Government Business Council

Reaching the Edge of the Joint Information Environment

A Candid Survey of DoD Employees

October 2014

Purpose

The Department of Defense is pursuing an ambitious initiative to develop an integrated, enterprise-wide IT network, the Joint Information Environment (JIE). A significant benefit of this project is a vibrant mobility ecosystem, wherein DoD employees and warfighters alike can securely access and effectively utilize information flows wherever they are. Two years on, DoD faces a pivotal period for the JIE and its mobility strategy as its unclassified mobility program scales to the enterprise and planners work to define final technical standards. Recognizing the significance of the JIE and mobility for DoD, Government Business Council (GBC) and Verizon Wireless undertook an in-depth research study.

Methodology

To assess the perceptions, attitudes, and experiences of senior DoD employees regarding the JIE and mobility, GBC deployed a survey to a sample of *Defense One, Nextgov,* and *Government Executive* online and print subscribers in August 2014. The pool of 305 respondents includes those from each of the military service branches and the Office of the Secretary of Defense.

Table of Contents

1

Executive Summary

Executive Summary

The Joint Information Environment faces a long and bumpy road ahead

Senior DoD employees are not sold on the JIE's vision for a joint enterprise IT infrastructure. Though 71% identify benefits of the JIE, less than half (47%) believe it will increase mission effectiveness for their service/component. Respondents also identify significant challenges to implementing the JIE: more than three-fourths (77%) of respondents doubt that it will be completed by its FY 2018 deadline and nearly two-thirds (63%) identify incompatible service/component IT systems as a significant obstacle.

Expanded mobility would benefit DoD overall, especially on the battlefield

The vast majority (84%) of respondents identify benefits from mobility for their service/component, with 53% singling out remote data entry and access. Respondents are especially convinced of mobility's value on the battlefield: 77% indicate leveraging mobility at the tactical level is important to achieving mission.
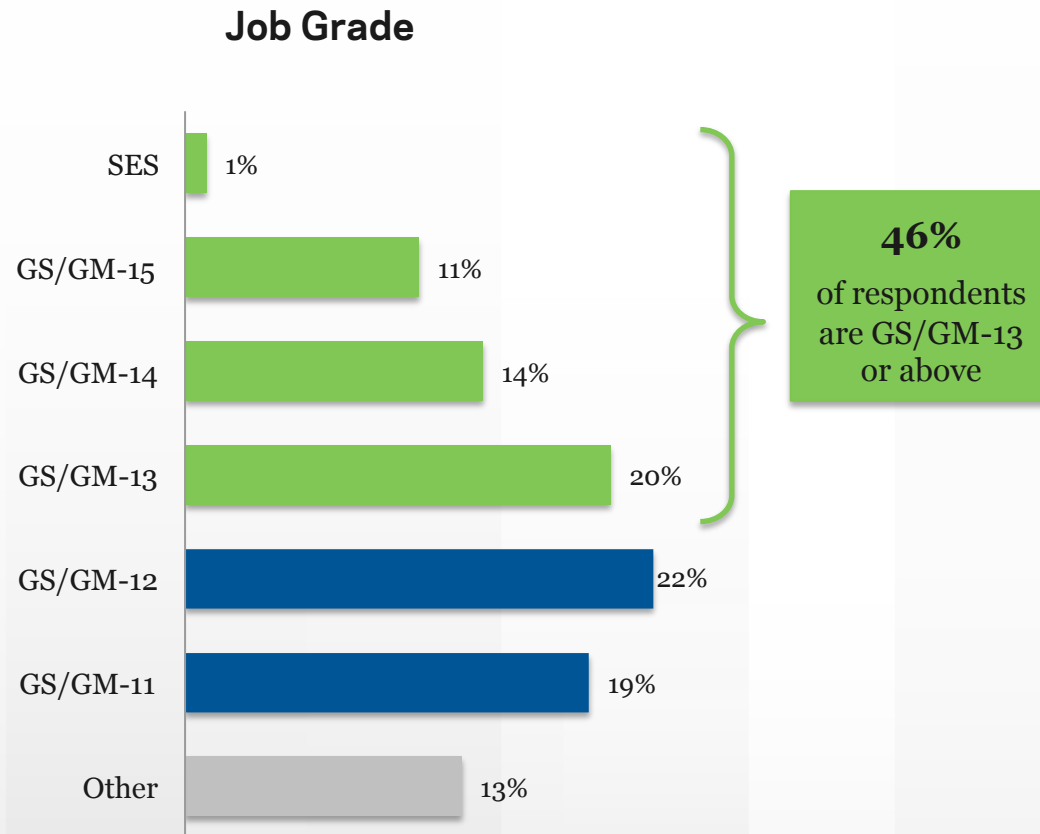
But fundamental challenges could limit expanded mobility services

To realize the benefits of mobility, DoD must address fundamental weaknesses. Majorities of respondents identify expanded wireless infrastructure (53%), integration with DoD information networks (52%), and user support (52%) as unclassified mobility elements in need of the most improvement. Majorities also highlight budget constraints (64%), compatibility with legacy IT infrastructure (58%), and security (54%) as significant challenges.

2

Respondent
Profile

Government
Business
Council

Survey Respondents are largely senior DoD leaders

Job Grade

Job Grade	Percentage
SES	1%
GS/GM-15	11%
GS/GM-14	14%
GS/GM-13	20%
GS/GM-12	22%
GS/GM-11	19%
Other	13%

46% of respondents are GS/GM-13 or above

Percentage of respondents, n=305

Government Business Council

Operations is the most common job function

Job Function

Job Function	Percentage
Operations	24%
Acquisition and procurement	17%
Human capital	12%
Engineering	11%
Finance	8%
Legislative	4%
Information technology	4%
Facilities, fleet, and real estate management	2%
Communications	2%
Other	16%

"Other" includes auditing and educational functions

Percentage of respondents, n=305

Government Business Council
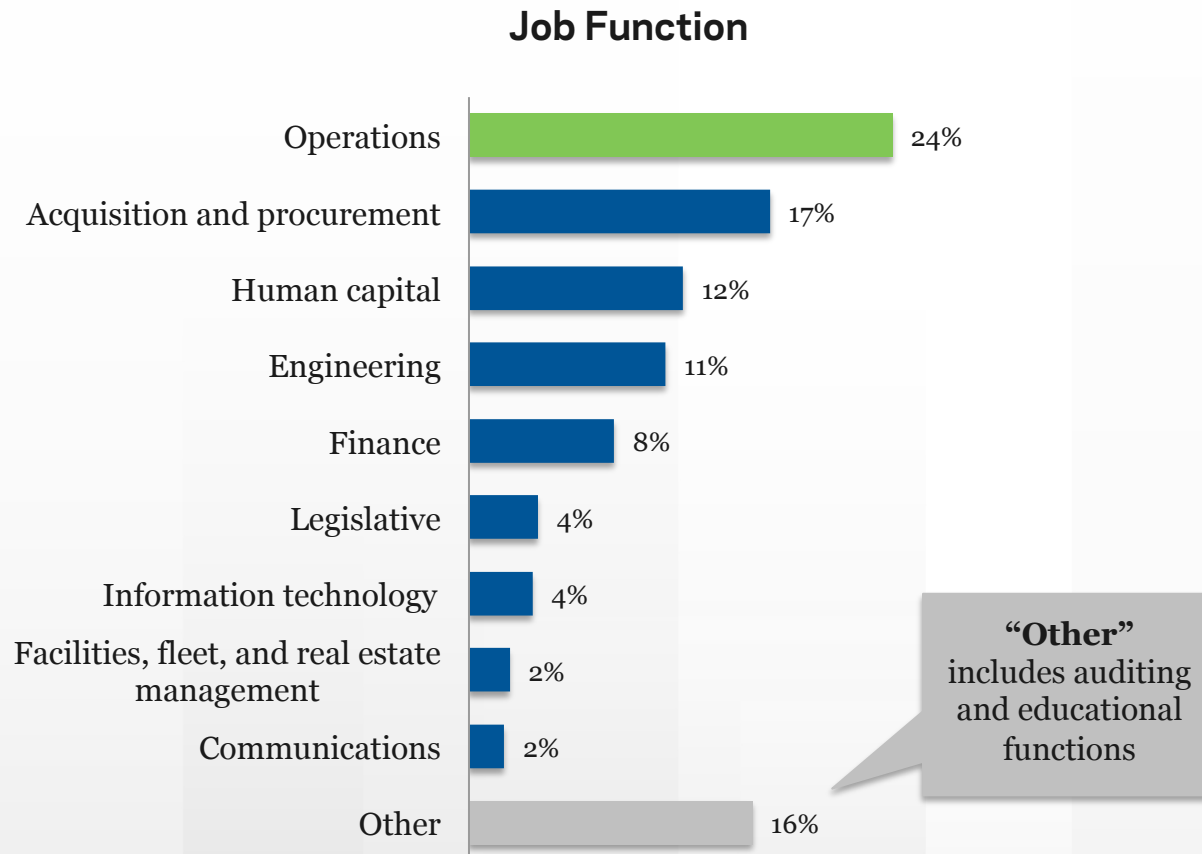
3

Research Findings

i.

The Joint Information Environment

Government
Business
Council

Building a DoD-wide information environment

The Joint Information Environment (JIE) is a vision for DoD IT modernization that consolidates and standardizes networks across the Department. In January 2013, Chairman of the Joint Chiefs of Staff General Martin Dempsey wrote the Joint Information Environment White Paper, which states that integrating IT networks is essential for fielding a future Joint Force capable of executing globally integrated operations.

In September 2013, DoD released a strategy for implementing the JIE by the end of FY 2018. The JIE constitutes a combination of the following technical characteristics:
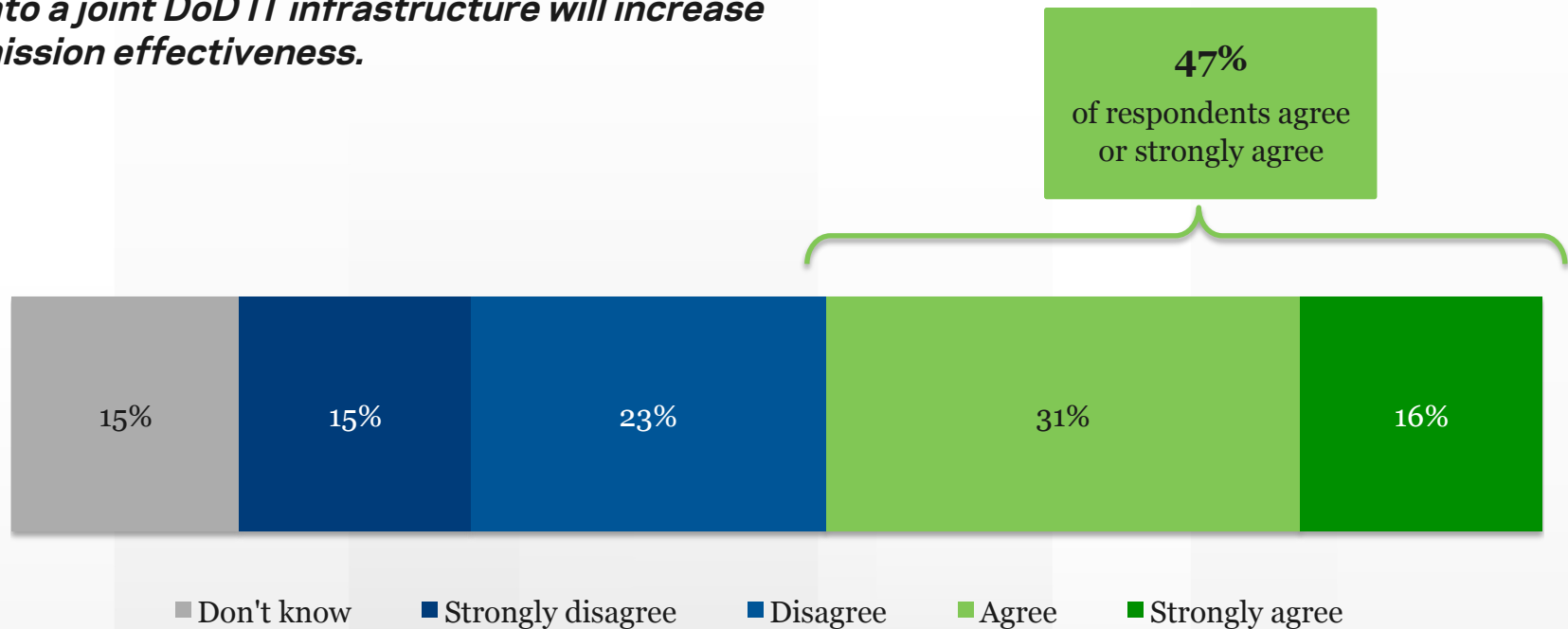
▶ Network normalization (i.e., integrating and consolidating networks)

▶ Data center consolidation (i.e., transitioning to joint data centers)

▶ Single security architecture (i.e., integrating and consolidating security controls)

▶ Enterprise services (e.g., email, collaboration tools, messaging)

▶ Identity and access management (i.e., enterprise-wide user authentication)

▶ Cloud computing (i.e., virtualizing hardware and software)

▶ Mobility services (i.e., leveraging enterprise mobile devices and applications

Sources: Joint Information Environment White Paper, Joint Chiefs of Staff, 2013; The Department of Defense Strategy for Implementing the Joint Information Environment, DoD, 2013.

DoD executives are not fully convinced that the JIE will increase mission effectiveness
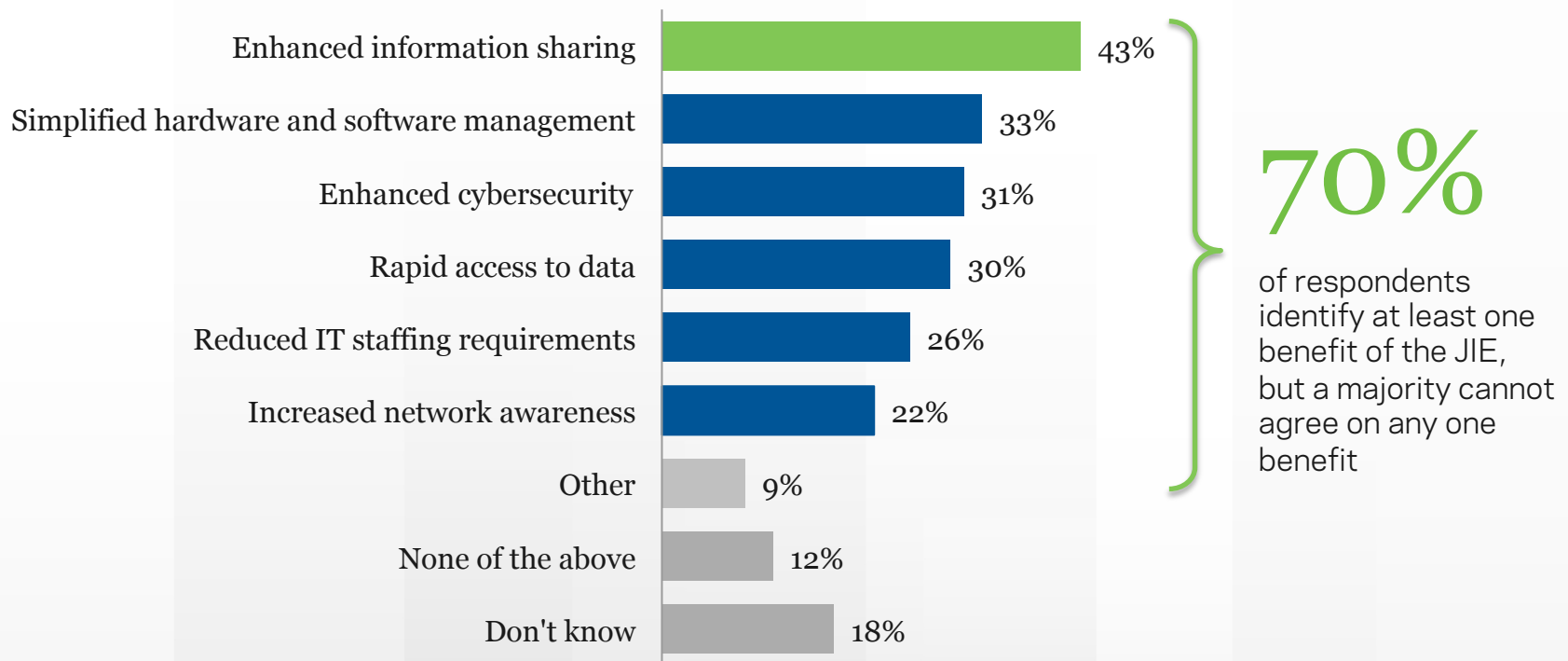
Consolidating service/component-specific IT systems into a joint DoD IT infrastructure will increase mission effectiveness.

47%
of respondents agree
or strongly agree

15%	15%	23%	31%	16%

- ■ Don't know
- ■ Strongly disagree
- ■ Disagree
- ■ Agree
- ■ Strongly agree

Percentage of respondents, n=305

But many indicate the JIE will yield benefits, including enhanced information sharing

Benefits of the JIE

Benefit	Percentage
Enhanced information sharing	43%
Simplified hardware and software management	33%
Enhanced cybersecurity	31%
Rapid access to data	30%
Reduced IT staffing requirements	26%
Increased network awareness	22%
Other	9%
None of the above	12%
Don't know	18%

70%
of respondents identify at least one benefit of the JIE, but a majority cannot agree on any one benefit
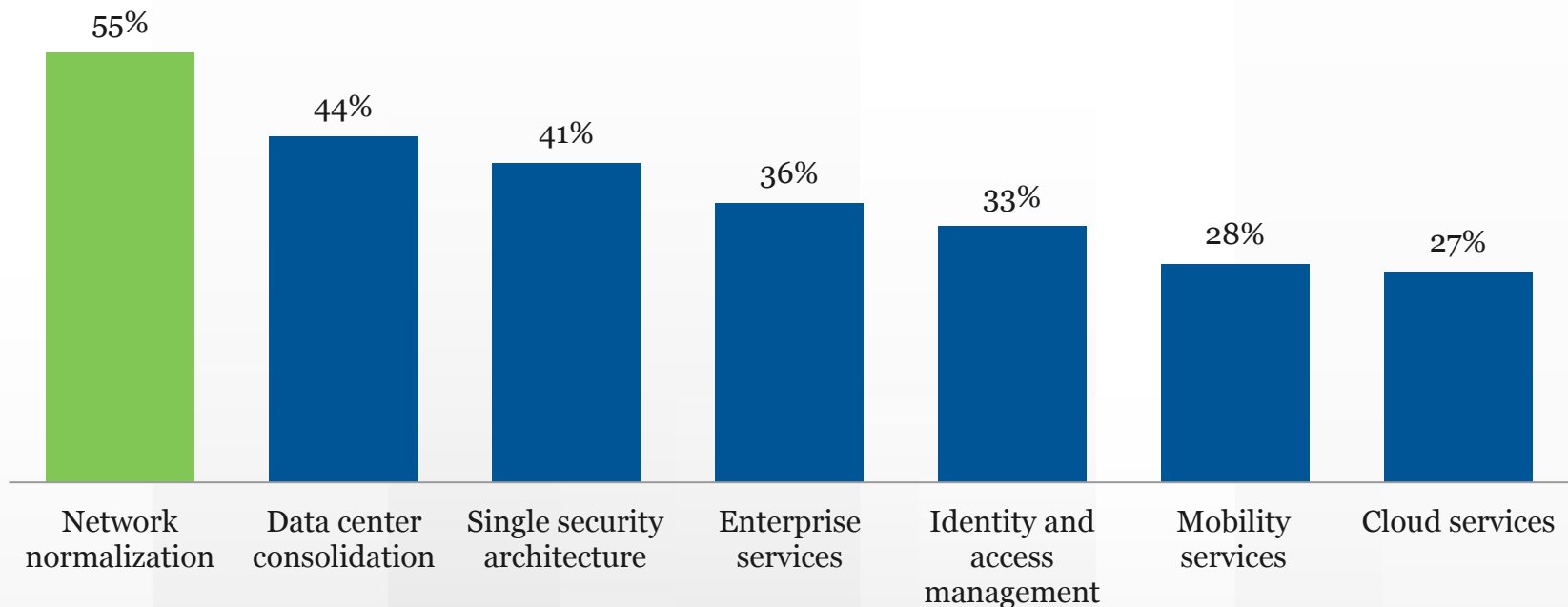
Percentage of respondents, n=304
Respondents were asked to select all that apply

Network normalization is expected to be the most challenging JIE element to implement

For your service/component, which JIE elements will prove most challenging to achieve?

Element	Percentage
Network normalization	55%
Data center consolidation	44%
Single security architecture	41%
Enterprise services	36%
Identity and access management	33%
Mobility services	28%
Cloud services	27%

Percentage of respondents, n=304
Respondents were asked to select all that apply

Most DoD executives doubt that the JIE will be implemented before FY 2018 deadline

How confident are you in DoD's ability to complete the JIE by FY 2018?

Very confident 2%

Don't know 10%

Confident 11%

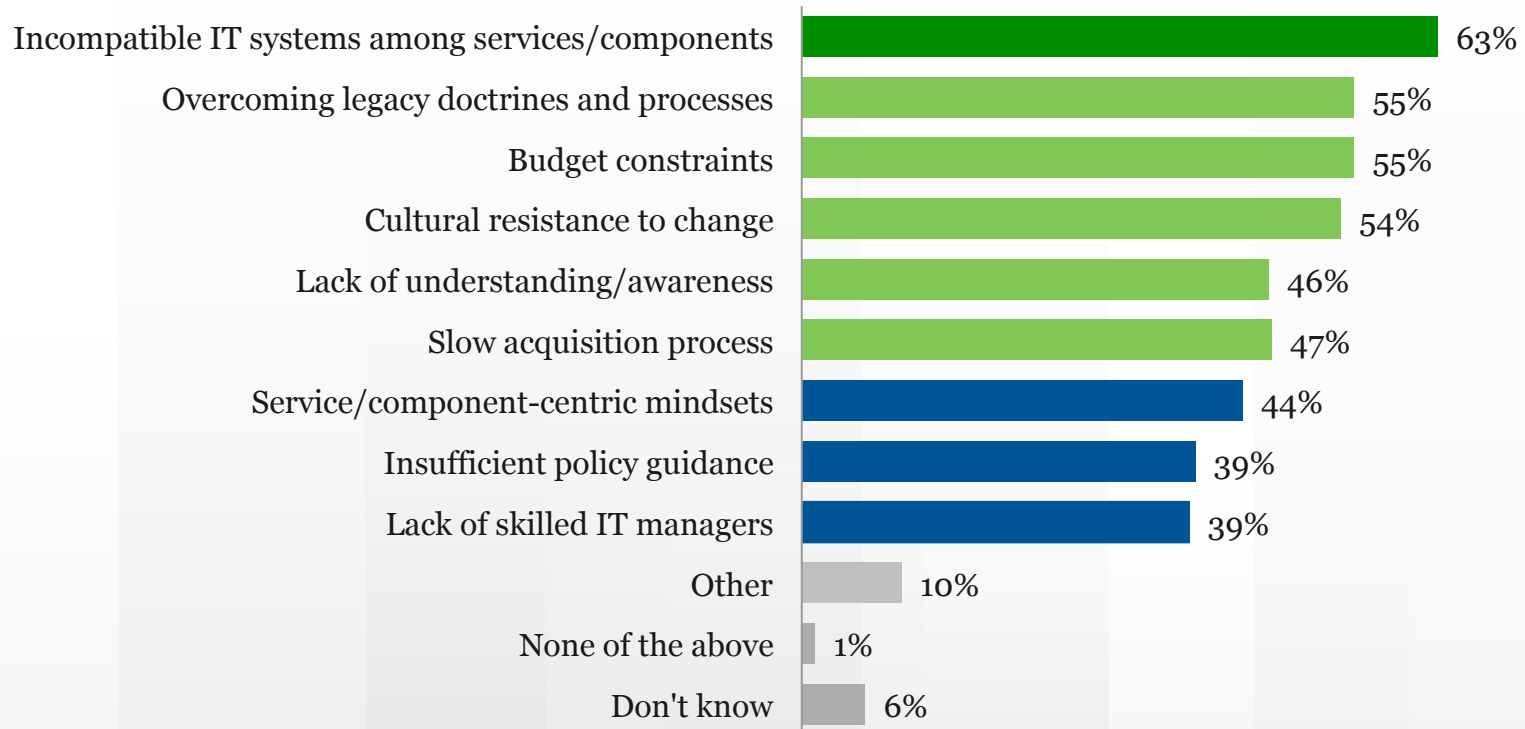**Not at all confident** 45%

Slightly confident 32%
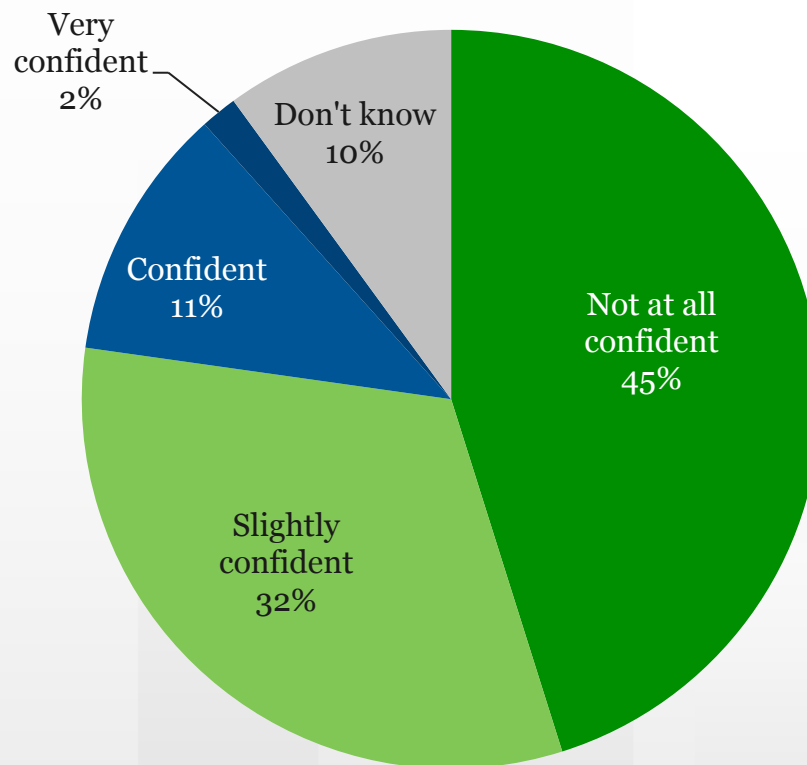
77%

of respondents are slightly or not at all confident in DoD's ability to complete the JIE by FY 2018, the initiative's deadline.

Percentage of respondents, n=305

Incompatibility among services, components tops list of challenges to JIE implementation

Challenges to Achieving the JIE

Challenge	Percentage
Incompatible IT systems among services/components	63%
Overcoming legacy doctrines and processes	55%
Budget constraints	55%
Cultural resistance to change	54%
Lack of understanding/awareness	46%
Slow acquisition process	47%
Service/component-centric mindsets	44%
Insufficient policy guidance	39%
Lack of skilled IT managers	39%
Other	10%
None of the above	1%
Don't know	6%

Percentage of respondents, n=305
Respondents were asked to select all that apply

Respondents reveal a lack of confidence in the JIE implementation

" The JIE promises capability improvements and cost reductions through centralization. However, I've never seen a centralization effort that attained the target efficiencies and effectiveness. "

" I would love for this to work, but I'm not optimistic it will. "

Sample of open-ended responses

ii.

The Impact of Mobility

Government
Business
Council

Mobility – "the primary benefit of the JIE"

The JIE vision embraces mobile devices as an essential element of DoD's future enterprise information network. Defense Information Systems Agency (DISA), the agency charged with taking the lead on JIE technical matters, points to mobility as "the primary benefit of JIE" in its 2014-2019 Strategic Plan.
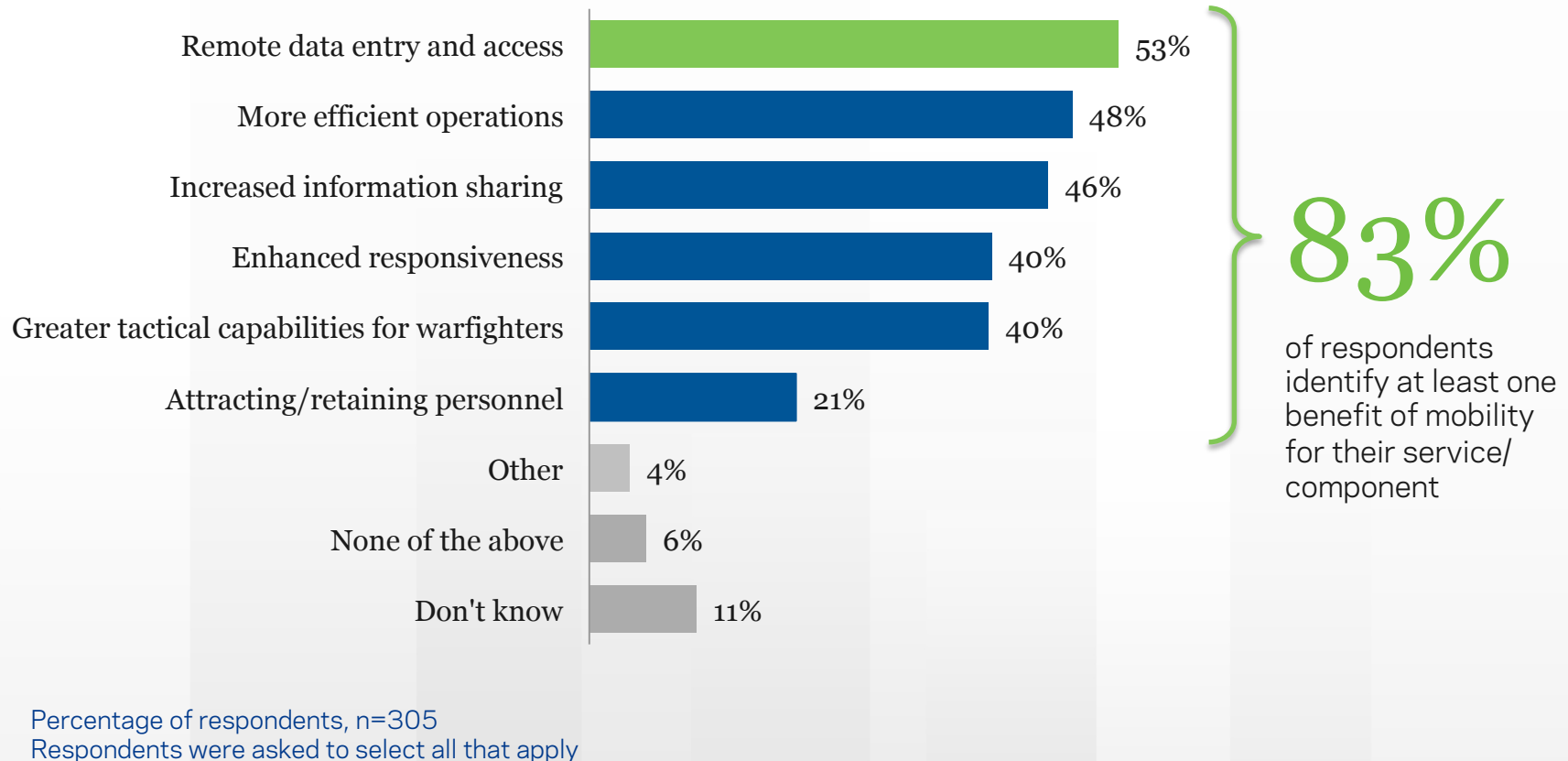
In FY 2014, DoD made significant headway building its mobility ecosystem. DISA rolled out a mobile device management (MDM) system, a mobile application store, an expanded approved devices list as part of its initial enterprise unclassified mobility capability, and expanded classified mobility pilot programs. However, DoD has struggled to scale its mobility program to planned levels and mobile device policies still differ significantly among service branches.
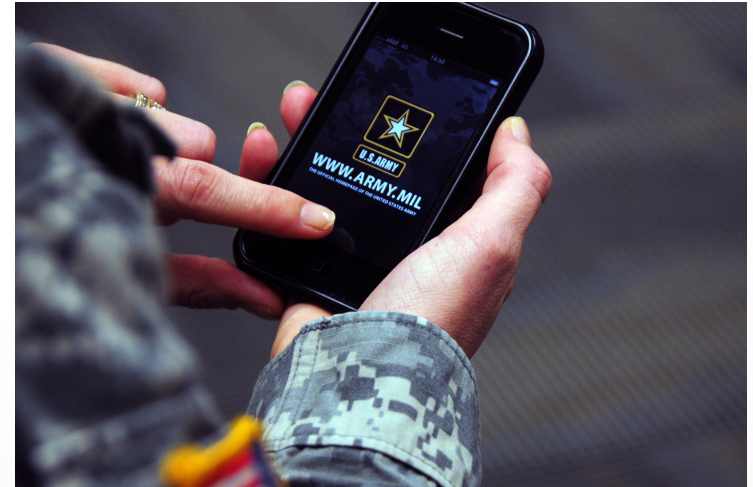
Remote data entry and access are seen as the top mobility benefit

Benefits of Mobility

Benefit	Percentage
Remote data entry and access	53%
More efficient operations	48%
Increased information sharing	46%
Enhanced responsiveness	40%
Greater tactical capabilities for warfighters	40%
Attracting/retaining personnel	21%
Other	4%
None of the above	6%
Don't know	11%

83% of respondents identify at least one benefit of mobility for their service/component

Percentage of respondents, n=305
Respondents were asked to select all that apply

Leveraging mobility at the tactical level is deemed important to achieve mission

How important is the ability to leverage mobility at the tactical level to achieve mission?

Not important
2%

Slightly important
5%
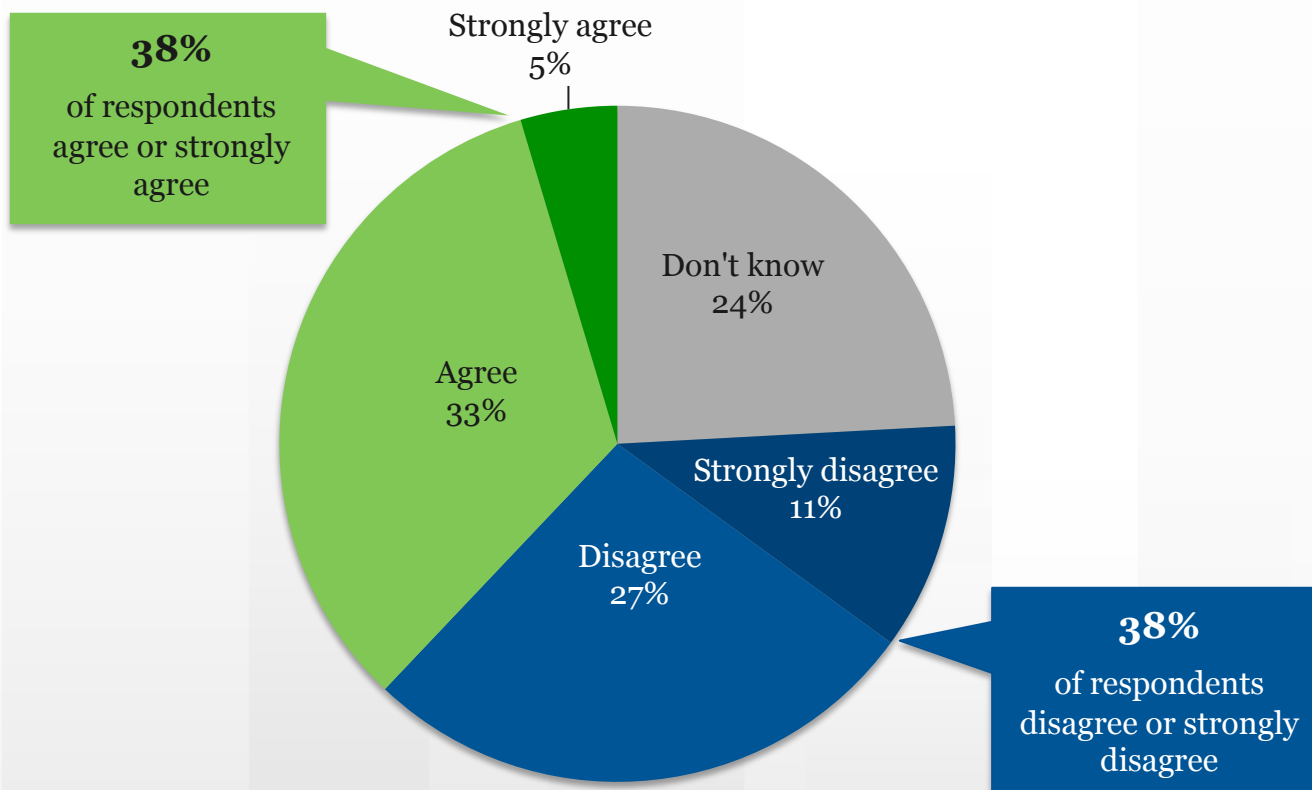
Don't know
16%

Very important
44%
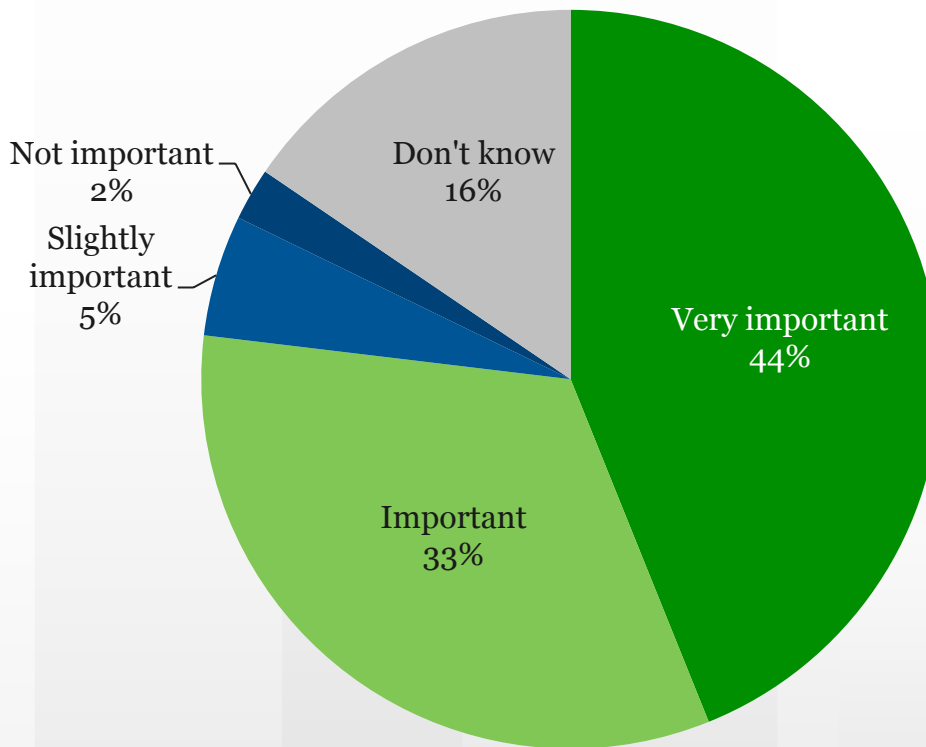
Important
33%

77%

of respondents indicate leveraging mobility at the tactical level is important or very important to achieving mission

Percentage of respondents, n=303

Mobility's effect on decision-making structures is unclear

Expanded mobility services would result in a more decentralized decision-making structure in my service/component.
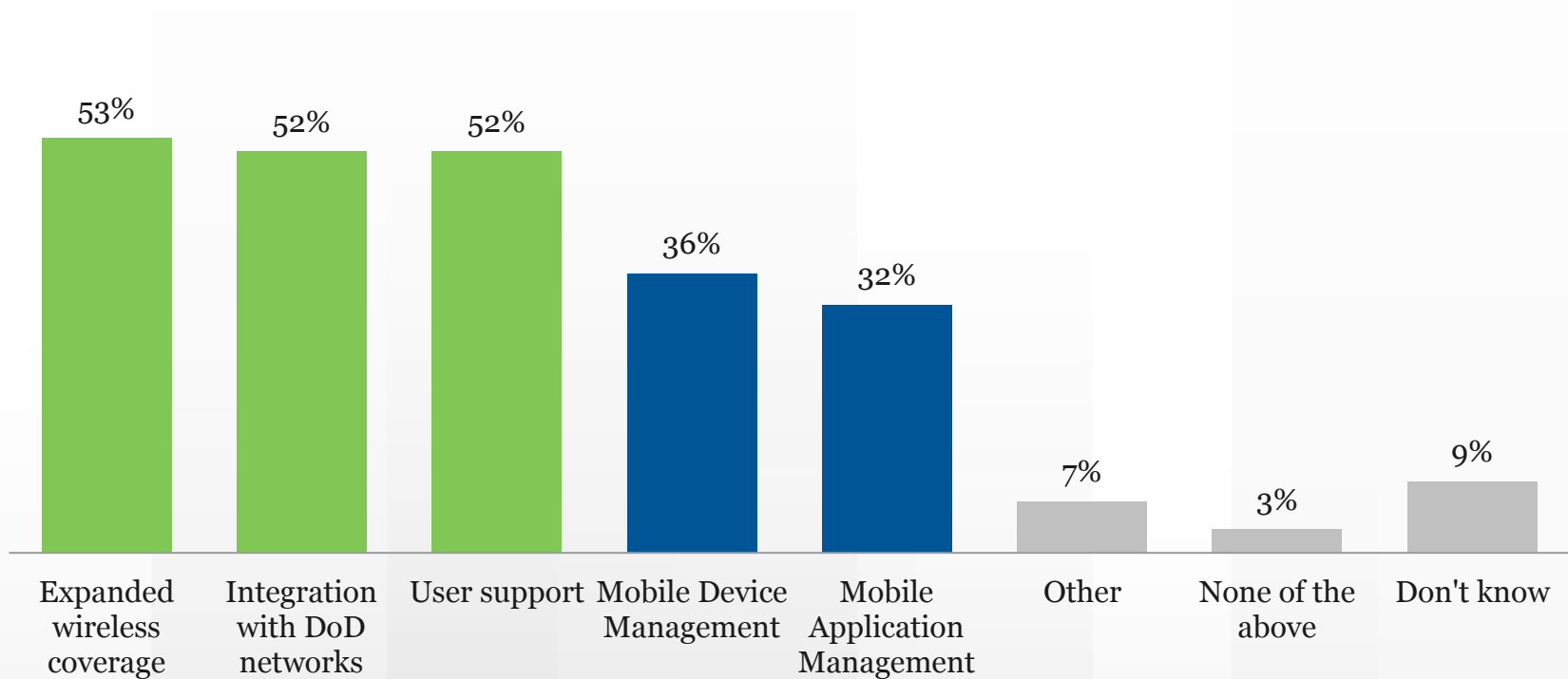

38%
of respondents agree or strongly agree

Strongly agree
5%

Don't know
24%

Agree
33%

Strongly disagree
11%

Disagree
27%

38%
of respondents disagree or strongly disagree

Percentage of respondents, n=305

iii.

Obstacles to Expanding Mobility

Coverage, integration, and user support are the mobility elements most in need of improvement
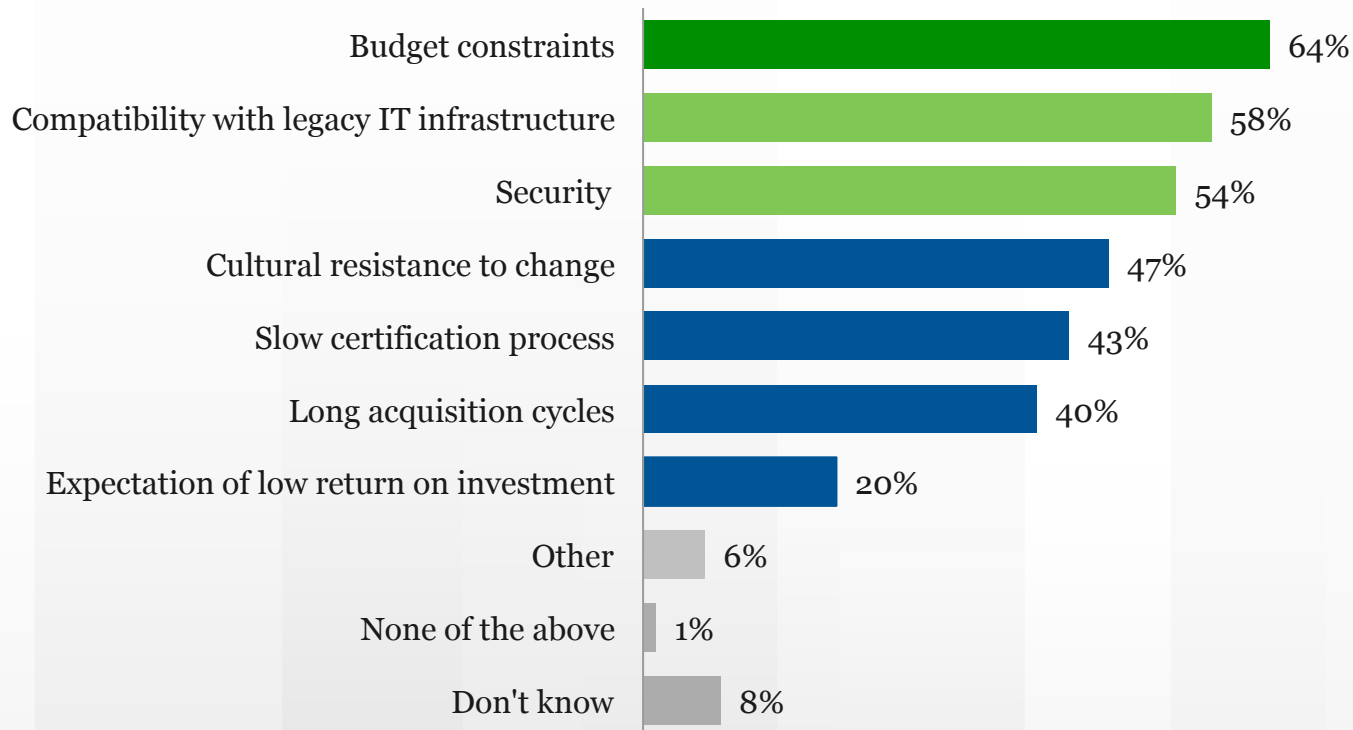
Which unclassified mobility elements do you feel need the most improvement?

Category	Percentage
Expanded wireless coverage	53%
Integration with DoD networks	52%
User support	52%
Mobile Device Management	36%
Mobile Application Management	32%
Other	7%
None of the above	3%
Don't know	9%

Percentage of respondents, n=304
Respondents were asked to select all that apply

Budget, compatibility with legacy systems, and security are the top challenges to mobility
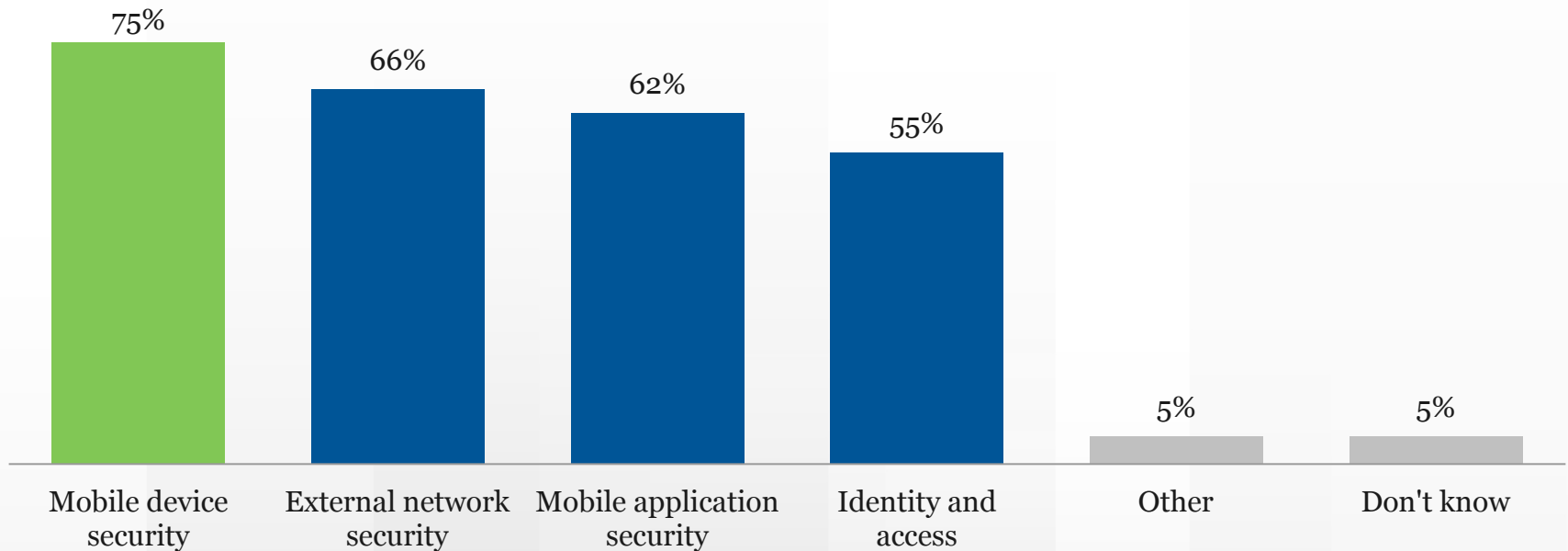
Challenges to Fully Leveraging Mobility Services

Challenge	Percentage
Budget constraints	64%
Compatibility with legacy IT infrastructure	58%
Security	54%
Cultural resistance to change	47%
Slow certification process	43%
Long acquisition cycles	40%
Expectation of low return on investment	20%
Other	6%
None of the above	1%
Don't know	8%

Percentage of respondents, n=304
Respondents were asked to select all that apply

Of security elements, mobile device security is the most worrying concern for DoD executives

Which aspects of mobile security pose significant challenges to leveraging mobility for your service/component?

Mobile device security	75%
External network security	66%
Mobile application security	62%
Identity and access	55%
Other	5%
Don't know	5%

Percentage of respondents, n=143
Only those respondents selecting "security" as a challenge to leveraging mobility were asked this question

4

Final
Considerations

As DoD looks to the future of its information networks and mobility services...

Sustained leadership is needed to overcome differences among services and components

DoD leaders have identified the JIE as a critical component of the future Joint Force, but they face an uphill battle against entrenched differences among services and components. Senior DoD employees remain unconvinced that consolidating service/component-specific systems will increase mission effectiveness, see their service and component IT systems as incompatible, and doubt the JIE will be completed by its deadline. Convincing the DoD workforce to get onboard with the shift to a joint enterprise future demands determined and sustained attention.

Basic enterprise IT infrastructure should be developed to move mobility services forward

As DoD looks scale its unclassified mobility services to the enterprise, the Department can make the largest positive impact by improving basic IT infrastructure elements. Respondents indicate that expanding wireless coverage, integration with DoD networks, and user support would most improve mobility services.

The effect on traditional workforce structures needs to be better understood

Expanding mobility services promises to enhance DoD mission effectiveness, but it may also have unforeseen effects on the DoD workforce. For example, increasing access to and control of information for troops in-theater may upset the traditionally rigid, hierarchical chain of command. Survey respondents were divided on the question of decentralized decision-making, indicating further research on this topic is needed.

Underwritten by

About Verizon

Verizon Communications Inc. (NYSE, Nasdaq: VZ), headquartered in New York, is a global leader in delivering broadband and other wireless and wireline communications services to consumer, business, government and wholesale customers. Verizon Wireless operates America's most reliable wireless network, with more than 103 million retail connections nationwide. Verizon also provides converged communications, information and entertainment services over America's most advanced fiber-optic network, and delivers integrated business solutions to customers in more than 150 countries. A Dow 30 company with more than $120 billion in 2013 revenues, Verizon employs a diverse workforce of 176,900. For more information, visit www.verizon.com.

About GBC

Contact

Our Mission

Zoe Grotophorst
Manager
Research & Strategic Insights
Government Business Council

Tel. 202.266.7335
zgrotophorst@govexec.com

govexec.com/GBC
@GovBizCouncil

Government Business Council (GBC), the research arm of Government Executive Media Group, is dedicated to advancing the business of government through analysis and insight. GBC partners with industry to share best practices with top government decision-makers, understanding the deep value inherent in industry's experience engaging and supporting federal agencies.

Government Business Council

Government Business Council

Underwritten by:

verizon

Reaching the Edge of the Joint Information Environment

A Candid Survey of DoD Employees

September 2014

Government Executive Media Group