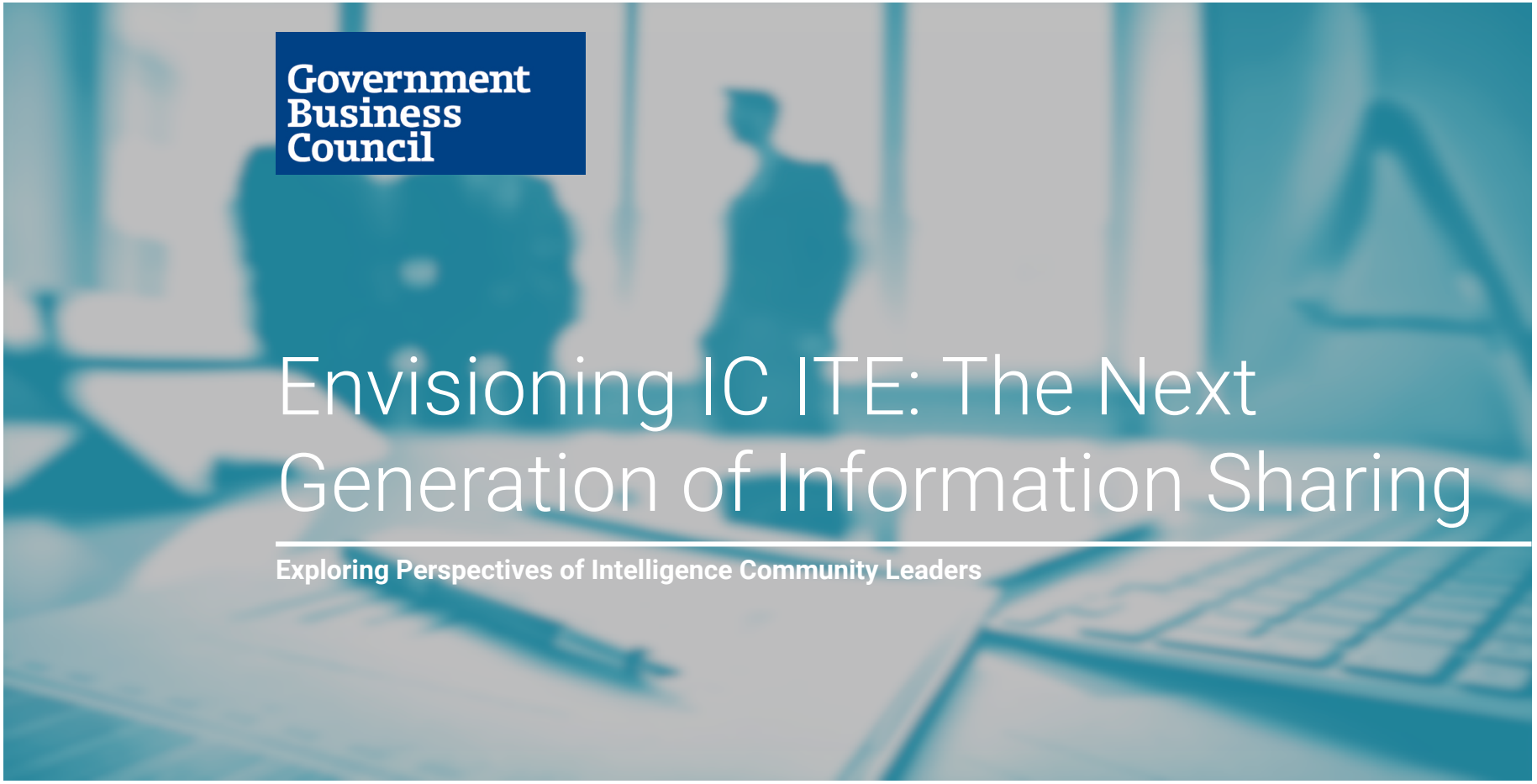

Government Business Council

Envisioning IC ITE: The Next Generation of Information Sharing

Exploring Perspectives of Intelligence Community Leaders

Underwritten by

HARRIS®

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Overview

Purpose

It's 2016, and the U.S. Intelligence Community (IC) is seeking to unlock greater levels of effectiveness by implementing the IC Information Technology Enterprise (IC ITE), a common platform dedicated to enhancing integration, information sharing processes, and security across agencies. In order to learn more about the current state of the intelligence environment, Government Business Council (GBC), Harris, and the Intelligence National Security Alliance (INSA) surveyed government leaders from the intelligence community.

Methodology

Government Business Council, Harris, and the Intelligence National Security Alliance (INSA) released a survey on April 12, 2016 to a select group of IC leaders. 103 employees completed the survey, including those at the GS/GM 11-15 grade levels and members of the Senior Executive Service. Respondents include representatives from more than 10 federal civilian and defense agencies.

“We spend most of our time looking for a needle in a haystack. IC ITE reduces chaos, reduces the amount of time our analysts have to hunt for data – the data will be able to find itself. It doesn’t take humans out of the loop, but it will make it easier for them to derive conclusions and serve those to policymakers.

Beth Flanagan

IC ITE Mission Lead for the National Geospatial-Intelligence Agency (NGA)

Remarks given at *Defense One* and INSA’s “IC ITE: Progress, Challenges & Opportunities” event, April 26, 2016.

Executive Summary

Inefficient information sharing processes hinder agency effectiveness

A large majority of respondents feel that their agency's overall effectiveness is impeded by inefficient information sharing processes. IC leaders also lack confidence in the security of these processes – many respondents indicate that they are not very or not at all satisfied with their organization's ability to securely share information within the IC and with external entities such as non-IC federal agencies, state and local organizations, foreign partners, and the private sector.

Agencies face a host of challenges in implementing IC ITE

IC agencies are confronted with a range of challenges in their quest to adopt IC ITE. While respondents identify technical barriers such as incompatible technology and systems and migrating legacy systems to the cloud, they also highlight structural and bureaucratic obstacles such as federal "red tape," budget constraints, security concerns, and cultural resistance to change. Furthermore, while industry partners could ideally help smooth the transition to IC ITE, many surveyed leaders express dissatisfaction and uncertainty with the level of support their organization receives from IT vendors as well as the level of effort vendors make to understand agency objectives.

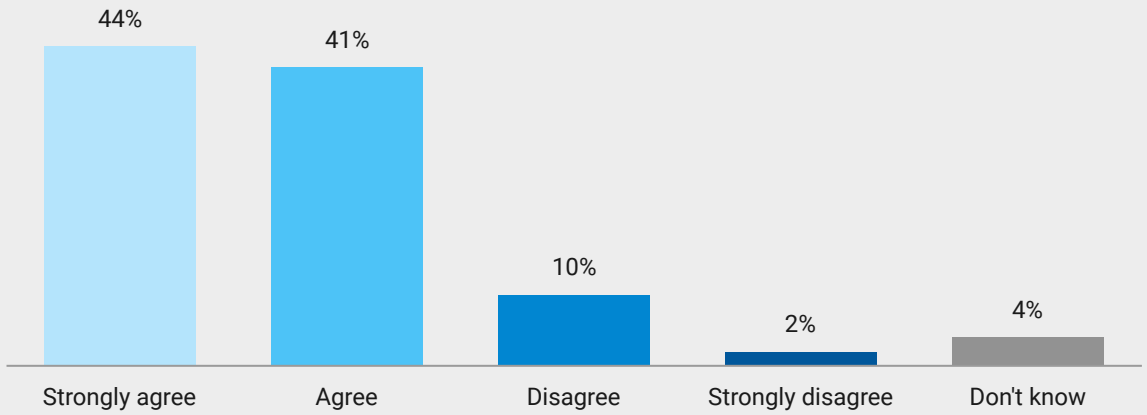
IC leaders expect positive outcomes from IC ITE

Respondents are largely optimistic about IC ITE's potential impact on the IC. A majority expect IC ITE adoption to increase both internal and external cyber/information security, operational efficiency, cost-effectiveness, interagency collaboration, and information sharing/access. Moreover, despite a host of implementation obstacles, respondents remain confident in IC ITE's progress: a majority believe that the new platform could become an operational reality within the next ten years.

Current State of Information Sharing

Most IC leaders feel that their organization is impeded by inefficient information sharing processes

To what extent do you agree or disagree with the following statement: "Inefficient information sharing processes limit my organization's overall effectiveness."



Percentage of respondents, n=103
Note: Percentages may not add up to 100% due to rounding

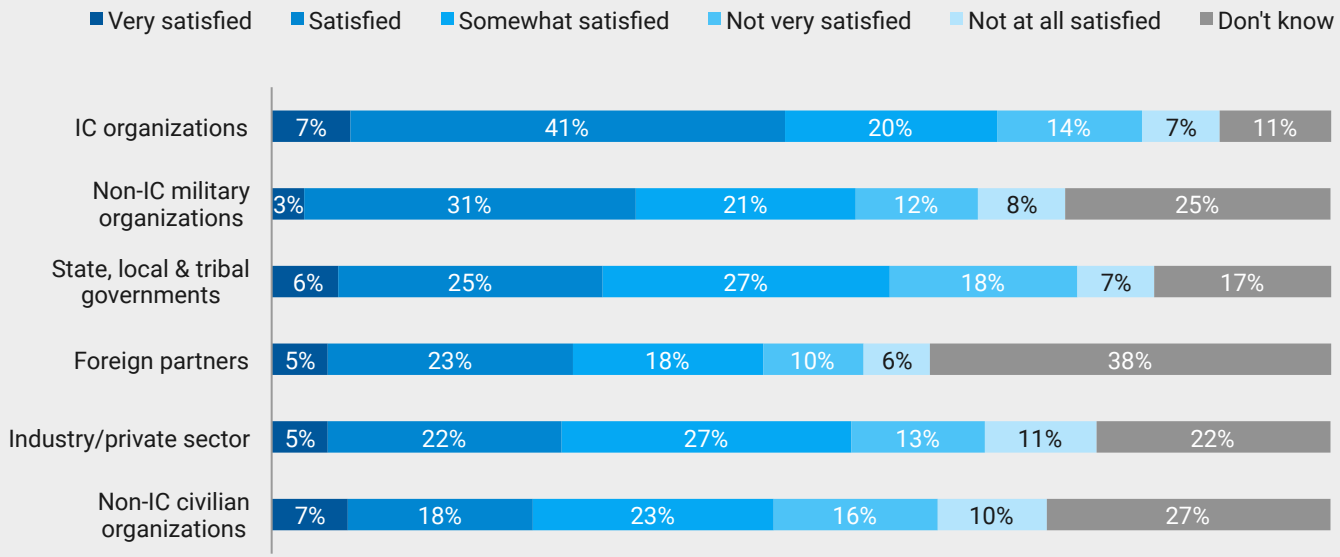
"Today, data is so tightly wound to a certain agency or system that you have to know exactly where it is in order to find it. IC ITE democratizes that data – integrated data allows us to ask different questions and glean insights in a way that stove-piped data doesn't, which is key to making us more powerful moving forward.

Beth Flanagan, NGA IC ITE Mission Lead

85%
of respondents agree or strongly agree that inefficient information sharing processes hinder agency effectiveness.

Respondents lack confidence in the security of their agency's information sharing processes / Current State of Information Sharing

Please indicate how satisfied you are with your organization's ability to securely share information with the following entities:



Percentage of respondents, n varies, 95-97
Note: Percentages may not add up to 100% due to rounding

IC leaders have mixed feelings about the security of their agency's information sharing processes. While a slight plurality express confidence, a substantial number of respondents indicate that they are not very or not at all satisfied with their organization's ability to securely share information with non-IC military organizations (20%); state, local, and tribal governments (25%); foreign partners (16%); industry/private sector (24%); and non-IC civilian organizations (26%).

In addition, while respondents indicate relatively higher confidence in their organization's ability to share information with other IC organizations, less than half of respondents (48%) indicate that they are satisfied or very satisfied.

Envisioning IC ITE

While IC ITE adoption is still in its early stages, IC leaders anticipate positive outcomes

Launched in August 2013, the IC Information Technology Enterprise (IC ITE) marks the largest IT overhaul in the history of the U.S. Intelligence Community. Conceived as a common, standards-based IT environment across intelligence agencies, IC ITE seeks to achieve three overarching goals[1]:

- Enhance the IC's ability to integrate and unify intelligence activities
- Safeguard both information and privacy through a trusted, collaborative environment
- Employ common practices to deliver, adopt, and maintain shared services and capabilities across the IC

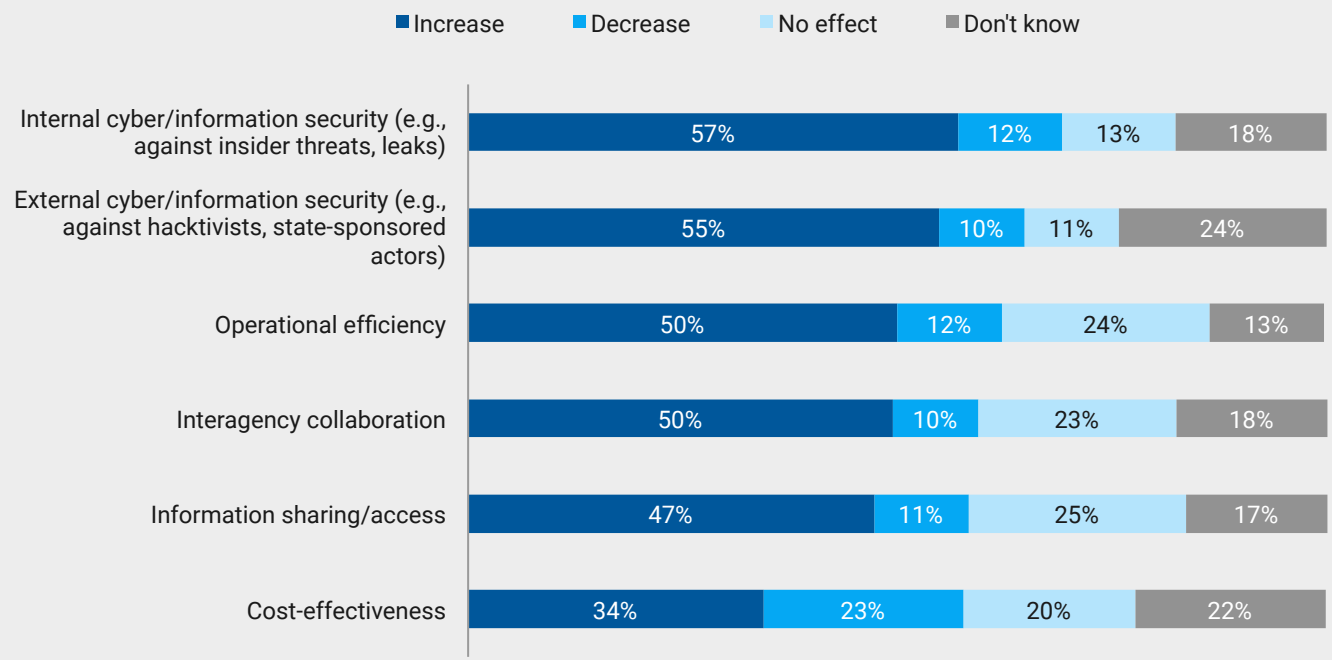
Intelligence agencies are currently moving to develop and adopt core IC ITE components: a security coordination service, an enterprise management capability, a joint cloud environment, and other integral IT services. However, they face a host of challenges in their path toward completing the transition.

> "IC ITE will integrate our community…and in that integration, it truly is the case that the whole is greater than the sum of the parts. It will make us more agile and better prepared to meet a spectrum of threats.
>
> **Stephanie O'Sullivan**
> Principal Deputy Director of National Intelligence (PDDNI)

1. "Office of the Director of National Intelligence: IC ITE Strategy 2016-2020."

IC leaders expect IC ITE to boost agency effectiveness / Envisioning IC ITE

Please indicate whether you expect IC ITE adoption to increase, decrease, or have no effect on the following:



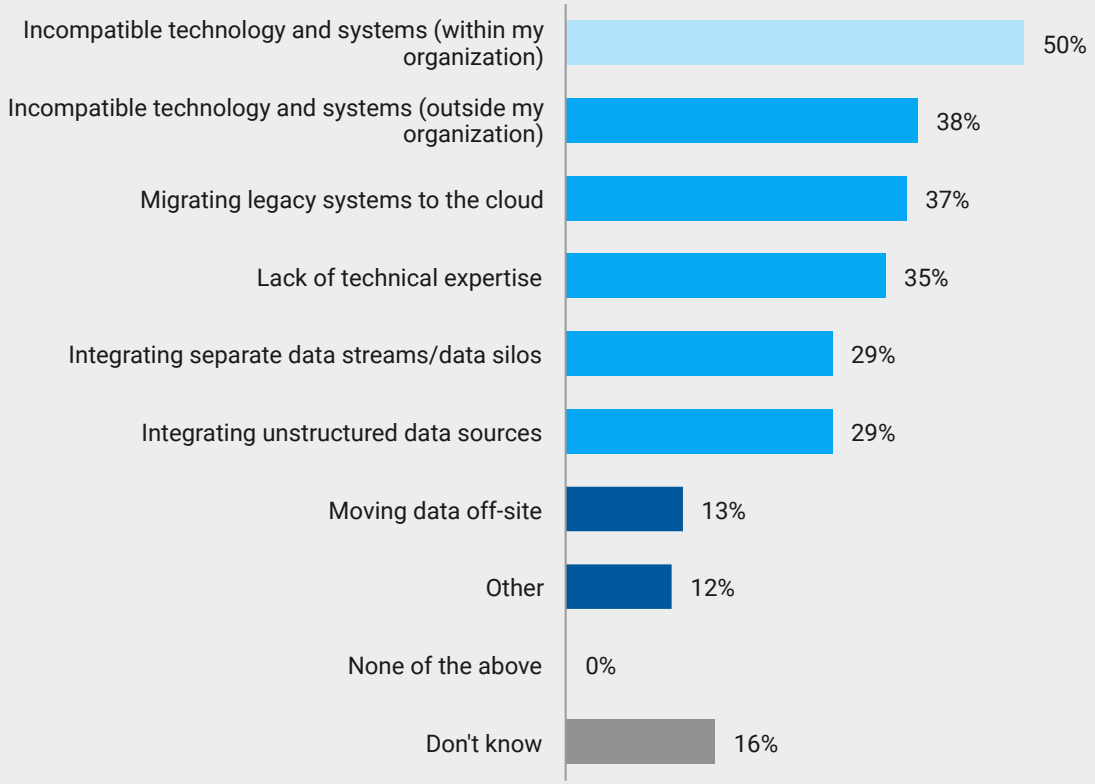
Percentage of respondents, n varies, 90-91
Note: Percentages may not add up to 100% due to rounding

A majority of surveyed IC leaders anticipate that IC ITE will increase internal cyber/information security (69%), external cyber/information security (65%), operational efficiency (62%), interagency collaboration (60%), and information sharing/access (58%), and cost-effectiveness (57%).

69%
of respondents expect IC ITE to increase internal cyber/ information security.

Agencies face various technical barriers to IC ITE implementation / Envisioning IC ITE

Technical Challenges to IC ITE Adoption

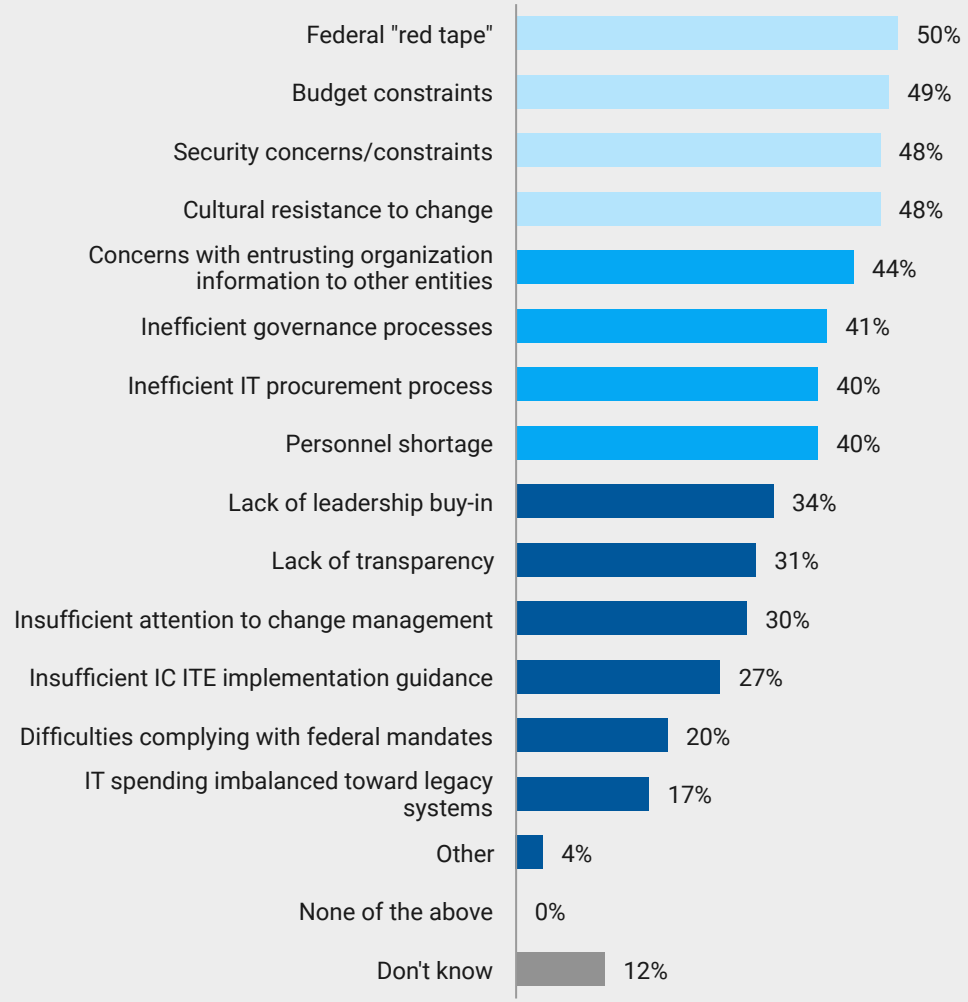


Percentage of respondents, n=86
Respondents were asked to select all that apply

When asked to identify technical barriers to IC ITE implementation, respondents most commonly highlight incompatible technology and systems both within (50%) and outside of (38%) their organization. Other commonly-cited challenges include migrating legacy systems to the cloud (37%) and lack of technical expertise (35%). In addition, one survey respondent opines that his agency hires too many IT vendors, suggesting difficulties communicating goals and priorities to disparate groups.

50%
of respondents cite incompatible technology/ systems within their organization as a chief technical barrier.

Non-Technical Challenges to IC ITE Adoption



Percentage of respondents, n=86
Respondents were asked to select all that apply

50%

of respondents cite federal “red tape” as a barrier to IC ITE implementation.

Security coordination service ranked the most difficult IC ITE component to implement / Envisioning IC ITE

IC ITE Services: Adoption Challenge

Ranked by respondents according to the implementation challenge they pose to the IC

Ranked by Borda count, n=75

IC ITE involves the development and deployment of numerous IT components; however, these services present various agencies with various adoption hurdles.

When asked to rank IC ITE services based on the implementation difficulty they pose to the IC, most respondents select adoption of a security coordination service as the top IT challenge, followed by network requirements/engineering services and identification, authentication, and authorization capabilities. Implementation of an applications mall is ranked least challenging.

Respondents were asked: "Please rank the following IT services according to the implementation challenge you believe they pose to the intelligence community."

Rankings and total scores are displayed here using the Borda count method, where each answer choice earns points based on the order in which respondents placed them. Each respondent's top answer choice receives the maximum score of n points for that respondent, where n is equal to the total number of options. Each subsequent choice receives 1 less point than the one ranked ahead of it. Unranked answer choices receive zero points. Please see Appendix for further detail.

IC cloud adoption is not yet an agency priority / Envisioning IC ITE

The adoption of cloud computing services is one of the linchpins of IC ITE, and IC member agencies have begun transitioning to the new joint cloud environment.

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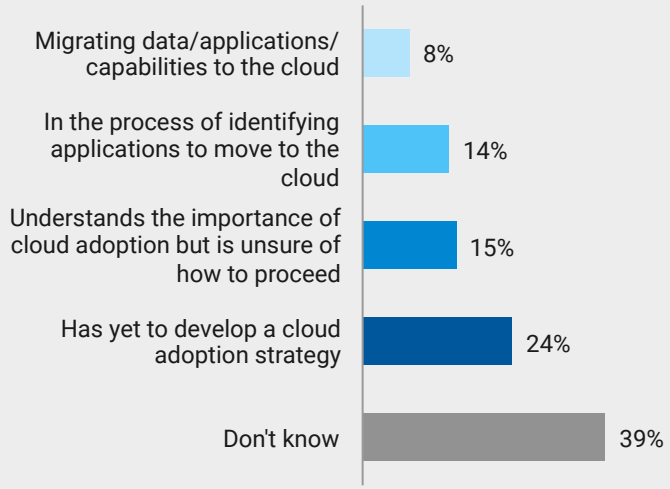
Which best describes how far along your organization is in transitioning to the IC cloud?



Percentage of respondents, n=79
Note: Percentages may not add up to 100% due to rounding

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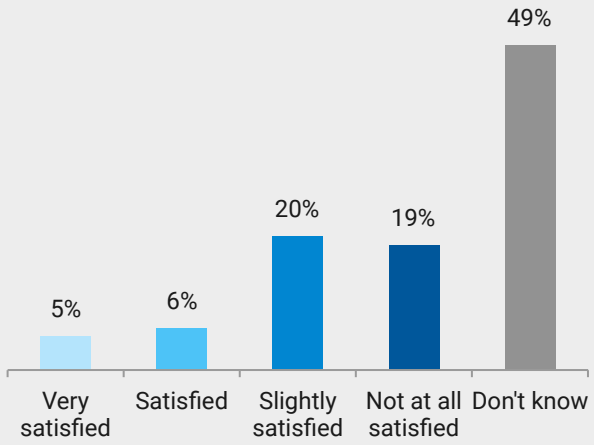
How satisfied are you with the IC cloud's ability to further your organization's mission objectives?



Percentage of respondents, n=79
Note: Percentages may not add up to 100% due to rounding

Most agencies appear to still be in the initial stages of cloud adoption – only 8% of respondents indicate that their organization is currently migrating data, applications, and capabilities to the cloud, while 24% reveal that their agency has yet to develop a cloud adoption strategy. A large plurality of respondents also indicate that they do not know how far along their organization is in transitioning to the cloud or whether the cloud is furthering mission objectives, suggesting that cloud computing is not yet a prominent agency priority.

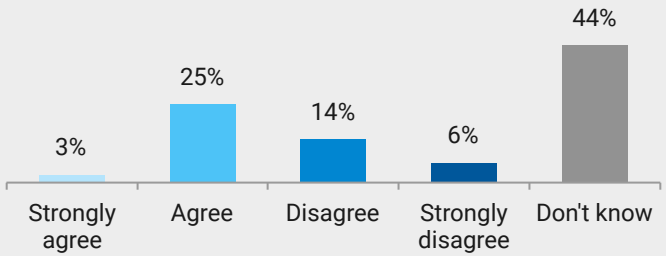
One IC leader observes that his agency is "concerned about penetration of cloud services and compromising of data," highlighting the perceived tension between adopting transformational technologies and maintaining information security.

49%

of respondents are unsure if the IC cloud is furthering agency mission objectives.

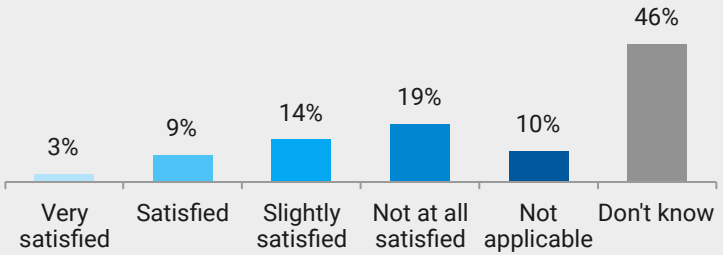
IT contractors have room for improvement in assisting agencies with IC ITE adoption / Envisioning IC ITE

"The IT contractors hired by my organization to assist with IC ITE adoption make a proactive effort to understand mission objectives."



Percentage of respondents, n=80
Note: Percentages may not add up to 100% due to rounding

How satisfied are you with the level of support your organization has received from industry partners with regard to IC ITE systems implementation?



Percentage of respondents, n=79
Note: Percentages may not add up to 100% due to rounding

Only 12%

of respondents are satisfied or very satisfied with the level of support their agency receives from vendors.

In addition, 46% of respondents indicate that they do not know how much support their organization has received from vendors, and 44% of respondents also don't know whether vendors are making a proactive effort to understand mission objectives. Together, these two findings suggest potential communication and collaboration gaps between organizations and their industry partners.

"Vendors need to keep agencies as close to state-of-the-art as possible…we depend on them to deliver to the federal government what they deliver to the rest of the world.

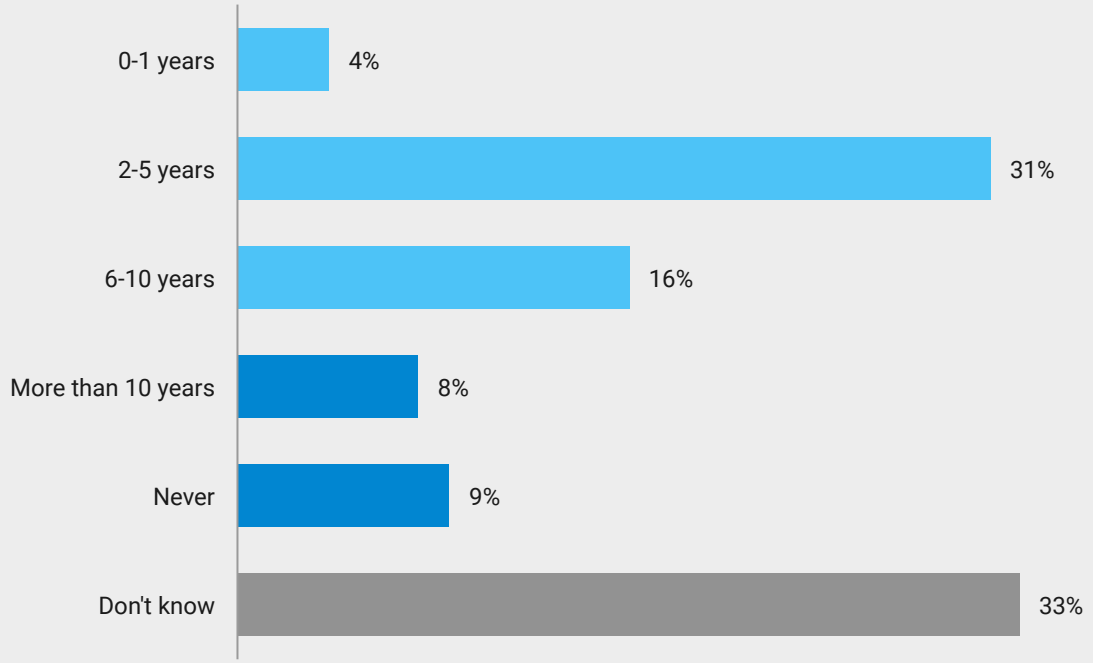
Tom Hall

Technical Director for the IC CIO, Office of the Director of National Intelligence

Remarks given at *Defense One* and INSA's "IC ITE: Progress, Challenges & Opportunities" event, April 26, 2016.

Most IC leaders believe IC ITE could be fully achieved within the next ten years / Envisioning IC ITE

How soon do you think the intelligence community could fully adopt IC ITE?



Percentage of respondents, n=80
Note: Percentages may not add up to 100% due to rounding

In spite of barriers, respondents are largely optimistic about IC ITE's future – a majority (51%) anticipate that the IC could fully implement IC ITE within the next ten years, and 35% believe that IC ITE adoption could be achieved within the next five years.

51%
of respondents anticipate that IC ITE could be fully adopted within the next ten years.

Final Considerations

When seeking to achieve an integrated intelligence enterprise:

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Focus on addressing both technical and non-technical challenges

IC leaders highlight a multitude of hurdles to successful IC ITE adoption. When it comes to technical barriers, respondents most commonly identify incompatible technology and systems both within and outside of their organization as a primary barrier – obstacles that might be surmounted with the aid of strong agency-vendor relationships as well as capable in-house expertise. In addition, respondents also highlight organizational limitations such as federal "red tape," budget constraints, security concerns, and cultural resistance to change.

Mitigating these challenges requires clear, consistent communication between agency leaders and rank-and-file employees on the impact and potential benefits of IC ITE. As NGA IC ITE mission lead Beth Flanagan points out, "It's not as much cultural resistance as it is lack of cultural understanding. People hear about IC ITE and how it's going to change their lives, but they don't know exactly how – if we're going to successfully implement IC ITE we need to convince people of the mission value."

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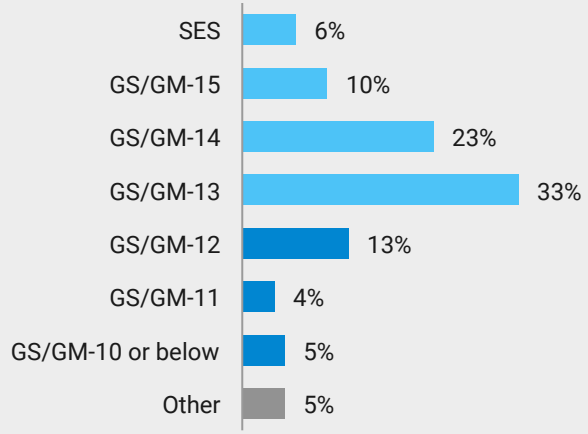
Enhance collaboration between organizations and industry partners

Agencies rely on robust technical expertise and service delivery to help pave the way to a brand new enterprise platform. However, many IC leaders highlight inadequate support from industry partners as well as uncertainty as to whether IT vendors truly understand agency goals and priorities. Moving forward, organizations and their industry partners should focus on building a collaborative relationship and achieving a comprehensive understanding of agency requirements in order to facilitate the transition to IC ITE.

Respondent Profile

All survey respondents are members of the U.S. Intelligence Community

Job grade



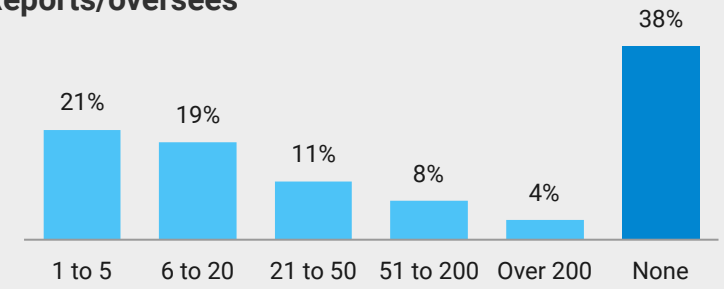
Percentage of respondents, n=80
Note: Percentages may not add up to 100% due to rounding

72%

of respondents rank GS/GM-13 or above, including members of the Senior Executive Service (SES). All are members of the U.S. Intelligence Community. Represented departments and agencies include Homeland Security, Treasury, State, Justice, the Office of the Secretary of Defense, Navy, Energy, Transportation, Army, and other independent agencies.

"Other" includes those employed under other pay scales or ranking systems (e.g., Military, Foreign Service, Federal Wage System, Executive Schedule, etc.)

Reports/oversees



Percentage of respondents, n=80
Note: Percentages may not add up to 100% due to rounding

63%

of respondents are supervisors who oversee at least one employee, either directly or through direct reports.

Appendix

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IC ITE involves the development and deployment of numerous IT services. Please rank the following according to the implementation challenge you believe they pose to the intelligence community.

	Count per rank							Total	Borda count
	1	2	3	4	5	6	7		
Security coordination service	24	15	10	4	8	6	2	69	362
Network requirements/engineering services	17	14	11	16	6	3	3	70	349
Identification, authentication, and authorization capabilities	10	22	16	11	2	4	4	69	344
Joint cloud environment	8	9	9	13	10	10	9	68	266
Enterprise management capability	7	6	10	12	18	11	5	69	263
Common desktop environment	9	4	11	5	11	12	16	68	232
Applications mall	0	1	1	6	12	19	26	65	132
Number of respondents	**75**	71	68	67	67	65	65	-	-

Ranked by Borda count, n=75

Rankings and total scores are displayed here using the Borda count method, where each answer choice earns points based on the order in which respondents placed them. Each respondent's top answer choice receives the maximum score of n points for that respondent, where n is equal to the total number of options. Each subsequent choice receives 1 less point than the one ranked ahead of it. Unranked answer choices receive zero points.

For instance, if a respondent's ranked choices were 1) security coordination service, 2) joint cloud environment, and 3) applications mall, those responses would receive 7,6, and 5 points respectively. These points would be added to Borda count of each answer choice.

With 75 respondents and 7 choices, the maximum score possible for any single answer choice (i.e., if every respondent ranked it as their top outcome) is equal to 525 points (75 x 7).

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