

BRIDGING THE MULTI-DOMAIN BATTLEFIELD

A SURVEY ON THE STATE OF MILITARY COMMUNICATIONS TECHNOLOGY

Underwritten by

Viasat[™] 

TABLE OF CONTENTS

Overview	3
Executive Summary	4
Research Findings	5
About	18

OVERVIEW

Purpose

As the defense landscape evolves, global military prowess will no longer be determined by artillery alone; command over information—and the digital channels that convey it—will determine the victor. Communications drive real-time decision making and information sharing, a key factor of mission success.

The Department of Defense (DoD) has been working to improve its communications technology, realizing this undertaking is vital to remain competitive with its adversaries. But is the pace of modernization sufficient? Additionally, what are the top challenges to a successful communications technology strategy? To answer these questions and more, Government Business Council (GBC) conducted its second annual study looking at military communications technology.

Methodology

In August-September 2019 and September-October 2020, GBC deployed two surveys to a random sample of military government employees to measure change over time in the state of military communications technology. Responses of 330 defense employees were captured after quality control and screening in the 2019 survey, 50% of whom hold GS/GM-13 level or above (including Senior Executive Service). 195 defense employees with similar demographics participated in the 2020 survey. Respondents represent all branches of the military, with greatest input from the Air Force, Navy, and Army in the 2020 survey.

EXECUTIVE SUMMARY

Despite improvements, communications blackouts are common

Fewer respondents (13pp less) reported regular disruptions in their defense communications in 2020 compared to 2019. Nearly all respondents, however, have still experienced at least one communications blackout, with 97% of respondents claiming a complete loss in connectivity at some point while working in military. Additionally, a majority of respondents still think U.S communications technology is either on par with or behind that of their adversaries, suggesting potentially dire implications for the military's standstill in modernization relative to its adversaries.

Acquisition remains a barrier to a military lead in defense technologies

67% of respondents agree that there is room for the military to improve its adoption of communications technology at the speed of relevance. Increased commercial sector engagement could help boost the pace of improvements to the military's communications technology portfolio, according to respondents. Respondents also suggest that increased participation of non-traditional companies in DoD's acquisition could expose the military to the latest and greatest technology and business processes.

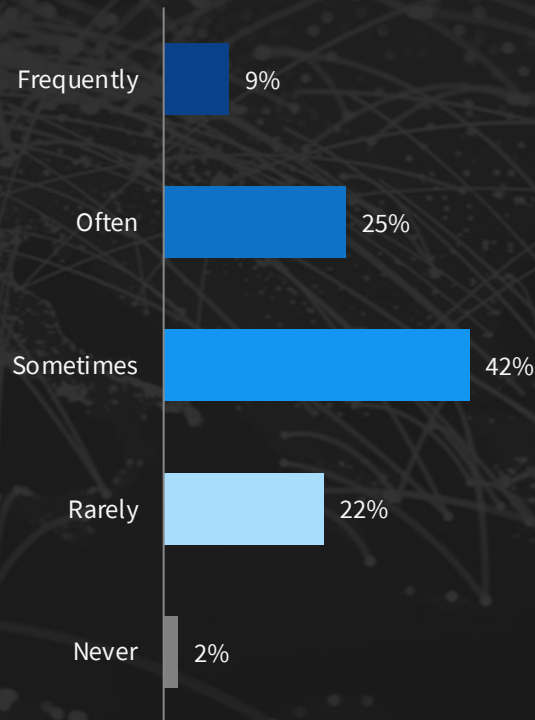
Investments are being made in next-gen capabilities

Though challenges exist with developing and acquiring advanced communications technology, respondents feel that their agencies are starting to mitigate the issues and taking hold of the opportunities. Respondents report that their agencies are upgrading equipment to minimize the challenges created by long-lived, legacy IT. Respondents also consider cloud technology worthy of investment and believe their organizations are prioritizing it in order to outpace competitive U.S. adversaries. Specifically, 36% of respondents report a concerted agency push for cloud computing in the past year.

GAUGING COMMUNICATIONS CAPABILITIES

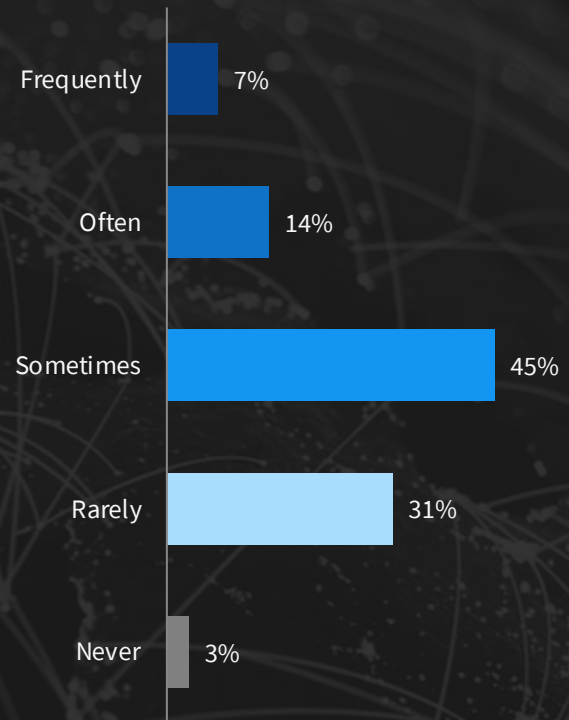
How often is your defense communications technology disrupted to a point where you're left with a complete loss of connectivity?

2019 Data



Percentage of respondents, n=290
Note: 2019 data. Percentages may not add up to 100% due to rounding

2020 Data



Percentage of respondents, n=176
Note: 2020 data. Percentages may not add up to 100% due to rounding

1pp

fewer respondents have experienced a disruption in defense communications technology in 2020 than in 2019.

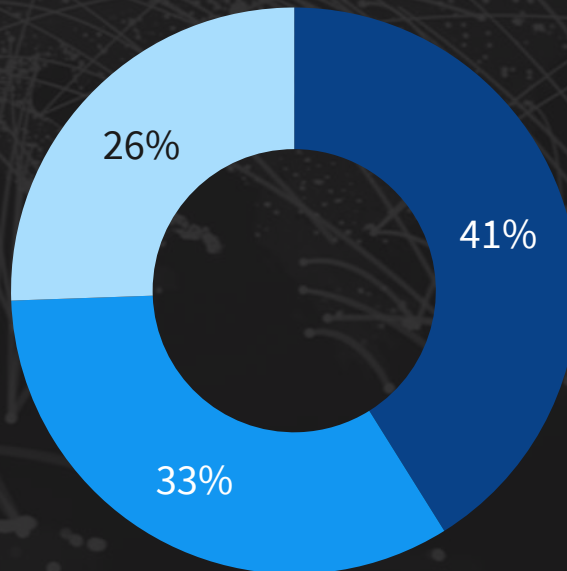
69%

of respondents in 2020 expect the same level of connectivity on the battlefield that they get in the civilian world, just 1pp higher than 2019.

How would you say U.S. defense communications technologies rank relative to those used by its adversaries?

2019 Data

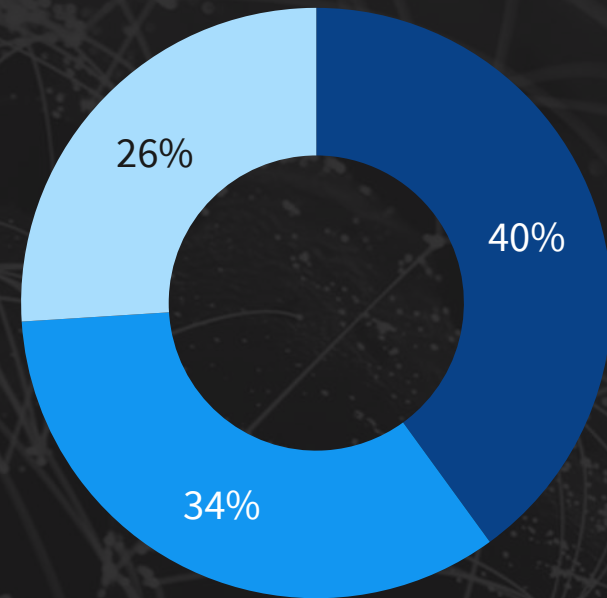
- Far ahead of / ahead of
- On par with
- Far behind / behind



Percentage of respondents, n=252
Note: 2019 data. Percentages may not add up to 100% due to rounding

2020 Data

- Far ahead of / ahead of
- On par with
- Far behind / behind

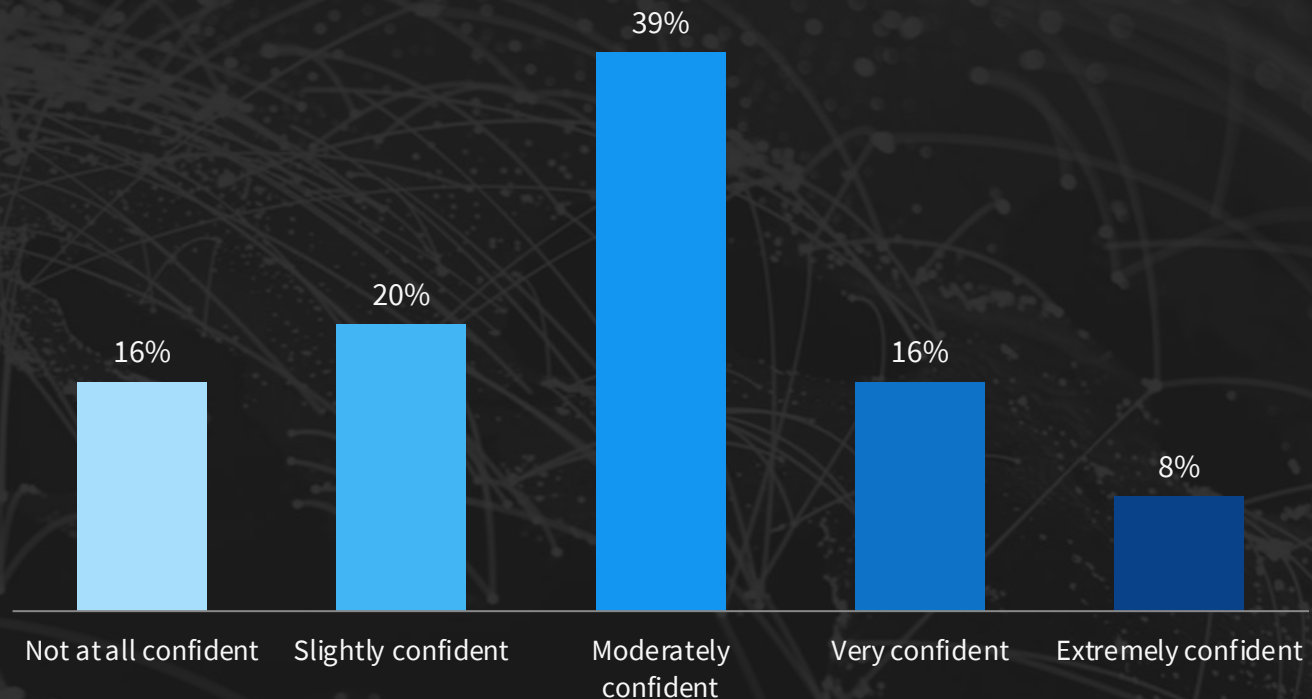


Percentage of respondents, n=149
Note: 2020 data. Percentages may not add up to 100% due to rounding

60%

of 2020 respondents believe that U.S. defense communications technologies are either on par with or falling behind its adversaries, just 1pp more than that of 2019 respondents' sentiment.

How confident are you in your agency's preparedness for a cyber attack on defense communications technology / infrastructure?



Percentage of respondents, n=148
Note: 2020 data. Percentages may not add up to 100% due to rounding

“

We have to be ready to compete and win.”

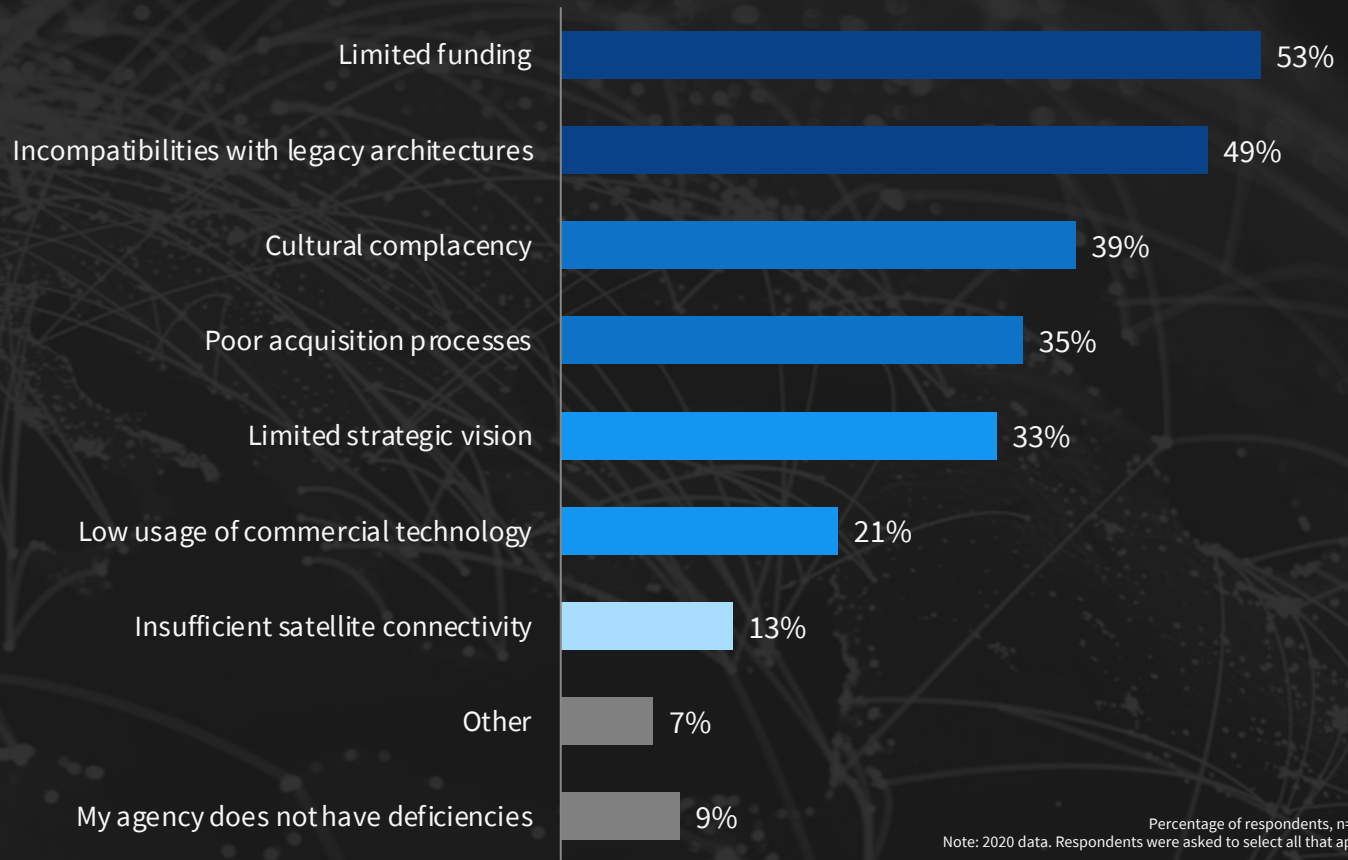
— Rear Adm. Christian Becker, Commander of Space and Naval Warfare Systems Command

Did You Know?

Maintaining secure connectivity in the face of cyber attacks and denial of service attempts by adversaries remains as the number one improvement needed in defense communications technology.

Challenges to Overcome

What do you think are the top causes (if any) of defense communications technology deficiencies in your agency? Please select all that apply.

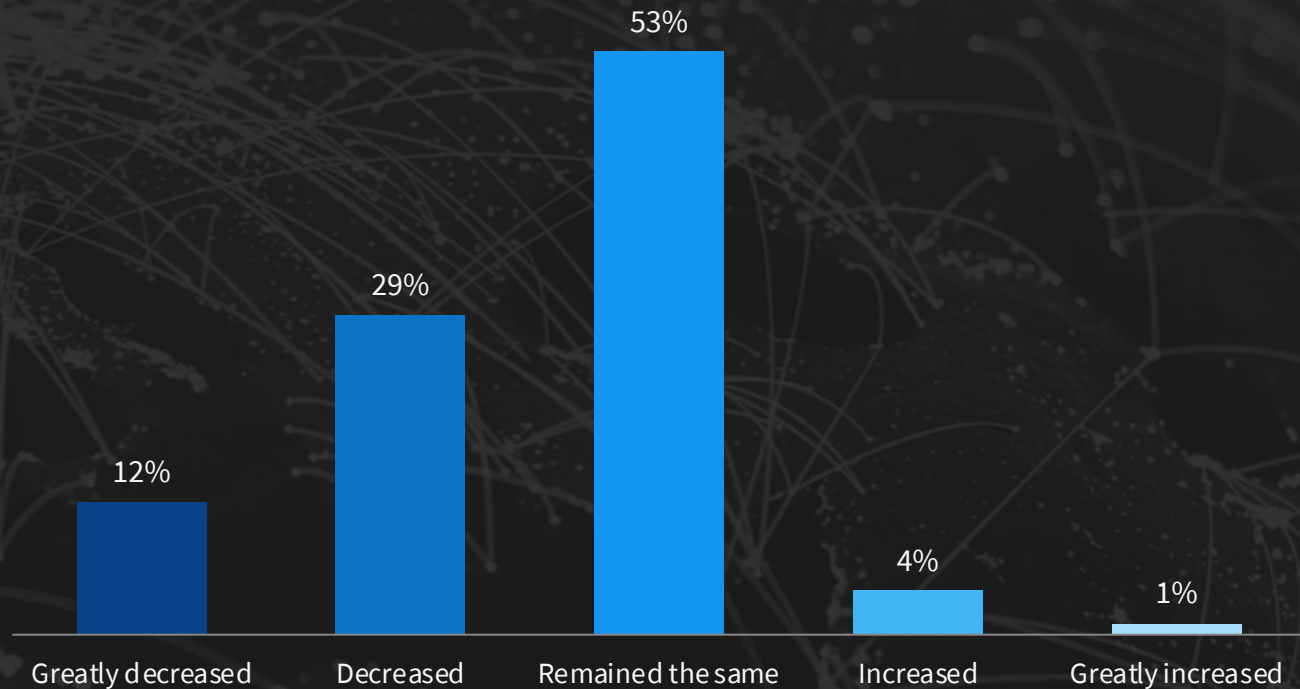


50%

of respondents think that improvements to defense communications are prioritized on par with other agency priorities. 24% think that defense communications are prioritized lower or much lower than other priorities.

Among those with purchasing authority...

With COVID-19, my ability to buy defense communications technology with available funds has _____."



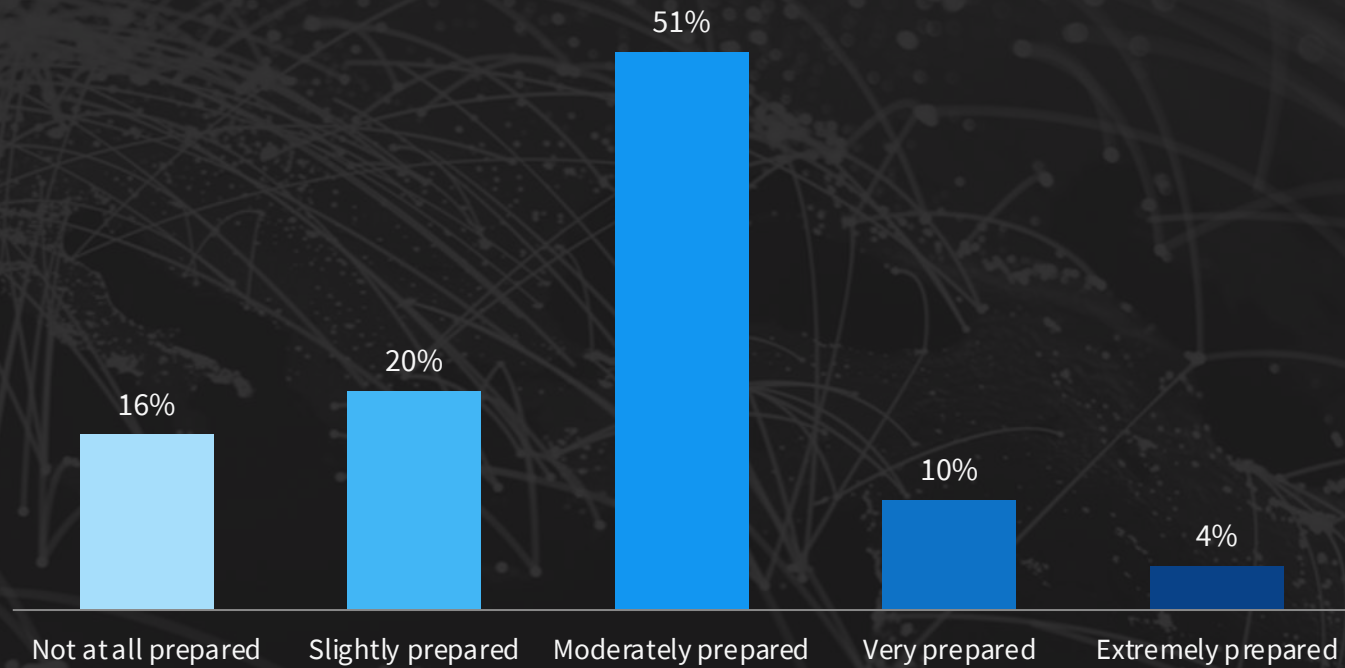
Percentage of respondents, n=68
Note: 2020 data. Percentages may not add up to 100% due to rounding

For satellite communications reaching the end of their designed lifespan, how prepared do you think the Department of Defense Space Command (SPACECOM) is in replacing these technologies without compromising your agency's connectivity?

“

One of our biggest challenges is the investment we have in our legacy terminal architectures. Many of those are stove-piped...”

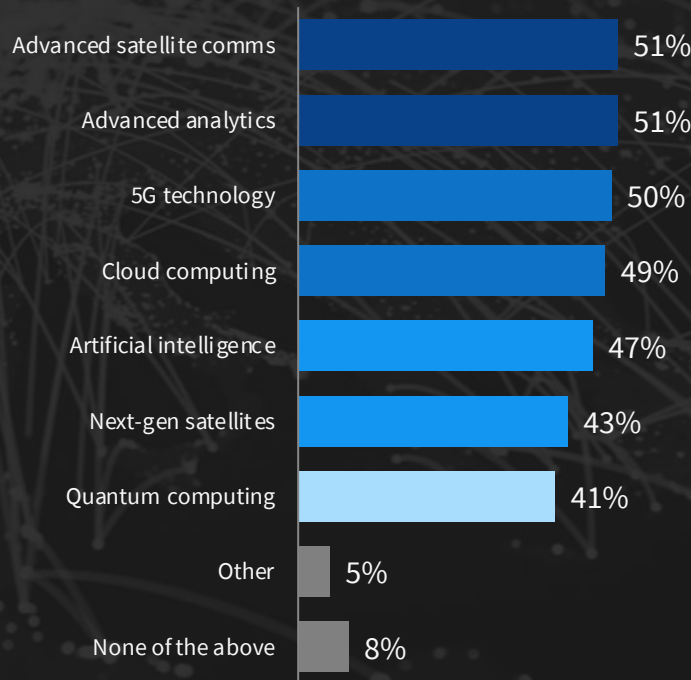
— Lt. Gen. John F. Thompson, Commander of the Space and Missile Systems Center



Percentage of respondents, n=154
Note: 2020 data. Percentages may not add up to 100% due to rounding

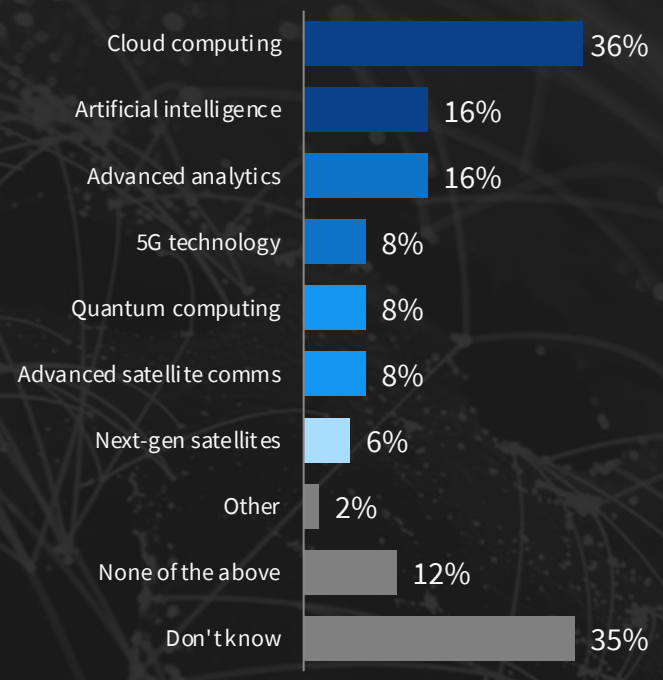
The Military's Communications Future

What next-gen technology do you think your agency must leverage to advance defense communications capabilities above that of adversaries? Please select all that apply.



Percentage of respondents, n=136
Note: 2020 data. Respondents were asked to select all that apply.

What defense communications technology has your agency adopted in the past year to support the next-gen warfighter?



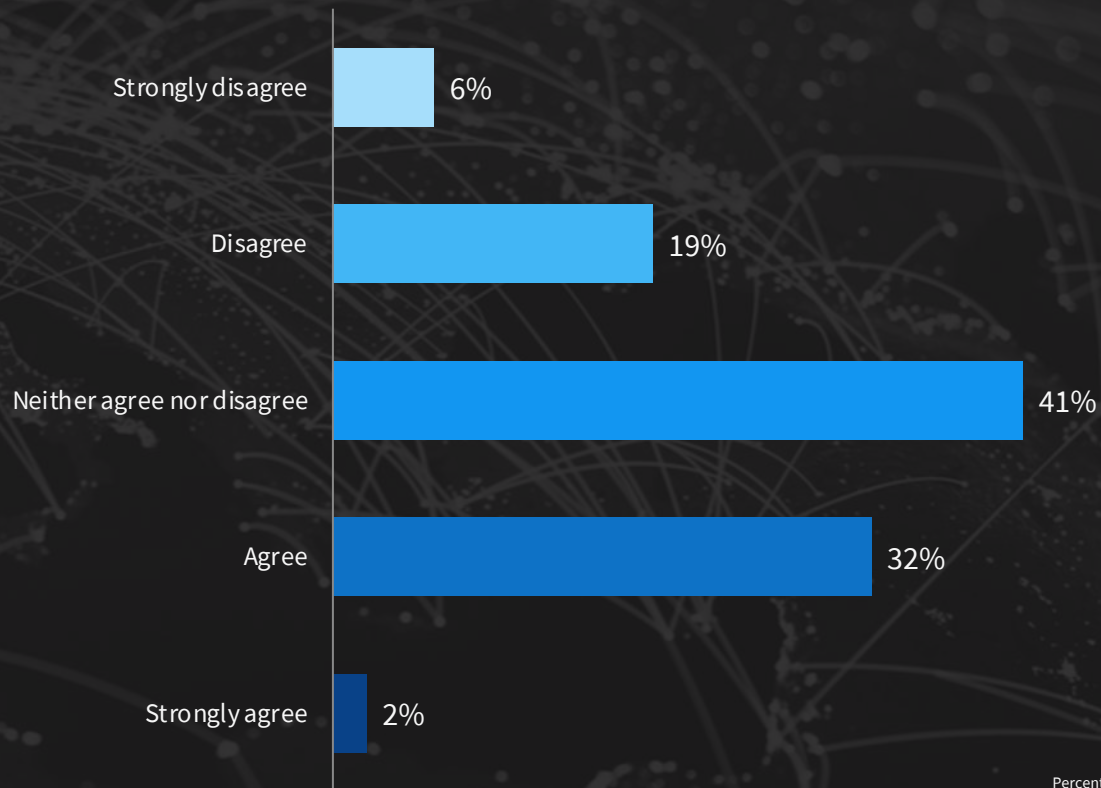
Percentage of respondents, n=130
Note: 2020 data. Respondents were asked to select all that apply.

44%

of respondents in 2020 report that their agencies have upgraded or replaced legacy architecture in a move to improve defense communications. Only 12% report the adoption of open architecture within their agencies.

"My agency's defense communications provide sufficient cloud-enabled access to drive strategic decisions for agency personnel."

2020 Data



Percentage of respondents, n=130
Note: 2020 data. Percentages may not add up to 100% due to rounding

#1

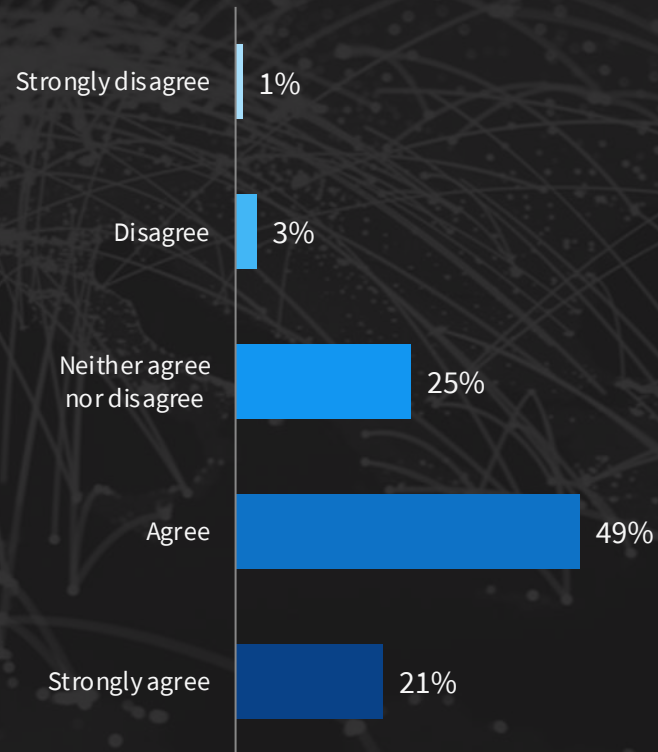
Cloud computing is the top defense communications technology that has been adopted in the past year to support the next-gen warfighter.

81%

of respondents in 2019 agree that it's critical for the military to have access to a modernized end-to-end satellite and terrestrial network to make cloud technologies a reality for the warfighter.

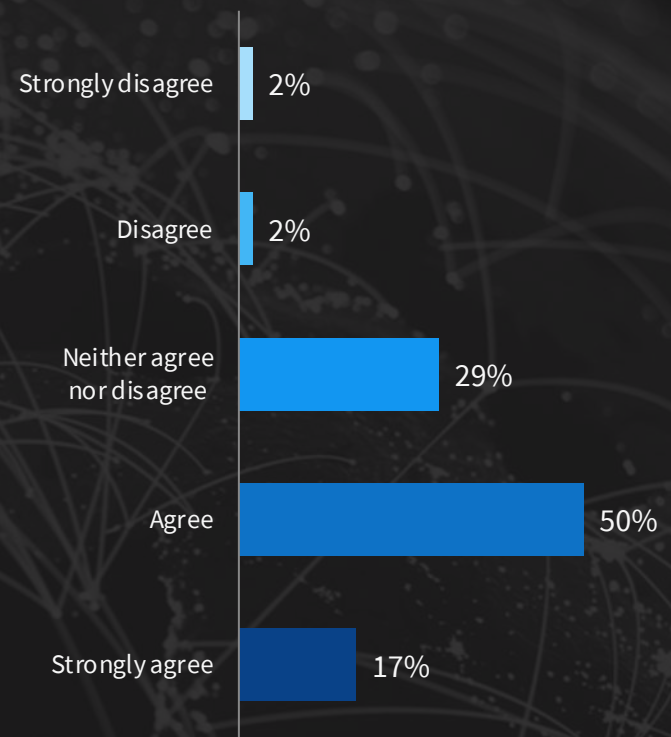
"Adopting new acquisition processes would allow my organization to update its defense communications technologies at the speed of relevance."

2019 Data



Percentage of respondents, n=183
Note: 2019 data. Percentages may not add up to 100% due to rounding

2020 Data



Percentage of respondents, n=130
Note: 2020 data. Percentages may not add up to 100% due to rounding

4pp

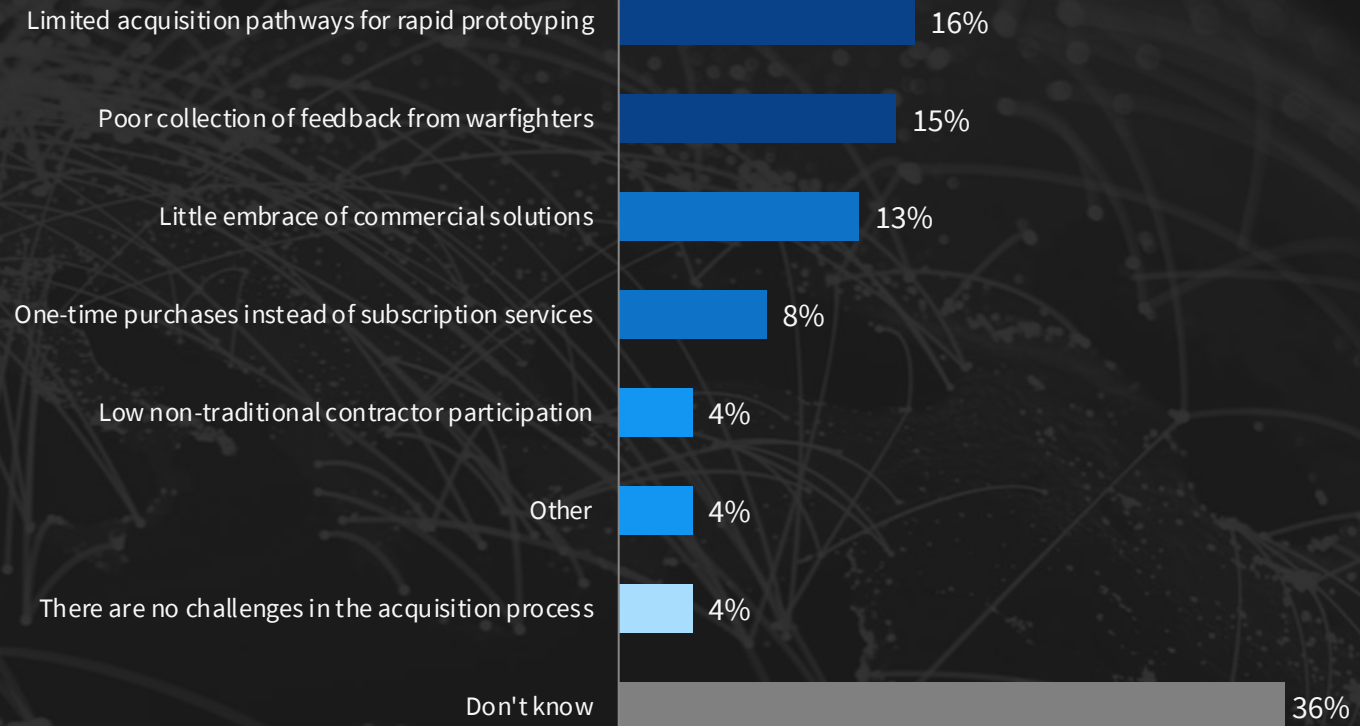
more respondents in 2020 think increasing commercially developed solutions would speed up the current pace of defense acquisitions.

What challenges could be remediated to improve the acquisition process for defense communications technology in your agency? Please select all that apply.

“

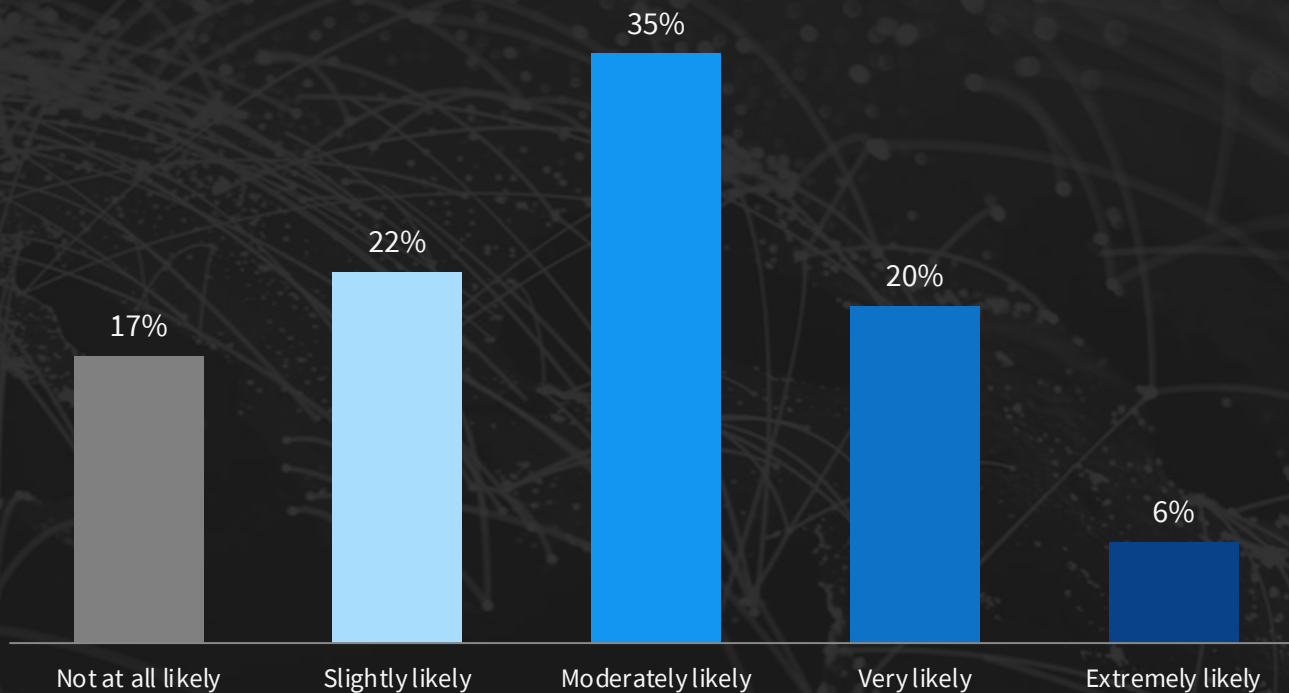
There are things that we've got to fix globally...that are **at or near end of life.**”

— Lt. Gen. Bruce T. Crawford, Chief Information Officer



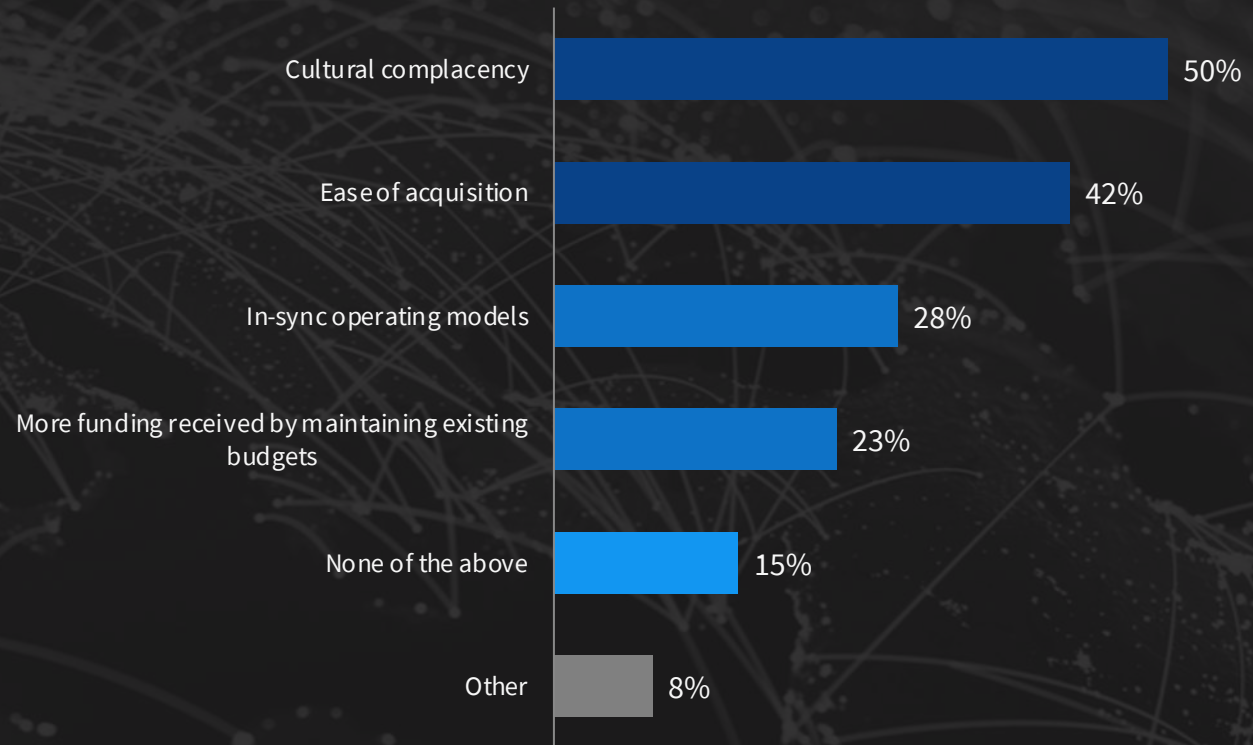
Percentage of respondents, n=135
Note: 2020 data. Respondents were asked to select all that apply.

How likely is your agency to issue third-party defense communications technology and services to keep pace with U.S. adversaries?



Percentage of respondents, n=140
Note: 2020 data. Percentages may not add up to 100% due to rounding

Which of the following might be reasons why the DoD contracts with companies from the Traditional Defense Industrial Base (TDIB) over companies from the New Defense Industrial Base (NDIB)? Please select all that apply.

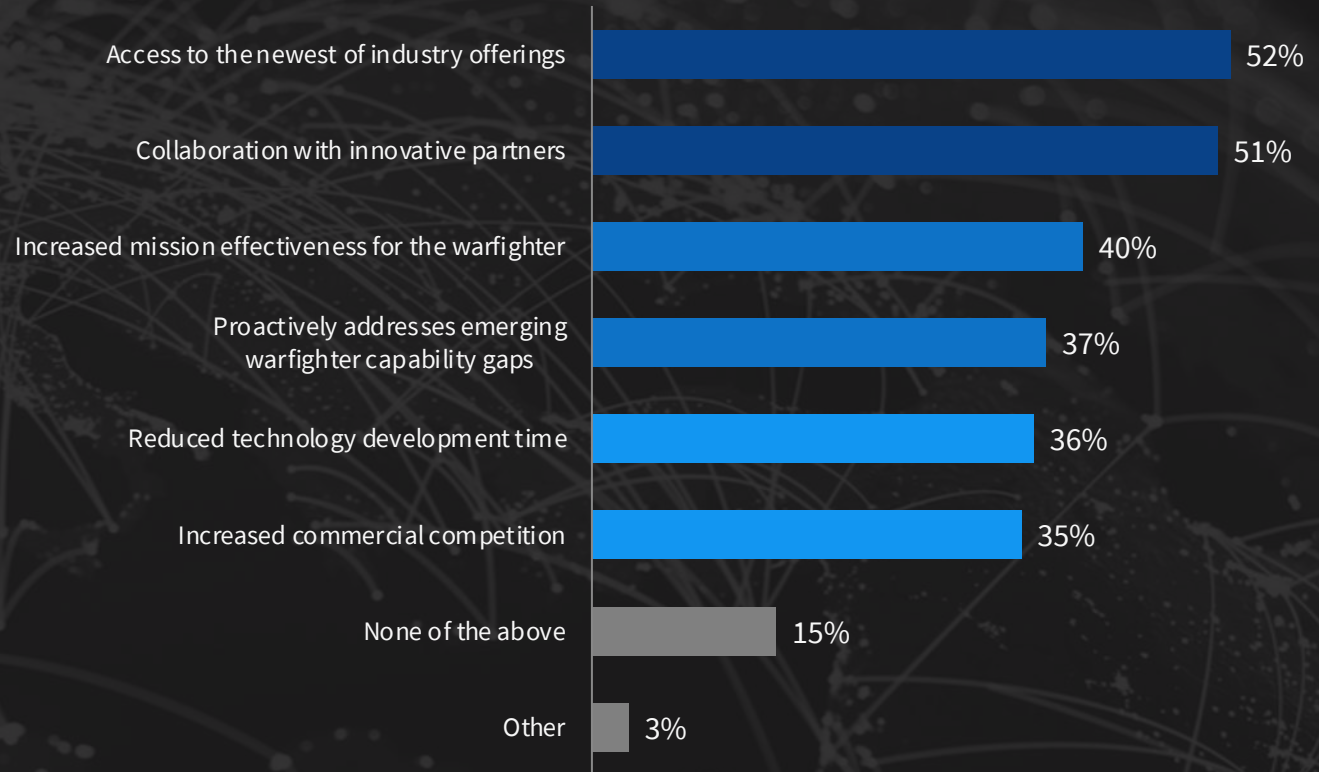


Percentage of respondents, n=124
Note: 2020 data. Respondents were asked to select all that apply.

Did You Know?

The Traditional Defense Industrial Base (TDIB) are the primary companies the DoD contracts that use traditional government procurement methods in support of delivering products and services for the military. The New Defense Industrial Base (NDIB) are non-traditional companies that use commercially driven processes to serve the military. They are not typically contracted by the DoD.

How might increasing acquisition participation with the New Defense Industrial Base benefit your agency? Please select all that apply.



Percentage of respondents, n=124
Note: 2020 data. Respondents were asked to select all that apply.

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ABOUT VIASAT

VIASAT INC.

Viasat is a global communications company that believes everyone and everything can be connected. That's why we're building the ultimate communications network, to enable great, global connectivity to be brought to where it's needed and wanted most: to homes all over the world, to faraway communities, to warfighters on the battlefield, and to people in the air or at sea — to name a few.

Learn more at:
<https://www.viasat.com>

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Viasat believes it is our responsibility to help ensure U.S. and coalition military forces are equipped with the latest capabilities that will help our military forces be successful across the technology driven battlespace of today and tomorrow. With deep roots in defense, Viasat is a national asset - helping to foster a new era of defense technology that helps save lives, protects the integrity of information and delivers the connectivity-driven clarity needed to maintain a tactical advantage.