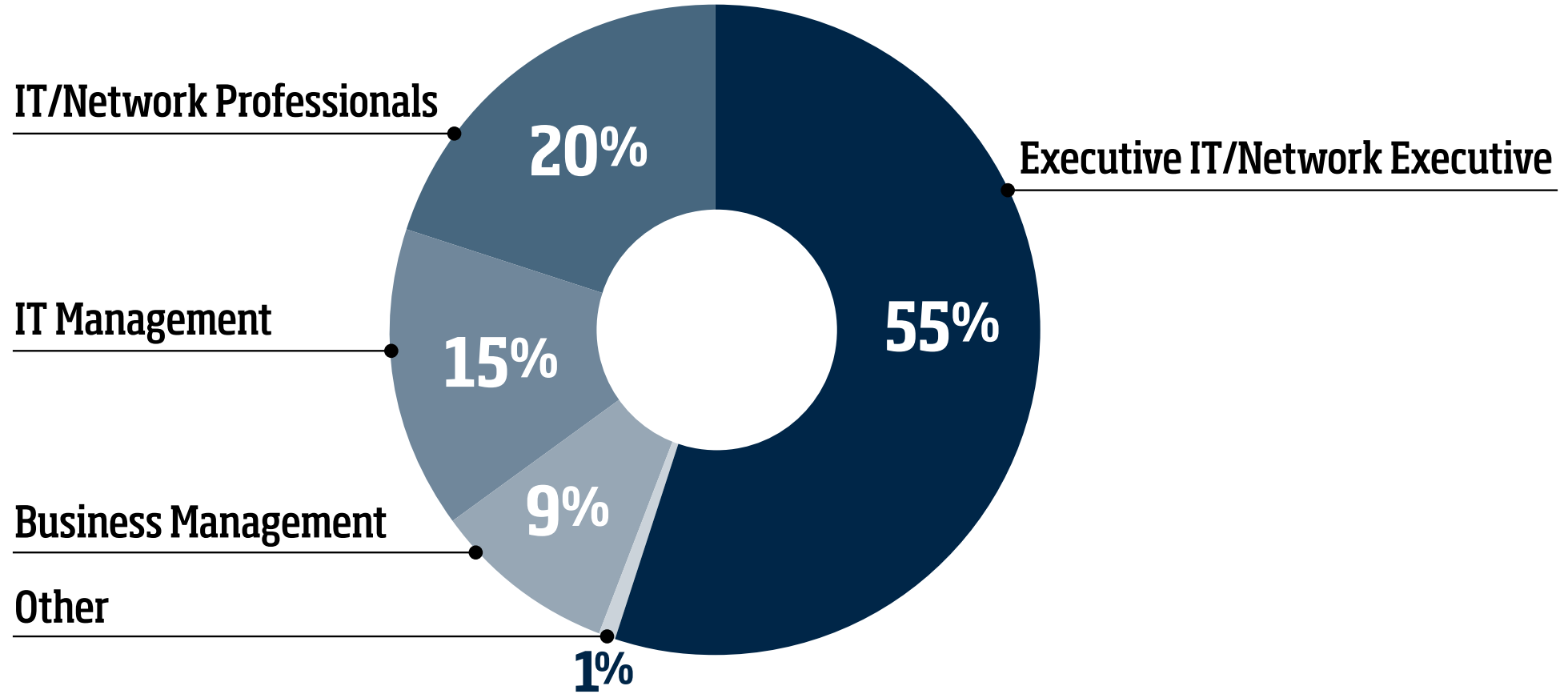
Q. Which of the following most closely describes your job title?

NETWORKWORLD
FROM IDG

Industry

Industry	Percentage
High Tech	17%
Education	11%
Government (state, local and federal)	11%
Financial Services (banking, insurance, brokerage)	11%
Manufacturing (inlcuding automotive, aerospace & defense, construction, engineering, chemical, metals & mining)	11%
Services (legal, consulting, real estate)	7%
Healthcare (providers and pharmaceuticals)	6%
Telecommunications & Utilities	6%
Advertising/Marketing/PR/Media	4%
Retail, Wholesale & Distribution	4%
Transportation	2%
Travel and Leisure	1%
Other	9%

Q. Which of the following best describes your organization's industry or function?

NETWORKWORLD
FROM IDG

Company Size

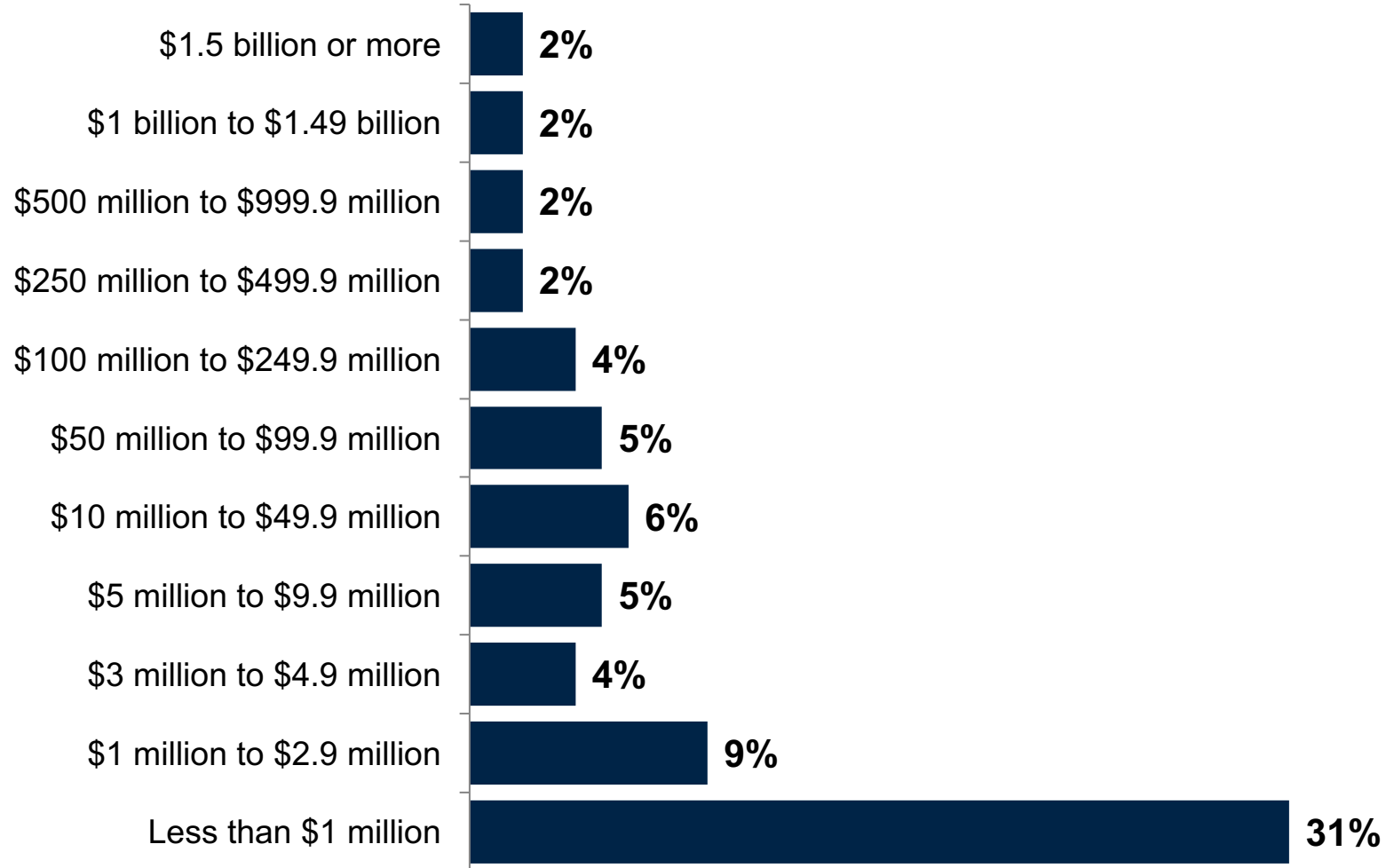| Company Size	Percentage
100,000 or more	6%
50,000 - 99,999	4%
30,000 - 49,999	3%
20,000 - 29,999	2%
10,000 - 19,999	6%
7,500 - 9,999	3%
5,000 - 7,499	7%
2,500 - 4,999	7%
1,000 - 2,499	10%
500 - 999	5%
100-499	19%
Less than 100	27%
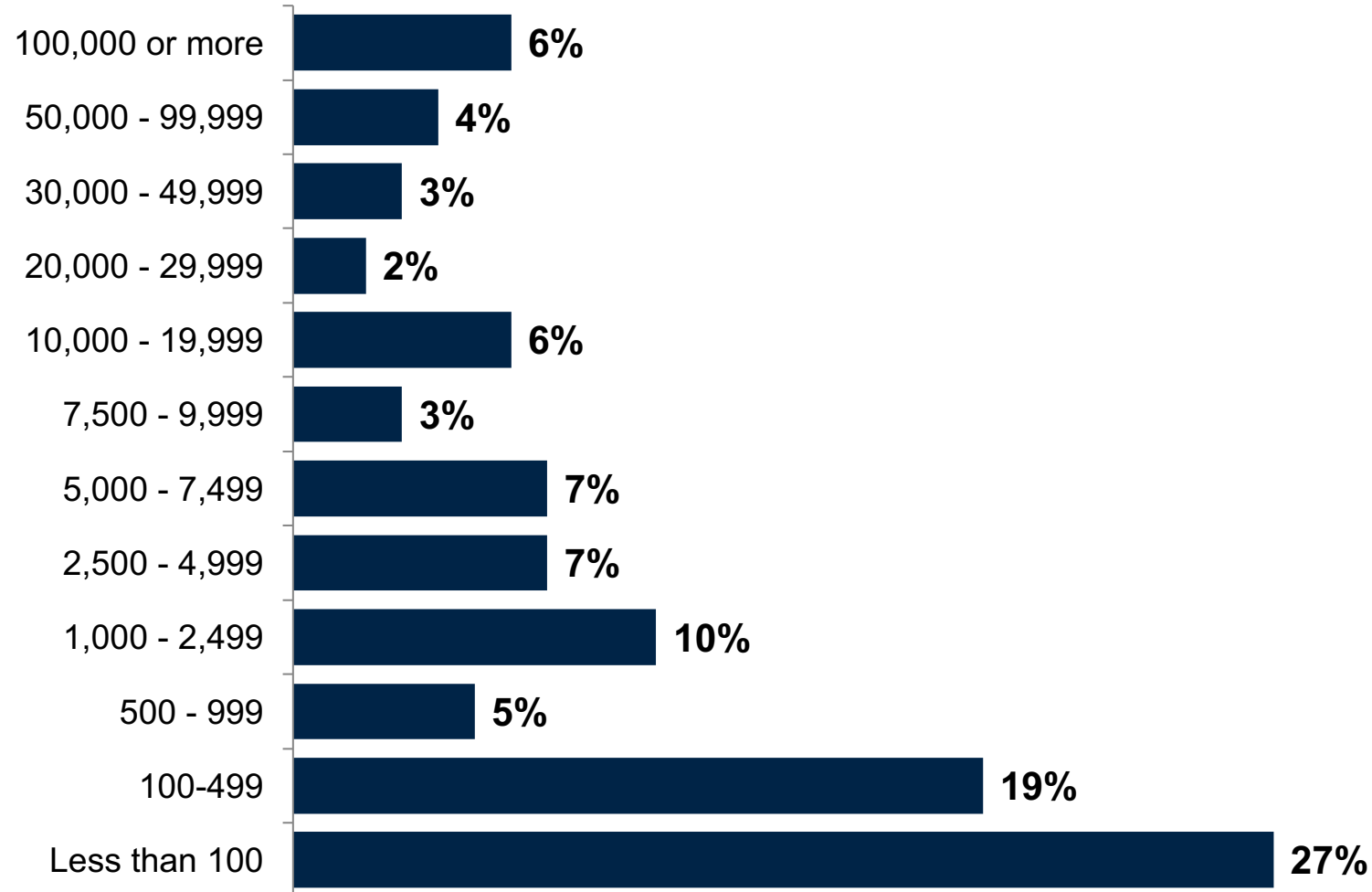
13,386
Average Company Size

Q. Approximately how many people are employed in your entire organization or enterprise?

Source: 2017 State of the Network Study, Network World

NETWORKWORLD FROM IDG

IT Budget

$1.5 billion or more — **2%**

$1 billion to $1.49 billion — **2%**

$500 million to $999.9 million — **2%**

$250 million to $499.9 million — **2%**

$100 million to $249.9 million — **4%**

$50 million to $99.9 million — **5%**

$10 million to $49.9 million — **6%**

$5 million to $9.9 million — **5%**

$3 million to $4.9 million — **4%**

$1 million to $2.9 million — **9%**

Less than $1 million — **31%**

$125m
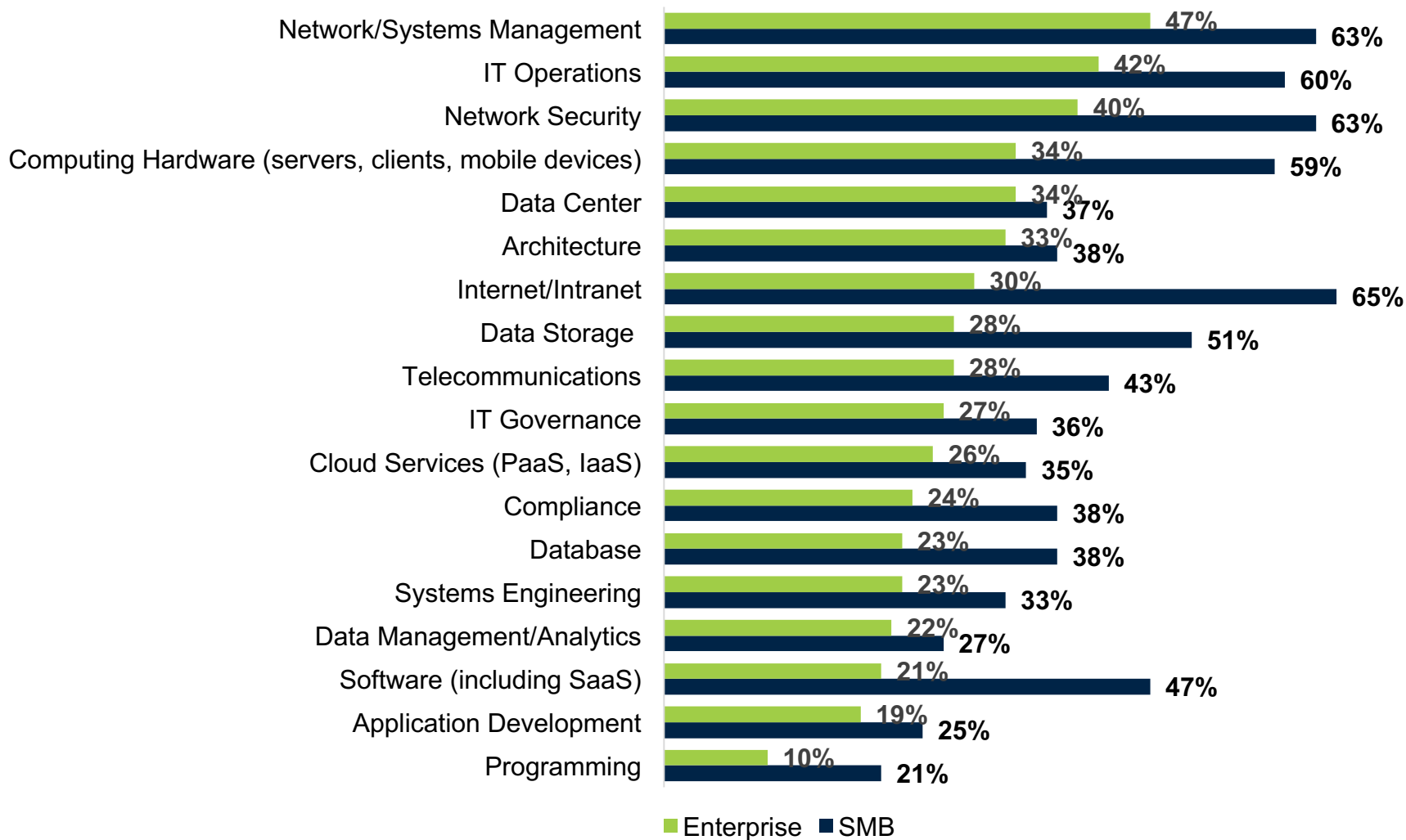Average
IT Budget

Q. Please select the dollar amount that best represents the annual gross sales or revenues for your organization or enterprise.

NETWORKWORLD
FROM IDG

Appendix

NETWORKWORLD
FROM IDG

Company Size Affects Primary Responsibilities

	Enterprise	SMB
Network/Systems Management	47%	63%
IT Operations	42%	60%
Network Security	40%	63%
Computing Hardware (servers, clients, mobile devices)	34%	59%
Data Center	34%	37%
Architecture	33%	38%
Internet/Intranet	30%	65%
Data Storage	28%	51%
Telecommunications	28%	43%
IT Governance	27%	36%
Cloud Services (PaaS, IaaS)	26%	35%
Compliance	24%	38%
Database	23%	38%
Systems Engineering	23%	33%
Data Management/Analytics	22%	27%
Software (including SaaS)	21%	47%
Application Development	19%	25%
Programming	10%	21%

Enterprise ■ SMB

On average, respondents have responsibility in 5 (Enterprise) or 7 (SMB) different tech areas

Q: In which of the following areas do you primarily have responsibility?

NETWORKWORLD
FROM IDG

Drivers Influence Budget Allocations

TOP PRIMARY DRIVERS

Improving Network Speed/Performance	**61%**
Improving Data Security	**55%**
Ensuring Availability (uptime)	**55%**
Ensuring Business Continuity	**51%**
Improving Business Process Efficiency	**42%**
Improving IT Process Efficiency	**35%**

AREAS EXPECTING A BUDGET INCREASE

Cloud Services (PaaS, Iaas)	**69%**
Network Security	**55%**
Application Development	**50%**
Data Management/Analytics	**43%**
Architecture	**40%**
Data Storage	**39%**

Q: Please indicate whether the percent of your organization's total IT budget dedicated to the following areas will increase, decrease or remain the same over the next 12 months.

NETWORKWORLD FROM IDG

Mix of Cloud & On Premise Network Security Solutions

100% in the Cloud
2016 **7%**
2017 **3%**

Hybrid Solution
(Mix of On Premises & Cloud)
2016 **49%**
2017 **58%**

100% On Premises
2016 **27%**
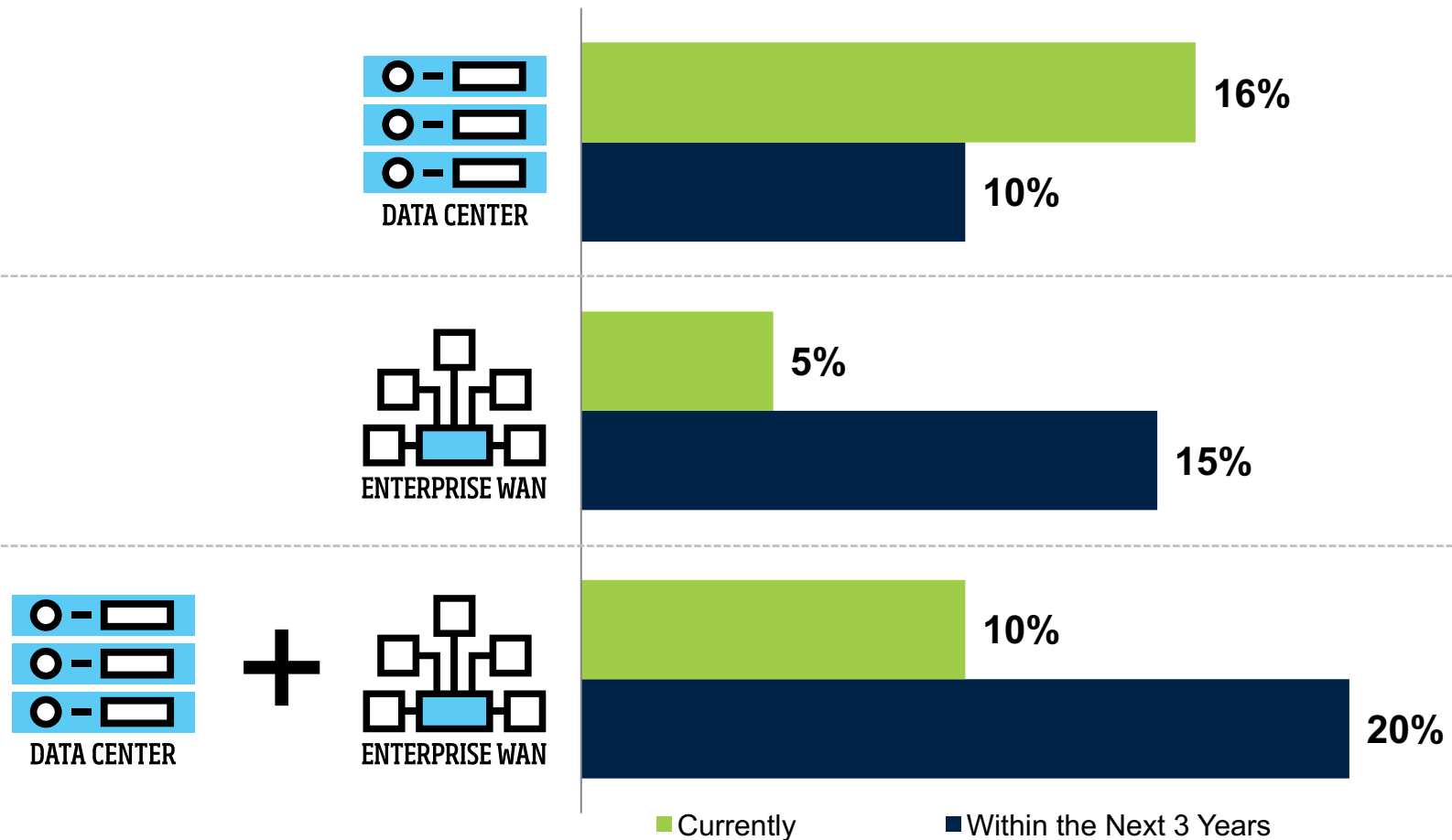2017 **27%**

Not Sure
2016 **18%**
2017 **13%**
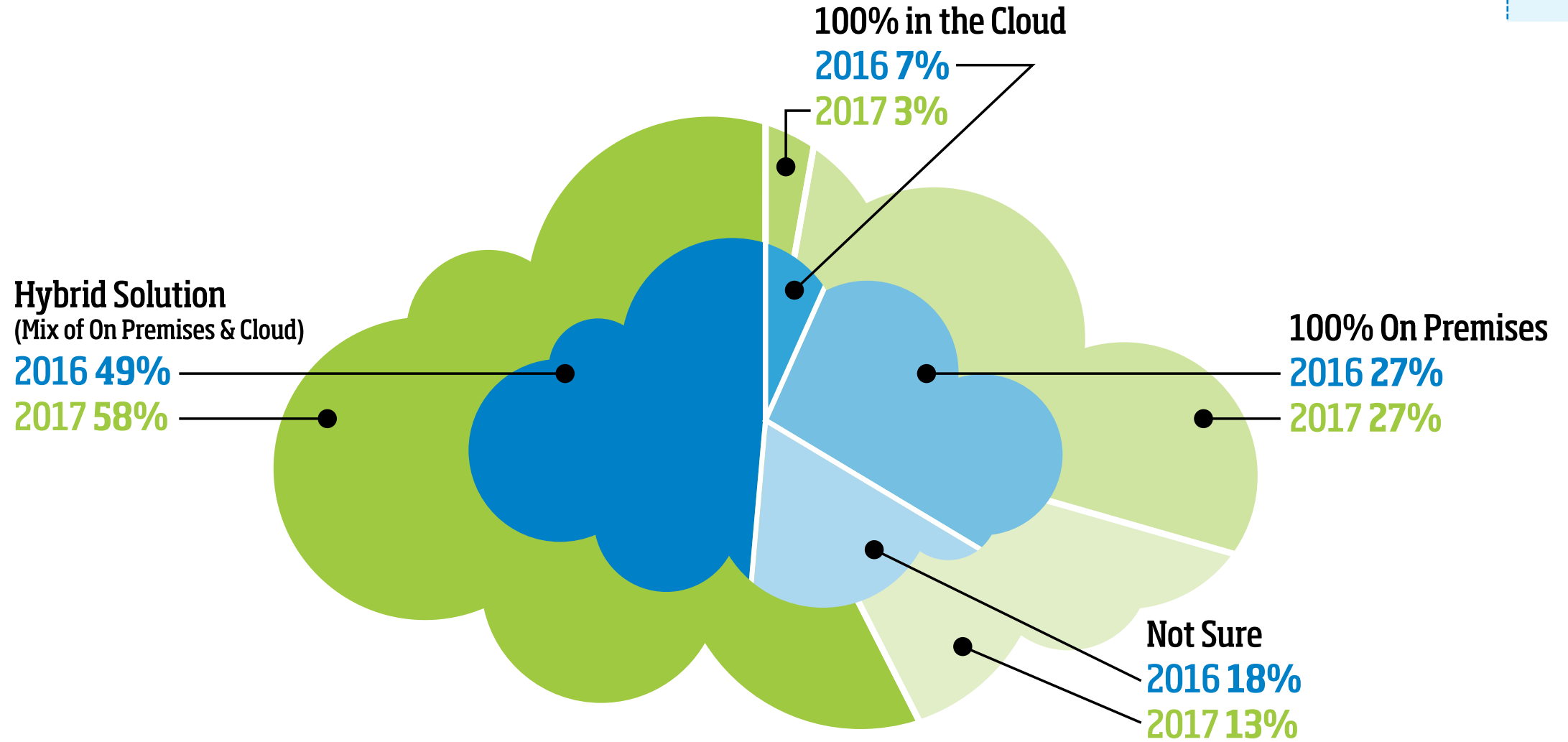
Q: How will your organization deploy network security solutions over the next 12 months?

SDN Implementation Shift in Coming Years

2016 Results

DATA CENTER

16%

10%

ENTERPRISE WAN

5%

15%

DATA CENTER + **ENTERPRISE WAN**

10%

20%

■ Currently   ■ Within the Next 3 Years

Enterprise Organizations

currently implement SDN primarily within the Data Center (**24%**), but will move towards both the Data Center and Enterprise WAN in the next 3 years (**26%**).

Q. Where are you currently implementing Software-Defined Networking and where do you expect to implement SDN within the next 3 years?