Report No. DODIG-2021-065



INSPECTOR GENERAL

U.S. Department of Defense

MARCH 30, 2021



Evaluation of Access to Department of Defense Information Technology and Communications During the Coronavirus Disease-2019 Pandemic

INTEGRITY ***** INDEPENDENCE ***** EXCELLENCE





Results in Brief

Evaluation of Access to Department of Defense Information Technology and Communications During the Coronavirus Disease-2019 Pandemic

March 30, 2021

Objective

The objective of this evaluation was to determine the extent to which DoD Components provided access to DoD information technology and communications during the coronavirus disease–2019 (COVID-19) pandemic.

Background

In May 2006, the President issued the National Strategy for Pandemic Influenza Implementation Plan that requires Federal agencies to develop plans to maintain information technology and communications systems to continue operations during a pandemic. In response, the Assistant Secretary of Defense for Homeland Defense and Global Security (ASD[HD&GS]) issued the DoD Implementation Plan for Pandemic Influenza (DoD Implementation Plan) in August 2006 to ensure the continuity of essential functions in the event of a pandemic. The DoD Implementation Plan states that during a pandemic, special consideration must be given to social distancing in the workplace through teleworking. DoD Components' pandemic plans should include the use of laptops, high-speed telecommunications links, and other systems that enable personnel to perform essential functions while teleworking. The plans should also include the requirement to test telework procedures, the impact of Government-wide mandated telework on internal networks, and backup plans for communications infrastructure.

Apart from DoD pandemic planning, the DoD Telework Policy states that telework will be actively promoted and implemented

Background (cont'd)

throughout the DoD in support of emergency preparedness. The policy recognizes that during a pandemic, essential and non-essential personnel and Service members may be asked to telework; therefore, periodic telework exercises are required to ensure its effectiveness in continuing operations and an efficient transition to telework in the event of a pandemic.

In response to the COVID-19 pandemic, DoD Components began transitioning to maximum telework in mid-March 2020. On March 18, 2020, the Deputy Assistant Secretary of Defense issued a memorandum stating that DoD Components could execute their pandemic plans, or portions of their plans, at any time to ensure the ability to perform their essential functions.

To determine the extent to which DoD Components provided access to DoD information technology and communications during maximum telework in response to the COVID-19 pandemic, we administered a 43-question survey to a sample of DoD military and civilian personnel. In August 2020, we invited 269,282 DoD military and civilian personnel to respond to our survey to share their teleworking experiences from March 15 through August 26, 2020. We received a total of 56,057 responses, comprising 7,323 military and 48,734 civilian personnel, for a 20.8 percent overall response rate. We also conducted interviews with officials from the DoD Office of the Chief Information Officer, the DoD COVID-19 Telework Readiness Task Force, and the Offices of the Chief Information Officer for 10 DoD Components to obtain their perspectives on the infrastructure established to support the increased number of teleworking personnel.

Finding

According to the 54,665 respondents who reported their telework status, the DoD transitioned 88.2 percent of respondents to full- or part-time telework from March 15, 2020 through August 26, 2020, during the COVID-19 pandemic. Of the 11.8 percent of respondents who continued to work on site, the most common reasons provided by survey respondents for not teleworking were that their work could not be performed while teleworking, or they were not eligible to telework. Of those who teleworked, survey respondents



Results in Brief

Evaluation of Access to Department of Defense Information Technology and Communications During the Coronavirus Disease-2019 Pandemic

Finding (cont'd)

reported problems accessing DoD Component networks, voice and video teleconference applications, and identified shortfalls in Government-furnished equipment available to DoD personnel when their Components first transitioned to maximum telework in mid-March 2020. However, the problems cited in survey responses lessened over time as the DoD increased its network availability and capacity, added voice and video conferencing applications, and purchased and distributed computer and communications equipment.

Based on the results of the survey and interviews with DoD officials, the DoD's initial challenges occurred because some DoD Components had not fully tested whether their information systems could support Government-wide mandated telework and had not conducted telework exercises with their personnel before March 2020 as required by the DoD Implementation Plan and the DoD Telework Policy. Therefore, some DoD Components were unprepared for the network and communications limitations, as well as equipment and application shortfalls, uncovered by the transition to maximum telework. While the Marine Corps, Defense Contract Audit Agency (DCAA), Defense Information Systems Agency (DISA), and the Defense Logistics Agency (DLA) were able to immediately transition to maximum telework, the Army, Navy, Air Force, Defense Contract Management Agency (DCMA), Defense Finance Accounting Service (DFAS), and Defense Health Agency (DHA) faced challenges during the transition.

The ability of DoD personnel to perform essential and non-essential tasks while on maximum telework depends on DoD Components' ability to provide enough network capacity, communication tools, and equipment to enable the DoD's essential and non-essential personnel to stay mission-ready and productive while in a telework status. Some teleworking personnel reported that they found their own alternative solutions including the use of unauthorized video conferencing applications and personal laptops, printers, and cell phones to complete their work because some DoD Components were unprepared for maximum telework. However, using unauthorized applications or sharing DoD information over improperly secured devices, even temporarily, increases the risk of exposing sensitive departmental information that could impact national security and DoD missions.

Overall, DoD Components and the majority of survey respondents expressed positive maximum telework experiences. Specifically, 88.1 percent of survey respondents stated that their productivity level remained the same or increased during maximum telework, regardless of their Component's initial telework challenges. Many survey respondents reported a desire to telework regularly in the future (37,146 responses) and expressed appreciation for commuting less often (27,711 responses), better work-life balance (25,508 responses), and more flexible work hours (22,461 responses).

Recommendations

We recommend that the ASD(HD&GS) revise the DoD Implementation Plan for Pandemic Influenza to update planning assumptions with the use of telework for essential and non-essential personnel, align the DoD Implementation Plan with the DoD Telework Policy, and require DoD Components to update their plans to include revised assumptions regarding telework for personnel and the resources required to support the teleworking workforce.

We recommend that the Under Secretary of Defense for Policy (USD[P]), in coordination with the Under Secretary of Defense for Personnel and Readiness, establish management oversight procedures to verify that DoD Components have performed the testing, training, and exercise requirements of the DoD Implementation Plan and the DoD Telework Policy.



Results in Brief

Evaluation of Access to Department of Defense Information Technology and Communications During the Coronavirus Disease-2019 Pandemic

Recommendations (cont'd)

The oversight procedures should assess the ability of DoD Components to support Government-wide mandated telework, including the results of tests of network and communications systems and telework exercises with personnel.

Management Comments and Our Response

The Deputy Under Secretary of Defense for Policy (DUSD[P]), responding for the USD(P) and the ASD(HD&GS) did not respond to the recommendation to require DoD Components to update their Pandemic Plans to include revised assumptions regarding telework for personnel and the resources required to support the teleworking workforce. Therefore, the recommendation is unresolved. We request that the ASD(HD&GS) provide comments on the final report.

The DUSD(P) did not agree or disagree with the other two recommendations in the report. However, the DUSD(P) stated that the ASD(HD&GS) would work with the Joint Staff and the U.S. Northern Command to include the use of telework for essential and non-essential personnel in the Functional Campaign Plan-Pandemics and Infectious Diseases, which will replace the DoD Implementation Plan for Pandemic Influenza, and align the plan with the DoD Telework Policy. In addition, the DUSD(P) stated that the ASD(HD&GS) would also work with the Joint Staff to include the use of telework for essential and non-essential personnel in the Global Integration Framework-Pandemics and Infectious Diseases.

Furthermore, the DUSD(P) stated that her office would support and advocate for oversight procedures to verify that DoD Components performed the testing, training, and exercise requirements of the Global Integration Framework-Pandemics and Infectious Diseases, the Functional Campaign Plan-Pandemics and Infectious Diseases, the DoD Telework Policy, and the Pandemic Plans. Therefore, the recommendations are resolved, but will remain open until the ASD(HD&GS) updates the Functional Campaign Plan-Pandemics and Infectious Diseases and the Global Integration Framework-Pandemics and Infectious Diseases to include the use of telework for essential and non essential personnel and USD(P) provides oversight procedures for verifying that DoD Components performed the required testing, training, and exercises.

Please see the Recommendations Table on the next page for the status of the recommendations.

Recommendations Table

Management	Recommendations Unresolved	Recommendations Resolved	Recommendations Closed
Under Secretary of Defense for Policy		2	
Assistant Secretary of Defense for Homeland Defense and Global Security	1.b	1.a	

Please provide Management Comments by April 29, 2021.

Note: The following categories are used to describe agency management's comments to individual recommendations.

- **Unresolved** Management has not agreed to implement the recommendation or has not proposed actions that will address the recommendation.
- **Resolved** Management agreed to implement the recommendation or has proposed actions that will address the underlying finding that generated the recommendation.
- **Closed** OIG verified that the agreed-upon corrective actions were implemented.



INSPECTOR GENERAL DEPARTMENT OF DEFENSE 4800 MARK CENTER DRIVE ALEXANDRIA, VIRGINIA 22350-1500

March 30, 2021

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR POLICY ASSISTANT SECRETARY OF DEFENSE FOR HOMELAND DEFENSE AND GLOBAL SECURITY

SUBJECT: Evaluation of Access to Department of Defense Information Technology and Communications During the Coronavirus Disease 2019 Pandemic (Report No. DODIG-2021-065)

This final report provides the results of the DoD Office of Inspector General's evaluation. We previously provided copies of the draft report and requested written comments on the recommendations. We considered management's comments on the draft report when preparing the final report. Those comments are included in the report.

This report contains one recommendation that is considered unresolved because management officials did not address the recommendation. Therefore, as discussed in the Recommendations, Management Comments, and Our Response section of this report, the recommendation will remain unresolved until an agreement is reached on the actions to be taken to address the recommendation. Once an agreement is reached, the recommendation will be considered resolved, but will remain open until adequate documentation has been submitted showing that the agreed-upon action has been completed. Once we verify that the action is complete, the recommendation will be closed.

This report contains two recommendations that are considered resolved. Therefore, as discussed in the Recommendations, Management Comments, and Our Response section of this report, the recommendations will remain open until adequate documentation has been submitted showing that the agreed-upon actions have been completed. Once we verify that the actions are complete, the recommendations will be closed.

DoD Instruction 7650.03 requires that recommendations be resolved promptly. For the unresolved recommendation, please provide us within 30 days your response concerning specific actions in process or alternative corrective actions proposed on the recommendation. Send your response to either **actions** if unclassified or **actions** if classified SECRET.

For the resolved recommendations, please provide us within 90 days documentation showing that the agreed-upon actions have been completed. Send your response to either if unclassified or for the authorizing official for your organization. We appreciate the cooperation and assistance received during the evaluation. If you have any questions, please contact me at the second second

Carol M. Hama

Carol N. Gorman Assistant Inspector General for Audit Cyberspace Operations

Contents

Introduction

)bjective
Background

Finding. The DoD Took Action to Address Its Initial Challenges Transitioning to Maximum Telework

Telework Frequency Before and After the DoD's Transition to	
Maximum Telework	8
Survey Responses Indicate Maximum Telework Improved Over Time	
Some DoD Components Could Immediately Support Maximum Telework, Others Could Not	
Some DoD Components Did Not Fully Test Telework Capabilities	
The Impact of Maximum Telework on the DoD	
Recommendations, Management Comments, and Our Response	

Appendixes

Appendix A. Scope and Methodology	
Use of Computer-Processed Data	
Use of Technical Assistance	
Prior Coverage	
Appendix B. DoD OIG COVID-19 Telework Survey and Responses	
Appendix C. DoD OIG COVID-19 Telework Survey Respondents by	
DoD Components	

Management Comments

Assistant Secretary of Defense for Homeland Defense and Global Security and	
Under Secretary of Defense for Policy	. 85
Acronyms and Abbreviations	86
Glossary	87



Introduction

Objective

The objective of this evaluation was to determine the extent to which DoD Components provided access to DoD information technology and communications during the coronavirus disease–2019 (COVID-19) pandemic.

Background

COVID-19 is an infectious disease caused by a newly discovered coronavirus. On January 31, 2020, the Secretary of Health and Human Services declared a public health emergency due to confirmed cases of COVID-19 in the United States.¹ On March 11, 2020, the World Health Organization declared the COVID-19 outbreak a pandemic, and on March 13, 2020, the President declared the COVID-19 pandemic a national emergency as COVID-19 continued to spread across the country.² On March 15, 2020, to protect the health and safety of the workforce, the Acting Director of the Office of Management and Budget issued a memorandum asking all Federal Executive Branch departments and agencies to offer maximum telework flexibilities to all eligible personnel.³ Two days later, on March 17, 2020, the Office of Management and Budget issued a memorandum directing agencies to begin implementing policies and procedures to safeguard the health and safety of Federal workplaces, including maximizing telework across the Nation for the Federal workforce, while ensuring that Government operations continue.⁴

The DoD Transition to Maximum Telework

On March 8, 2020, the Office of the Under Secretary of Defense for Personnel and Readiness issued a memorandum that provided DoD Components with guidance for responding to the COVID-19 pandemic.⁵ The memorandum gave supervisors the discretion to allow personnel to telework, switch to a flexible work schedule, and use various types of leave, or a combination of these options. The memorandum required DoD Components to review all civilian personnel

¹ U.S. Department of Health and Human Services, "Determination That a Public Health Emergency Exists," January 31, 2020.

² President of the United States of America, Proclamation 9994, "Declaring a National Emergency Concerning the Novel Coronavirus Disease (COVID-19) Outbreak," March 13, 2020. A pandemic is a global outbreak of a disease that occurs when a new virus emerges to infect people and can spread between people sustainably.

³ Executive Office of the President, Office of Management and Budget, Policy Memorandum M-20-15, "Updated Guidance for the National Capital Region on Telework Flexibilities in Response to Coronavirus," March 15, 2020. Telework is a voluntary arrangement by which an employee or Service member performs their assigned official duties at an alternative worksite, such as at home.

⁴ Executive Office of the President, Office of Management and Budget, Policy Memorandum M-20-16, "Federal Agency Operational Alignment to Slow the Spread of Coronavirus COVID-19," March 17, 2020.

⁵ Under Secretary of Defense for Personnel and Readiness Memorandum, "Civilian Personnel Guidance for DoD Components in Responding to Coronavirus Disease 2019," March 8, 2020.

positions to determine telework eligibility, establish or update telework agreements for as many personnel as possible, and conduct tests to determine if technology and processes were in place for effective telework. Additionally, the memorandum instructed military commanders to consider maximizing the portion of their workforce that could perform their duties via telework, and to identify essential personnel who must report to their duty station during the pandemic.

In accordance with the Office of Management and Budget and Under Secretary of Defense for Personnel and Readiness memorandums, DoD Components began implementing maximum telework policies and procedures in March 2020. For example, the Defense Information Systems Agency (DISA) directed their workforce to maximize telework on March 11, 2020; the Defense Logistics Agency (DLA) moved to maximum telework on March 17, 2020; the Air Force directed commanders to maximize telework on March 20, 2020; and the Defense Health Agency (DHA) directed all non-mission critical personnel to begin teleworking on March 24, 2020. On March 23, 2020, the Acting Assistant Secretary of Defense for Manpower and Reserve Affairs issued a memorandum strongly encouraging military commanders to maximize telework for as many military members as practical. Finally, the Secretary of Defense issued a "Message to the Force" on March 27, 2020, encouraging all DoD personnel to minimize person-to-person interaction and embrace social distancing and telework to protect Service members, DoD civilians, and their families during the pandemic while continuing DoD operations.⁶

On May 26, 2020, the DoD Chief Management Officer released a five-phase plan to return to DoD offices.⁷ On June 15, 2020, the DoD moved to Phase 1, which encouraged at least 60 percent of the workforce to telework. On June 25, 2020, the DoD moved to Phase 2, which still encouraged at least 20 percent of the workforce to telework. On November 24, 2020, in response to the increase in COVID-19 cases, the DoD Chief Management Officer issued a memorandum encouraging maximum telework for all personnel and increasing the minimum goal for teleworking to 60 percent of the workforce.⁸

⁶ Secretary of Defense Memorandum, "Message to the Force – COVID-19 Response," March 27, 2020.

⁷ Chief Management Officer Memorandum, "Pentagon Reservation Plan for Resilience and Aligning with National Guidelines for Opening Up America Again," May 26, 2020. The five phases include: (0) maximize telework with goal of 80 percent or more teleworking; (1) encourage telework with goal of 60 percent or more teleworking; (2) encourage telework with goal of 20 percent or more teleworking; (3) normal telework, return to office spaces with social distancing protocols; and (4) optimized telework and working from office spaces.

⁸ Chief Management Officer Memorandum, "COVID-19 - Move to Health Protection Condition BRAVO PLUS (HPCON B+) of the Pentagon Reservation Plan for Resilience," November 24, 2020.

Continuity of Operations and Telework Guidance

In November 2005, in the midst of the avian flu outbreak, President George W. Bush issued the National Strategy for Pandemic Influenza to provide a framework for future pandemic planning efforts.⁹ In May 2006, the President issued the National Strategy for Pandemic Influenza Implementation Plan (National Implementation Plan) that identifies critical steps required to address the threat of a pandemic.¹⁰ The National Implementation Plan recognizes that planning for a pandemic influenza will involve the use of alternative staff locations, such as teleworking, in a non-traditional way. It also states that it is critical that organizations anticipate the potential impact of an influenza pandemic on their information technology systems. As a result, the National Implementation Plan requires Federal agencies to develop plans to maintain information technology and communications system connectivity for internal organizations and their external partners and to continue operation of essential functions during a pandemic.¹¹ The National Implementation Plan also required that significant steps be taken immediately because it recognizes that preparedness for a pandemic requires the establishment of communications infrastructure and capacity, a process that can take years.

In response to the requirement for Federal agencies to develop pandemic response plans, the Assistant Secretary of Defense for Homeland Defense and Global Security (ASD[HD&GS]) issued the DoD Implementation Plan for Pandemic Influenza (DoD Implementation Plan) in August 2006 to ensure the continuity of essential functions in the event of a pandemic.¹² The DoD Implementation Plan instructs DoD Components to develop or revise their continuity of operations plans to fully implement the recommendations in the National Plan. Specifically, the DoD Implementation Plan states that Component pandemic plans should be operational documents that articulate responsibilities and address personnel safety, continuity of operations, and communications. The DoD Implementation Plan states that during a pandemic, special consideration must be given to social distancing in the workplace through teleworking. Therefore, DoD Components' pandemic plans should include:

- use of laptops, high-speed telecommunications links, and other systems that enable personnel to perform essential functions while teleworking;
- tests and exercises of telework, as well as the impact of Government-wide mandated telework, on internal networks. Testing of plans includes tabletop, functional, and full-scale exercises of plan activation in the

⁹ Homeland Security Council, "National Strategy for Pandemic Influenza," November 2005.

¹⁰ Homeland Security Council, "National Strategy for Pandemic Influenza Implementation Plan," May 2006.

¹¹ The National Strategy for Pandemic Influenza Implementation Plan defines "essential functions" as "functions that are absolutely necessary to keep a business operating during an influenza pandemic and critical to survival and recovery."

¹² Office of the Assistant Secretary of Defense, Homeland Defense, "Department of Defense Implementation Plan for Pandemic Influenza," August 2006.

event of a pandemic influenza. Testing, training, and exercises should also include practicing social distancing techniques, including telework capabilities, and assessing the impacts of a skeleton staff on facilities, essential functions and services; and

• backup plans for communications infrastructure if surge demand causes communication failure.

Apart from DoD pandemic planning, the DoD Telework Policy states that telework will be actively promoted and implemented throughout the DoD in support of emergency preparedness.¹³ The policy requires that telework be authorized for the maximum number of positions and used to the broadest extent possible by eligible personnel. The policy also requires periodic telework exercises to ensure its effectiveness in continuing operations and an efficient transition to telework in the event of a crisis or national emergency, such as a pandemic influenza. The policy recognizes that during a pandemic, essential personnel and Service members *as well as non-essential personnel* may be asked to telework to prevent the spread of the disease (emphasis added). The policy states that to prepare for a pandemic health crisis, personnel and Service members should telework on a regular basis and personnel and service members not typically eligible for telework should telework on a situational basis to ensure their proficiency with, and the effectiveness of, telework in continuing operations.

On March 18, 2020, the Deputy Assistant Secretary of Defense for Defense Continuity and Mission Assurance issued a memorandum stating that DoD Components may execute their pandemic plans, or portions of their plans, at any time to ensure the ability to execute their essential functions.¹⁴ The Deputy Assistant Secretary of Defense noted that the COVID-19 pandemic has re-emphasized the importance of building continuity or resiliency into DoD operations for its missions to succeed.

Overview of Survey Methodology

To determine the extent to which DoD Components provided access to DoD information technology and communications during the COVID-19 pandemic, we administered a survey in mid-August 2020, to a sample of 269,282 military and civilian personnel across the DoD.¹⁵ We received a total of 56,057 responses, from 7,323 military and 48,734 civilian personnel, for an overall response rate of 20.8 percent.

¹³ DoD Instruction 1035.01, "Telework Policy," April 4, 2012.

¹⁴ Office of the Assistant Secretary of Defense, Homeland Defense & Global Security, "The Role of Continuity in the COVID-19 Pandemic Response," March 18, 2020.

¹⁵ We sent survey invitations to a statistical sample of personnel from the Army, Marine Corps, Navy, and Air Force. We sent survey invitations to all personnel from the other DoD Components, with some exclusions. See Appendix A for a discussion of the survey scope and methodology.

The survey consisted of 43 questions divided into ten topics regarding the respondents':

- 1. demographic information, including their DoD Component and career field;
- 2. telework frequency before and after the transition to maximum telework;
- experience accessing their DoD Component's network and communications tools during the first 2 weeks of maximum telework and at the time of the survey;
- 4. information technology equipment needed and used;
- 5. software applications needed and used;
- 6. need to access classified information;
- 7. Component's information technology support;
- 8. productivity during maximum telework;
- 9. opinion on the future of telework; and
- 10. final comments on maximum telework.

Because the DoD Components transitioned to maximum telework at various times after March 15, 2020, we did not specify a beginning date for maximum telework but instead asked survey respondents to answer the questions based on the date that their Component transitioned to maximum telework.¹⁶ We also asked respondents about their teleworking experiences "currently" or "to the present" which was August 5-26, 2020, when the survey was open.

The survey was voluntary and respondents could leave the survey at any time. We designed the survey to skip irrelevant questions based on the respondent's previous answers; therefore, not every respondent answered every question. For example, if the survey respondent answered "No" to the question "From the time your Component transitioned to maximum telework to the present, have you teleworked at any time?" the survey would skip all the questions about teleworking during maximum telework. We present the information from the survey based on the number of responses to each question.

¹⁶ For the purposes of this evaluation, we referred to the maximum telework period as the period from March 15, 2020 through August 26, 2020.

We also conducted interviews with officials from the DoD Office of the Chief Information Officer (CIO), the DoD COVID-19 Telework Readiness Task Force, and the Offices of the CIO for 10 DoD Components to obtain their perspectives on the infrastructure established to support the increased number of teleworking personnel.¹⁷ See Appendix A for a discussion of the scope and methodology, Appendix B for the survey questions and responses, and Appendix C for a summary of survey respondents by DoD Component.

¹⁷ On June 5, 2020, the DoD CIO established the DoD COVID-19 Telework Readiness Task Force to review and address technical teleworking challenges and requirements during the COVID-19 pandemic. Officials from several DoD offices participated in the task force, including the DoD Office of the CIO, U.S. Cyber Command, Joint Force Headquarters DoD Information Network, the Defense Information Systems Agency, and the National Security Agency.

Finding

The DoD Took Action to Address Its Initial Challenges Transitioning to Maximum Telework

According to the 54,665 respondents who reported their telework status, the DoD transitioned 88.2 percent of respondents to full- or part-time telework from March 15, 2020 through August 26, 2020, during the COVID-19 pandemic. Of the 11.8 percent of respondents who continued to work on site, the most common reasons provided by survey respondents for not teleworking were that their work could not be performed while teleworking, or they were not eligible to telework. Of those who teleworked, survey respondents reported problems accessing DoD Component networks, voice and video teleconference applications, and identified shortfalls in Government-furnished equipment available to DoD personnel when their Components first transitioned to maximum telework in mid-March 2020. However, the problems cited in survey responses lessened over time as the DoD increased its network availability and capacity, added voice and video conferencing applications, and purchased and distributed computer and communications equipment.

Based on the results of the survey and interviews with DoD officials, the DoD's initial challenges occurred because some DoD Components had not fully tested whether their information systems could support Government-wide mandated telework and had not conducted telework exercises with their personnel before March 2020 as required by the DoD Implementation Plan and the DoD Telework Policy. Therefore, some DoD Components were unprepared for the network and communications limitations, as well as equipment and application shortfalls, uncovered by the transition to maximum telework. While the Marine Corps, Defense Contract Audit Agency (DCAA), Defense Information Systems Agency (DISA), and the DLA were able to immediately transition to maximum telework, the Army, Navy, Air Force, Defense Contract Management Agency (DCMA), Defense Finance Accounting Service (DFAS), and DHA faced challenges during the transition.

The ability of DoD personnel to perform essential and non-essential tasks while on maximum telework depends on DoD Components' ability to provide enough network capacity, communication tools, and equipment to enable the DoD's essential and non-essential personnel to stay mission-ready and productive while in a telework status. Some teleworking personnel reported that they found their own alternative solutions including the use of unauthorized video conferencing applications and personal laptops, printers, and cell phones to complete their work because some DoD Components were unprepared for maximum telework. However, using unauthorized applications or sharing DoD information over improperly secured devices, even temporarily, increases the risk of exposing sensitive departmental information that could impact national security and DoD missions.

Overall, DoD Components and the majority of survey respondents expressed positive maximum telework experiences. Specifically, 88.1 percent of survey respondents stated that their productivity level remained the same or increased during maximum telework, regardless of their Component's initial telework challenges. Many survey respondents reported a desire to telework regularly in the future (37,146 responses) and expressed appreciation for commuting less often (27,711 responses), better work life balance (25,508 responses), and more flexible work hours (22,461 responses).

Telework Frequency Before and After the DoD's Transition to Maximum Telework

Approximately 88.2 percent of survey respondents reported that they had transitioned to full- or part-time telework during the COVID-19 pandemic. Of the 54,665 survey respondents, 3,368 (6.2 percent) reported teleworking full-time, and 32,522 (59.5 percent) reported teleworking part-time prior to the mid-March 2020 transition to maximum telework.¹⁸ After their Components' transition to maximum telework, 30,454 survey respondents (55.8 percent) reported teleworking full-time and 17,733 survey respondents (32.5 percent) reported teleworking part-time. Figure 1 illustrates the transition of the DoD workforce toward telework before and after the maximum telework directives.

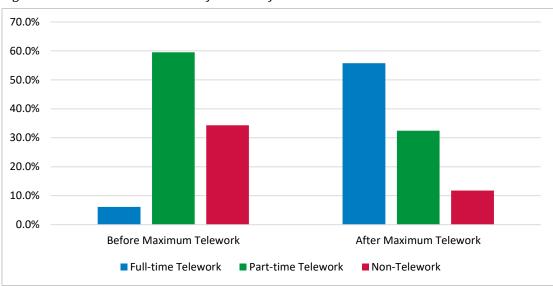


Figure 1. DoD Telework Status Before and After Transition to Maximum Telework

Source: The DoD OIG.

¹⁸ Part-time telework includes regularly scheduled part-time telework and situational (as needed) telework.

Of the 6,761 active duty military, reserve, and National Guard personnel who responded to the question, 4.4 percent reported teleworking full-time before the shift to maximum telework and 22.6 percent reported teleworking full-time after the transition. We also found an increase in reports of part-time telework, from 33.7 percent to 51.1 percent of military respondents. Figure 2 illustrates the increase in teleworking among military personnel after the directives to maximize telework.

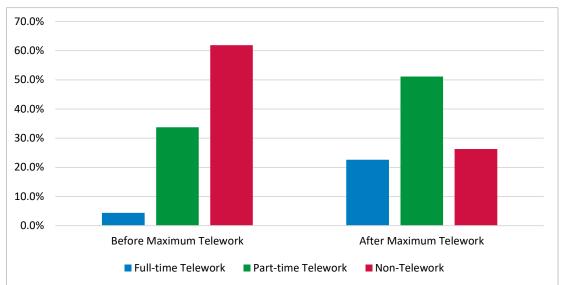


Figure 2. Military Personnel Telework Status Before and After Transition to Maximum Telework

Source: The DoD OIG.

Of the 47,894 civilian personnel who responded to the question, 6.4 percent reported teleworking full-time before the mid-March 2020 transition to maximum telework and 60.4 percent reported working full-time after the transition. As more civilian personnel moved to full-time telework, the number of part-time teleworking personnel fell from 63.1 percent before the transition to 29.8 percent after the transition to maximum telework. Similarly, the number of civilian personnel who reported that they were not permitted to telework or declined to telework fell from 30.4 percent before the transition to 9.7 percent after the transition to maximum telework. Figure 3 illustrates the increase in teleworking among civilian personnel after the directives to maximize telework.

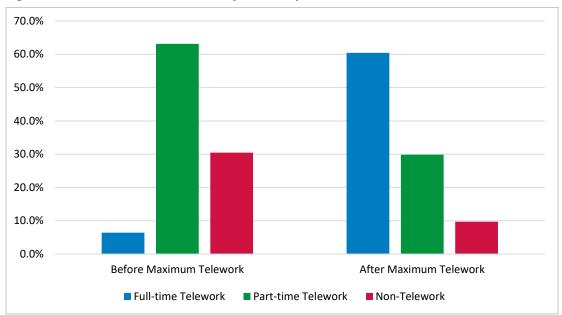


Figure 3. Civilian Personnel Status Before and After Transition to Maximum Telework

We asked survey respondents who reported teleworking part-time after the transition to maximum telework, why they were only able to telework part-time. Of the 17,733 survey responses for this question, the majority reported that they teleworked only part-time because they worked in shifts (5,792 responses), or needed access to resources (4,864 responses) or classified information (4,755 responses) to perform their work.¹⁹ Figure 4 illustrates the reasons survey respondents gave for teleworking only part-time after the transition.

¹⁹ For questions where the respondent was asked to check all answers that applied, we will present the results as the number of responses for each answer option.

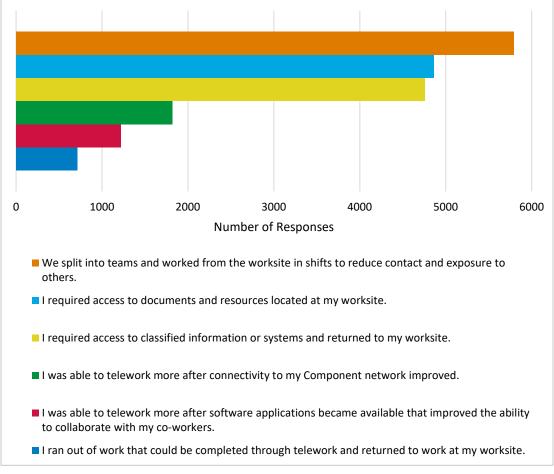


Figure 4. Reasons for Not Teleworking Full-Time After Transition to Maximum Telework

While 88.2 percent of survey respondents reported teleworking at least part-time, 11.8 percent of survey respondents reported that they did not telework at all after the transition to maximum telework. Of those 6,347 respondents who did not telework, 3,224 reported that they could not perform their work while teleworking and 1,671 reported that they were not eligible to telework. Survey respondents also reported other reasons for not teleworking, including simply not wanting to telework (656 responses), that they were not allowed to telework (421 responses), and a lack of equipment necessary to telework (415 responses). Figure 5 illustrates the breakdown of the reasons provided for not teleworking after the maximum telework directives.

Source: The DoD OIG.

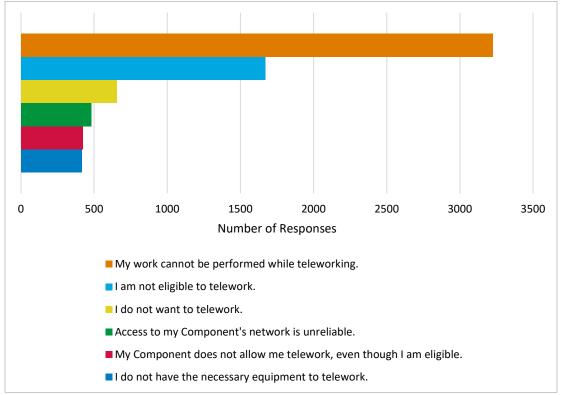


Figure 5. Reasons for Not Teleworking After Transition to Maximum Telework

Survey respondents provided comments on why they were not able to telework. Some respondents stated that their positions were essential or newly determined to be essential by management.

Our Command was not given the opportunity to telework. The [DoD Component] deemed all Marines are essential and we will all work during the COVID pandemic.

I work inventory and I'm not mission essential but was moved to mission essential when the [COVID-19] virus started getting bad. We here at [DoD Component] are the only inventory team working through this virus.

Others reported that their positions were not telework compatible because they were deployed or their job required a physical presence, such as police officers, mechanics, medical providers, and grocery store personnel.

Some survey respondents reported that their positions were not designated as telework eligible, they were told they were unauthorized to telework, or their supervisors discouraged telework. We also received a few comments stating that respondents did not know why they were unable to telework. My [job description] states I am not eligible to telework and my supervisor would not allow an exception during the COVID-19 pandemic even though \sim 80% of my job functions can be performed remotely with the current equipment I am furnished.

Our organization did not allow telework claiming it was "not feasible."

Telework has strongly been discouraged by supervisors.

Survey Responses Indicate Maximum Telework Improved Over Time

The survey included questions regarding the ability of personnel to access and maintain connectivity to DoD Component networks, the availability of communications and collaboration applications, and access to information technology equipment and support. Survey respondents reported problems accessing Component networks, voice and video teleconference applications, and Government-furnished equipment when their Components initially transitioned to maximum telework. However, survey respondents also reported that those problems lessened over time.

Network and Communications Accessibility

DoD personnel must have the ability to connect to Component networks to communicate and access information resources from a telework location. In addition, teleworking personnel must know how to connect remotely to their Component's network and how to use the available communications tools. Personnel access and share information necessary to perform their duties through the network connection and often rely on the same network connection to communicate with their teams using voice, teleconferencing, and video conferencing applications. The ability of personnel to successfully telework depends on Components' ability to provide enough network capacity for all of the above-discussed components of network and communications accessibility.

Remotely Connecting to Component Networks

DoD survey respondents reported that they experienced improvements over time connecting to their Component's network, as illustrated in Figure 6. The majority of survey respondents reported only minor problems connecting or no problems connecting to their Component's network at the beginning of maximum telework (65.4 percent) and at the time of the survey in August 2020 (84.2 percent). Only 13.8 percent of survey respondents reported having "many" problems connecting to their Component's network during the first 2 weeks of maximum telework.²⁰ By mid-August 2020, that number dropped to 2.8 percent of respondents.²¹

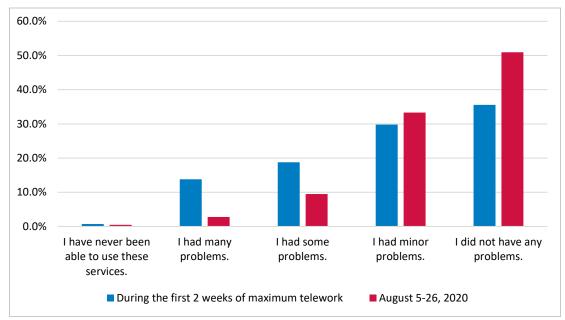


Figure 6. Experience Connecting to DoD Component Networks After Transition to Maximum Telework

While the majority of respondents had not experienced connectivity problems at the time of taking the survey, some DoD Components, such as the DCMA, initially experienced a substantial disruption that improved over time. The DCMA showed significant improvement in their network connectivity according to the survey results. Of the DCMA survey respondents, 48.7 percent reported having "many" problems and 26.1 percent reported having some problems connecting to the DCMA network during the first 2 weeks of maximum telework.²² At the time of the survey in August 2020, only 3.4 percent of respondents reported still having "many" problems and 9.3 percent reported having some problems, while 50.1 percent reported having no problems connecting to the DCMA network.²³ Figure 7 illustrates the DCMA survey responses on network connectivity.

Source: The DoD OIG.

A total of 47,365 survey respondents answered the question regarding their experience remotely connecting to their Component's network during the first 2 weeks after their Component transitioned to maximum telework.

²¹ A total of 47,375 survey respondents answered the question regarding their experience remotely connecting to their Component's network from August 5-26, 2020.

²² A total of 4,365 DCMA survey respondents answered the question regarding their experience remotely connecting to the DCMA network during the first 2 weeks after DCMA transitioned to maximum telework.

²³ A total of 4,360 DCMA survey respondents answered the question regarding their current experience remotely connecting to the DCMA network.

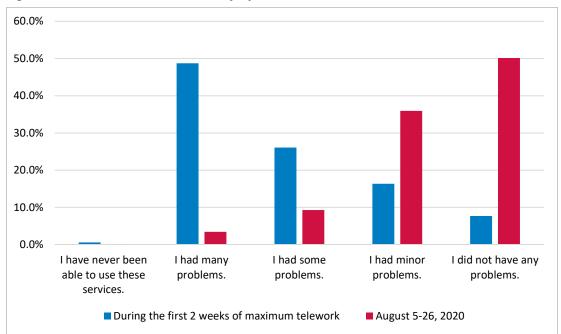


Figure 7. DCMA Network Connectivity After Transition to Maximum Telework

DoD survey respondents most frequently cited that they had problems with slow network speeds, intermittent connectivity, and software malfunctions while teleworking. During the first 2 weeks of teleworking, 33.9 percent of respondents stated that they experienced slow network speeds often or very often.²⁴ Five months later, 18.3 percent of respondents reported experiencing slow network speeds often or very often.²⁵ By August 2020, reports of intermittent connectivity more than 50 percent of the time declined from 22.6 percent to 8.5 percent and reports of software malfunctions more than 50 percent of the time declined from 17.9 percent to 9.2 percent. Figure 8 illustrates the problems reported by survey respondents during the first 2 weeks of maximum telework and Figure 9 illustrates the decrease in reports of the same problems at the time of the survey.

²⁴ From 29,493 to 29,537 survey respondents answered the questions regarding the frequency of problems connecting to their Component's network during the first 2 weeks after their Component transitioned to maximum telework.

²⁵ From 21,591 to 21,651 survey respondents answered the questions regarding the frequency of problems connecting to their Component's network from August 5-26, 2020.

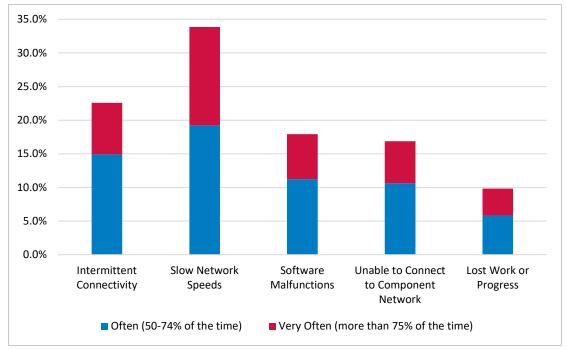
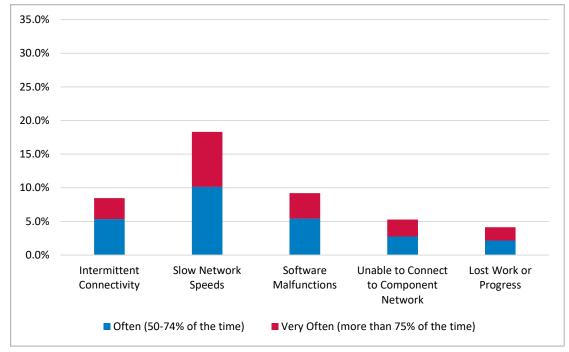


Figure 8. Reports of Network Problems During the First 2 Weeks of Maximum Telework

Source: The DoD OIG.

Figure 9. Reports of Network Problems in August 2020



Source: The DoD OIG.

Survey respondents also commented on their experiences remotely connecting to their Components' network, as illustrated in the following examples.

Network conditions were interrupting my work flow during the beginning of telework, but since the increase in the [Virtual Private Network] servers capabilities I have had no problems with working and coordinating with my team while on telework. I have found that online meetings through [S]kype/[W]ebex are actually more efficient because each team member can share their screen when necessary. Overall I have experienced nothing but positives with my telework experience.

In the beginning connection to the Network was so bad and at times non-existent. It has greatly improved and I am now able to work more streamlined to get back to a somewhat normal schedule.

Loss of connectivity and loss of software applications disrupts essential work flow. The inability of [DoD Component network] to correct Information Technology basic software malfunctions within a reasonable amount of time disrupts op tempo and is unsatisfactory for a world class organization.

Voice, Teleconferencing, and Video Conferencing

DoD survey respondents also reported that they experienced improvements over time in voice, teleconferencing, and video conferencing capabilities, as illustrated in Figure 10. Of the survey respondents, 29.0 percent reported experiencing many or some problems with voice and conferencing applications at the beginning of maximum telework.²⁶ Only 11.5 percent of survey respondents reported many or some problems by mid-August 2020.²⁷ The majority of respondents, 58.9 percent, reported only minor problems or no problems with voice, teleconferencing, and video conferencing applications during the first 2 weeks of maximum telework, and 77.5 percent reported only minor problems or no problems at the time of the survey.

²⁶ A total of 46,657 survey respondents answered the question regarding their experience remotely using voice, teleconferencing, and video conferencing applications during the first 2 weeks after their Component transitioned to maximum telework.

²⁷ A total of 47,120 survey respondents answered the question regarding their experience remotely using voice, teleconferencing, and video conferencing applications from August 5-26, 2020.

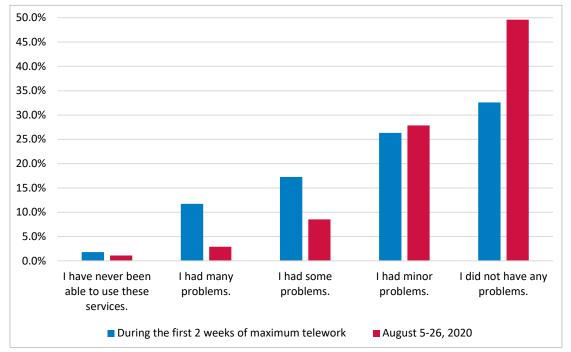


Figure 10. DoD Experience with Voice, Teleconferencing, and Video Conferencing Applications After Transition to Maximum Telework

At the Component level, survey respondents from the Air Force reported significant improvement over time when using voice, teleconferencing, and video conferencing applications. At the beginning of maximum telework, 37.5 percent of Air Force respondents reported having many or some problems with the applications.²⁸ By the time of the survey in mid-August 2020, that number had fallen to 11.7 percent of respondents, with 70.6 percent of respondents reporting only minor or no problems with voice, teleconferencing, and video conferencing applications.²⁹ Figure 11 illustrates the improved experience of Air Force survey respondents with these applications.

A total of 5,271 Air Force survey respondents answered the question regarding their experience remotely using voice, teleconferencing, and video conferencing applications during the first 2 weeks after the Air Force transitioned to maximum telework.

²⁹ A total of 5,352 Air Force survey respondents answered the question regarding their experience remotely using voice, teleconferencing, and video conferencing applications from August 5-26, 2020.

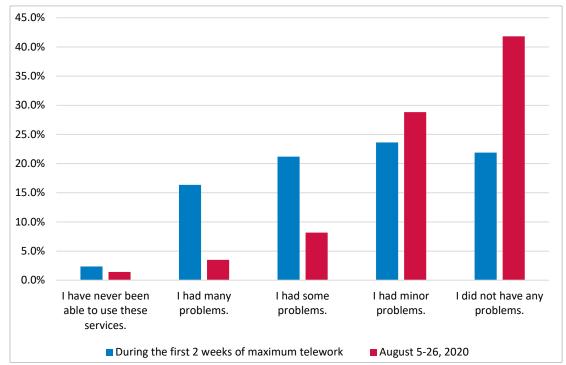


Figure 11. Air Force Experience With Voice, Teleconferencing, and Video Conferencing Applications After Transition to Maximum Telework

As illustrated in Figures 12 and 13, DoD survey respondents most frequently reported problems with voice, teleconference, or video conference applications malfunctioning, such as problems with the sound or an application freezing. However, survey respondents reported improvements in these applications over time. During the first 2 weeks of teleworking, 22.9 percent of respondents stated they experienced application malfunctions more than half the time.³⁰ Five months later, 10.6 percent of respondents reported experiencing application malfunctions more than half the time.³¹ Twenty three percent of survey respondents reported that they often or very often had problems connecting all meeting participants through teleconference applications in March 2020. Reports of problems connecting all participants declined to 9.1 percent by August 2020.

³⁰ From 26,364 to 26,435 survey respondents answered the questions regarding the frequency of problems when remotely using voice, teleconferencing, and video conferencing applications during the first 2 weeks after their Component transitioned to maximum telework.

³¹ From 18,922 to 18,980 survey respondents answered the questions regarding the frequency of problems when remotely using voice, teleconferencing, and video conferencing applications from August 5-26, 2020.

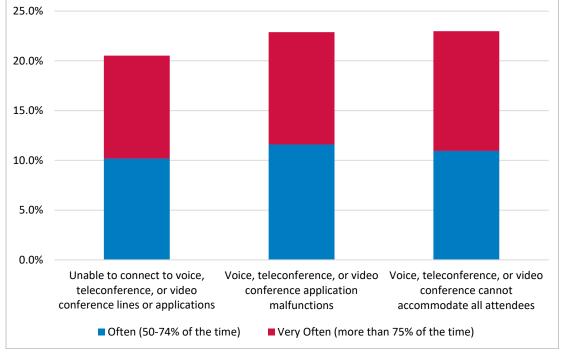
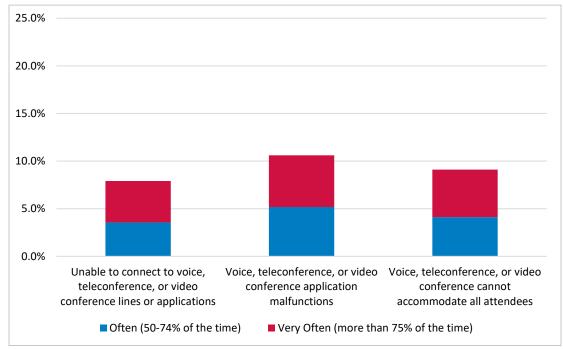


Figure 12. DoD Voice, Teleconferencing, and Video Conferencing Application Problems During the First Two Weeks of Maximum Telework

Figure 13. DoD Voice, Teleconferencing, and Video Conferencing Application Problems in August 2020



Source: The DoD OIG.

Access to Internet at Home Needed to Telework

Reliable, high-speed home Internet access is a critical element of successful telework for DoD personnel. However, according to DoD CIO officials, DoD Components have no control and DoD personnel have only limited control over the Internet service provider options available at their home. Additionally, Internet access is affected by traffic on the home network as well as the Internet service provider's performance. DoD Components can affect the adequacy of their networks; however, Components cannot impact the home networks of their personnel.

For example, DCAA and DFAS CIO officials explained that when personnel reported problems connecting to the network or experienced latency, frequently DoD Components' information technology support groups had difficulty determining whether the problem was caused by the Component's network or the employee's home network. DFAS information technology support group officials stated that DFAS teleworking personnel were occasionally unable to maintain network connectivity due to the overload of their home networks. Specifically, the DFAS information technology support group believed that often the bandwidth at an employee's home was shared with other users and devices, negatively impacting the employee's connection to the DFAS network. DCAA and DFAS CIO officials both recognized that home Internet access affects the ability of personnel to telework.

We received numerous comments from survey respondents regarding their Internet service at home. Some expressed a desire for the DoD to subsidize the expense of high-speed Internet connections required to telework. Other respondents noted that their rural locations and limited Internet options made teleworking more difficult, as illustrated in the following survey responses.

> This has worked for me because I have upgraded internet speed in my home, that I pay for. I have noticed that some of my colleagues don't have/didn't pay for that and constantly experience connectivity delays and interruptions. If teleworking continues I recommend the government issues some partial funding to people to upgrade their internet services so we don't experience significant downtime, low bandwidth and low connectivity speeds that effect our productivity and impact our frustration levels.

> Hard wired high speed internet is a necessity and not available in my area. The hot spot function on our cell phone has saved us.

As I live in a very rural area I only have access to a very basic high speed dial up and even through a satellite connection I am not offered the same speed of internet that those living in more urban area[s] are offered and can obtain. Would like to see some type of mandate for ALL citizen[s] to be offered the same high speed internet connection.

Equipment, Applications, and Information Technology Support

DoD personnel must have access to equipment, applications, and information technology support to successfully telework. DISA recommends that DoD personnel use Government-furnished equipment whenever possible, as well as Component-approved communication and collaboration applications when teleworking. The ability of personnel to follow DISA's guidance depends on Components' ability to provide the necessary equipment and applications and offer information technology support to their personnel.

Government-Furnished Equipment Shortfalls

We asked survey participants whether they had the Government-furnished equipment necessary to telework immediately, illustrated in Figure 14. Of the 46,753 respondents that answered, 79.2 percent stated that they already had the equipment they required. However, 13.9 percent had some, but not all of the equipment and 6.9 percent stated that they lacked the necessary equipment to begin maximum telework.

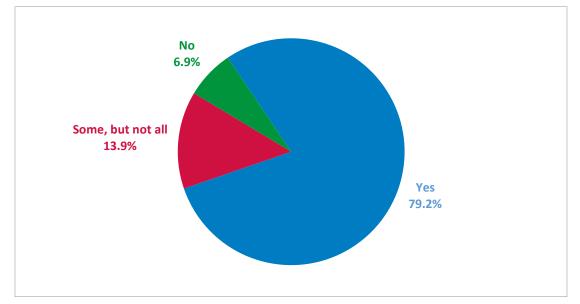


Figure 14. Availability of Government-Furnished Equipment at Beginning of Maximum Telework

Source: The DoD OIG.

Of the 9,739 respondents who reported that they did not have some or all of the Government-furnished equipment they needed, the most commonly requested items were Government-furnished monitors (3,595 responses), headsets (3,346 responses), and printers (2,758 responses), as illustrated in Figure 15. With the exception of Government-furnished laptops and Personal Identity Verification/Common Access Card readers, the majority of equipment requests had not been fulfilled at the time of the survey in August 2020.³²

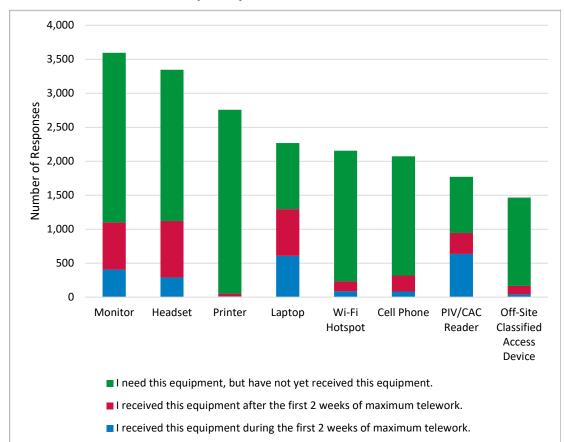


Figure 15. Government-Furnished Equipment That Survey Respondents Stated They Needed to Telework and Time of Receipt

Use of Personal Equipment for Official DoD Business

We also asked respondents what electronic devices they were using to perform their official DoD work while teleworking. By far, most respondents were using their Government-furnished laptops (43,428 responses) as illustrated in Figure 16. However, DoD Components, such as the Army, Navy, and Air Force could

Source: The DoD OIG.

³² Personal Identity Verification and Common Access Card readers are used to access the identity, e-mail, and encryption certificates stored on the standard identification card for active duty military personnel, selected Reservists, DoD civilian employees, and eligible contractor personnel.

not provide laptops to their entire workforce and encouraged their workforce without Government-furnished laptops to use the Microsoft Commercial Virtual Remote (CVR), which allowed personnel to use their personal computers and cell phones to perform unclassified work.³³ In addition, more respondents reported using their personal cell phones, monitors, printers, and headsets than the respective Government-issued equipment. Figure 15 illustrates the equipment survey respondents reported using to complete official DoD business while teleworking.

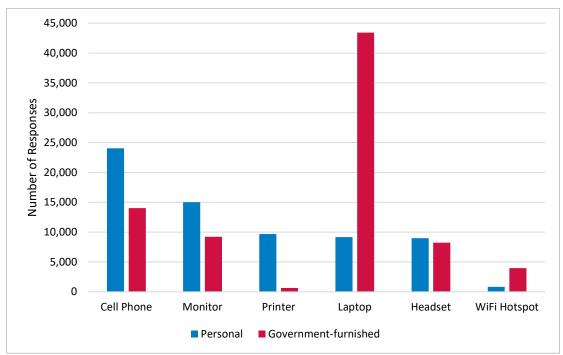


Figure 16. Equipment Used While Teleworking From March to August 2020

Source: The DoD OIG.

During maximum telework, the DoD has permitted the connection of some personal electronic devices to Government-furnished laptops, such as monitors, keyboards, and mice. Personal printers are explicitly excluded from the list of allowable devices; however, 9,666 respondents reported using their personal printers to perform official DoD business.

Of those who reported using their personal equipment, 17,461 survey respondents stated that they were doing so because they had not been issued equipment by the DoD, illustrated in Figure 17. Survey respondents also stated that using personal equipment was more convenient (10,000 responses), permitted by their

³³ CVR supports working remotely by providing chat, audio and video, and document share capabilities. In March 2020, the DoD CIO authorized DoD Components to use Microsoft Teams Commercial Virtual Remote (CVR) until September 15, 2020, which has been extended until June 2021.

Component (6,014 responses) and allowed them to use cameras, microphones, and other applications otherwise unavailable on their Government-furnished equipment (5,854 responses). In addition, DoD Component CIO officials stated that due to Government-furnished equipment (GFE) and application shortfalls, they permitted their workforce to use personal equipment to telework, to include laptops, cell phones, and monitors.³⁴

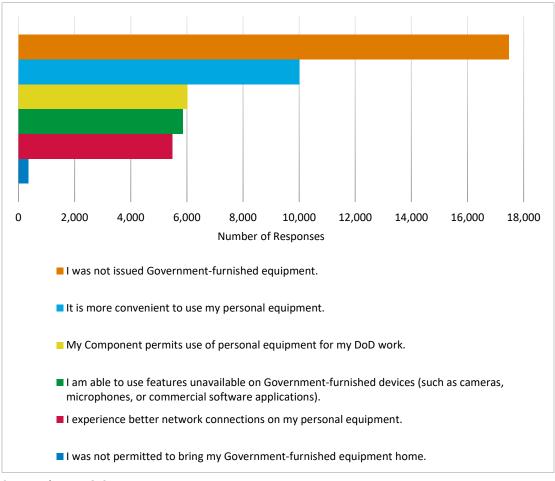


Figure 17. Reasons for Using Personal Equipment From March to August 2020

Applications

We asked survey respondents if they had access to the computer applications they needed to begin teleworking immediately, such as Virtual Private Network (VPN) applications for secure network connections, voice and video conferencing applications, and file sharing applications. The most commonly reported applications that respondents reported not having at the beginning of

Source: The DoD OIG.

³⁴ For the purpose of this evaluation, we used the term Government-furnished equipment as Government-owned or Government-leased equipment furnished to Government employees for their use in performing their official duties.

telework were file sharing applications (5,922 responses), voice teleconferencing applications (4,939 responses), and video conferencing applications (4,766 responses), illustrated in Figure 18.

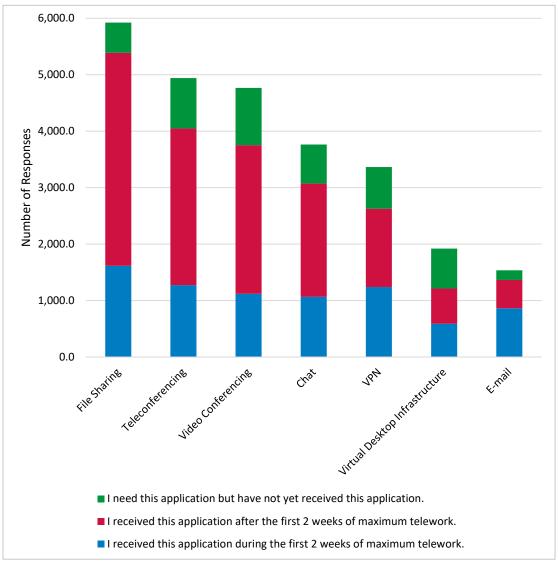


Figure 18. Most Requested Applications and Time of Receipt

Survey respondents also commented on the availability of applications, as illustrated in the following examples.

My job requires me to screen share with external parties (non-DOD) to observe accounting systems and electronic documents. My agency never provided any guidance on what programs/apps we could use to do this, how to use them, and what capabilities the apps have. My agency also never informed us which apps NOT to use (except zoom) so auditors were using all kinds of other applications for this purpose without knowing whether they were allowed/safe. Detailed

Source: The DoD OIG.

guidance would be appreciated in this area, as it has been 4 months and I still struggle with companies to give them instructions on how they can share their screen with me.

My current organization [omitted] is very supportive and the CVR/TEAMS application is exactly the tool I needed to be able to function properly and productively at my position. I'm so very grateful to have it now, and I just wish I could have had it when this all started.

For me the major point of frustration is when we are required to teleconference. Those that are hosting the event are not trained on how to use or administrate the application being used. Or use an application that is not intended for large groups. An example was a mandatory event with over 700 people in attendance using an application that only allows 350 users at a time. A 1-hour event turned into a 3-hour event with multiple crashes and restarts.

We asked survey respondents to rate their skill using teleworking applications when their DoD Components transitioned to maximum telework. The respondents were most proficient at using e-mail and VPN and least proficient at using voice, teleconferencing, and video conferencing applications.³⁵ Figure 19 illustrates how survey respondents rated their skill using the applications.

³⁵ Number of survey respondents who rated their skill for each application: 45,231 responses for e-mail; 40,722 responses for VPN; 19,488 responses for virtual desktop infrastructure; 27,191 responses for chat; 38,670 responses for file sharing; 31,307 responses for voice and teleconferencing; and, 25,834 responses for video conferencing.

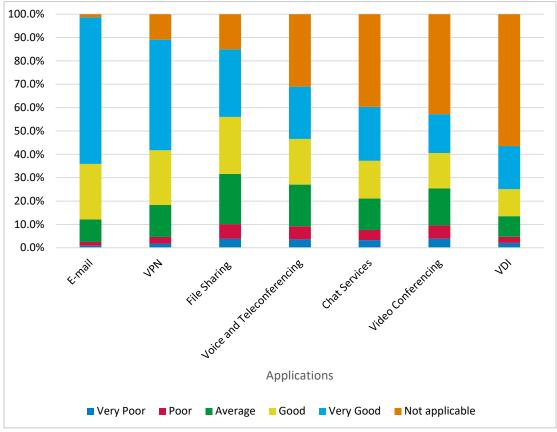


Figure 19. Skill Using Applications at Beginning of Maximum Telework

Source: The DoD OIG.

Information Technology Support

We asked survey respondents to describe the ability of their Component's information technology support or help desk to resolve any problems at the start of maximum telework and at the time of the survey. As illustrated in Figure 20, the majority of respondents found their Component's information technology support or help desk very able to resolve any problems during the first 2 weeks of teleworking, and that number has increased over time.

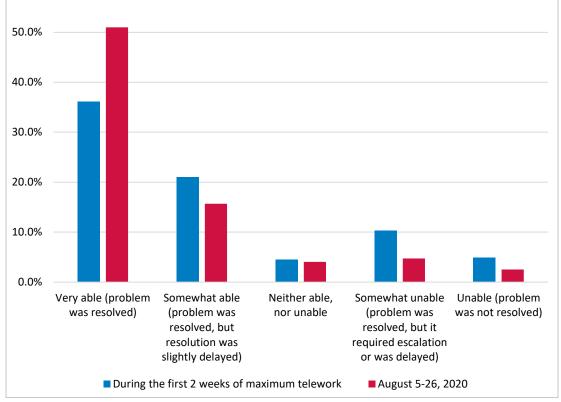


Figure 20. Component Help Desks' Ability, as Rated by Survey Respondents, to Resolve Information Technology Problems From March to August 2020

Source: The DoD OIG.

Some DoD Components Could Immediately Support Maximum Telework, Others Could Not

According to survey respondents and DoD Component CIO officials, some DoD Components were prepared to transition to maximum telework. Marine Corps, DISA, DCAA, and DLA CIO officials stated, and survey respondents confirmed, that these DoD Components had infrastructure in place to support maximum telework in March 2020. However, CIO officials for the Army, Navy, Air Force, DCMA, DHA, and DFAS stated that they could not provide sufficient network access, communications systems, or the necessary equipment in March 2020 and needed to increase their network capacity and infrastructure, provide communication capabilities, or acquire additional equipment to support maximum telework for their respective personnel.

The Marine Corps, DCAA, DISA and the DLA Could Immediately Support Maximum Telework

Marine Corps, DCAA, DISA, and DLA CIO officials stated that they were prepared for maximum telework. Each DoD Component tested its network capacity before the DoD transition to maximum telework due to the COVID-19 pandemic and provided its personnel with the network and communications infrastructure, as well as the equipment needed, to support their teleworking personnel. Survey respondents' answers generally aligned to the statements from these Component CIO officials. For example, 71.8 percent of Marine Corps respondents and 82.8 percent of DLA respondents reported having only minor problems or no problems connecting to their Component's network during the first 2 weeks of maximum telework. In addition, 75.1 percent of DISA respondents reported having only minor problems or no problems with DISA's voice, teleconferencing, and video conferencing applications during the first 2 weeks of maximum telework. Of the DCAA respondents, 92.4 percent reported that they had all the Government-furnished equipment necessary to begin teleworking immediately.

Marine Corps CIO officials stated that they experienced minimal problems with network access, communication, or equipment shortfalls when transitioning to maximum telework because they had planned for it. Prior to the COVID-19 pandemic, Marine Corps CIO officials stated that from 2018 to 2020, they began transitioning their personnel to Microsoft Office 365, to provide their personnel with remote network connectivity and communications while working in a degraded environment, such as a pandemic. Marine Corps CIO officials added that many Marine Corps personnel had already transitioned from desktops to laptops and had the necessary equipment prior to the transition needed to perform maximum telework. In addition, Marine Corps CIO officials stated that they performed tests on their systems and increased their VPN licenses in early March 2020 to prepare for an increase in teleworking personnel.

Similarly, DCAA CIO officials stated that the DCAA was prepared to support a maximum teleworking environment, as most of its personnel already worked remotely prior to the pandemic. DCAA officials stated that they upgraded or replaced their workforce VPN licenses in December 2019, tested their teleworking capabilities prior to the COVID-19 pandemic, and determined they could provide adequate bandwidth and communications resources. In addition, DCAA officials stated that the DCAA's mission requirements positioned the agency to transition to maximum telework without having to acquire additional network capacity, communications capabilities, or additional equipment.

DISA issued a pandemic influenza plan in May 2009, to preserve and maintain its operational capabilities in the event of a pandemic influenza event. The DISA plan requires extensive telework availability, the means to telework from an alternate worksite, and emergency essential contract support. DISA CIO officials stated that DISA has been prepared to support network access, communications, and providing equipment to teleworking personnel since 2010. According to DISA CIO officials, 2,352 (approximately 16 percent) of DISA's personnel teleworked prior to the transition to maximum telework and 12,644 (approximately 86 percent) of its personnel teleworked after the transition to maximum telework, teleworking DISA personnel had the necessary GFE to telework. In addition, 4.3 percent of DISA survey respondents reported teleworking full-time and 78.9 percent reported working part-time prior to the transition to maximum telework. After the transition to telework, 66.0 percent of DISA survey respondents reported working full-time and 32.0 percent reported teleworking part-time.

In February 2020, the DLA issued a pandemic plan that states the DLA's intent to maintain full operational capabilities during a pandemic event and to consider maximizing telework capabilities for essential personnel. In addition, DLA policy requires each DLA organization to review their telework capabilities and assess resource requirements such as personnel, equipment, and supplies. As of March 2020, 15,160 (approximately 63 percent) of DLA personnel were teleworking.³⁷ According to DLA CIO officials, they did not experience problems with network capacity, but needed to increase video conferencing capability from approximately 200 connections in March 2020 to 500 connections in June 2020 to support the increase in teleworking personnel utilizing video teleconferencing applications.

The Army, Navy, Air Force, DCMA, DFAS, and DHA Could Not Immediately Support Maximum Telework

According to Army, Navy, Air Force, DCMA, DFAS, and DHA CIO officials, they faced challenges during the initial transition to maximum telework. Survey responses indicated significant issues with network accessibility and teleconferencing during the first 2 weeks of maximum telework. For example, 38.9 percent of Navy respondents, 74.8 percent of DCMA respondents, and 22.4 percent of DHA respondents reported having some or many problems with network accessibility during the first 2 weeks of maximum telework. In addition, 26.8 percent of Army respondents and 37.5 percent of Air Force respondents reported some or many problems with voice, teleconferencing, and video conferencing applications during the first 2 weeks of maximum telework.

³⁶ As of April 2020, DISA had approximately 14,700 employees, including military, civilian, and contractor personnel.

³⁷ As of March 2020, the DLA had approximately 24,000 employees.

Army CIO officials stated that Army personnel experienced difficulties connecting to the Army network through VPN during the initial transition to maximum telework. To address network access limitations, the Army acquired CVR licenses and other video conferencing and business meeting software licenses for platforms such as Zoom, WebEx, and GoToMeeting. The Army also acquired 1.3 million Microsoft Teams CVR licenses, which allowed personnel to use their personal computers to perform unclassified work.³⁸ Additionally, Army CIO officials stated that the Army had a shortage of approximately 8,396 Government-furnished unclassified laptops, in addition to other peripheral equipment such as headsets and webcams, when it transitioned to maximum telework. From March to June 2020, the Army CIO purchased additional information technology equipment to reduce these shortfalls.

Navy CIO officials stated that Navy personnel experienced difficulties connecting through VPN to Navy networks when their personnel first transitioned to maximum telework in March 2020. By late April 2020, the Navy CIO had increased the Navy's VPN capacity to 123,000 users, which was sufficient to support the peak VPN usage of approximately 98,275 users. In addition, Navy CIO officials stated that approximately 132,000 personnel did not have laptops and needed to take their office desktops home with added software to have full telework functionality. Some personnel relied on applications such as CVR to telework while using their personal computers. Navy CIO officials stated that they purchased approximately 100,000 laptops to help with the equipment shortfall.

Air Force CIO officials stated that in early March 2020, they starting planning for approximately 700,000 personnel to transition to maximum telework due to the COVID-19 pandemic, which required them to increase their VPN capacity to support the increased number of teleworking personnel. Air Force CIO officials stated that although they had sufficient bandwidth to allow their personnel to access its network, Air Force personnel experienced problems with voice, teleconferencing, and video capabilities when they transitioned to maximum telework. Air Force CIO officials stated that they used CVR to improve their voice, teleconferencing, and video capabilities. In addition, Air Force CIO officials recognized that they had a shortfall of GFE, only having approximately 250,000 laptops and phones at the start of the pandemic. Air Force CIO officials stated that on March 28, 2020, local Air Force units were authorized to procure laptops to supply their teleworking personnel. In addition, Air Force CIO officials directed those personnel who did not have GFE to use CVR and connect with their personal devices during maximum telework.

³⁸ CVR supports working remotely by providing chat, audio, video, and document share capabilities. In March 2020, the DoD CIO authorized DoD Components to use Microsoft Teams Commercial Virtual Remote (CVR) until September 15, 2020, and then extended the use of CVR first through December 15, 2020, and then again until June 2021.

According to DCMA officials, only 4,000 of 9,200 DCMA teleworking personnel could connect to the DCMA network when the DCMA first transitioned to maximum telework.³⁹ In May and June 2020, DCMA CIO officials added 10,000 VPN licenses and began using new VPN software to connect to the DCMA network. By July 2020, all teleworking DCMA personnel could connect to the DCMA network. DCMA CIO officials also reported that they have had adequate teleconferencing and video conferencing capabilities and GFE for their personnel since the transition to maximum telework.

According to DFAS CIO officials, teleconferencing capabilities were occasionally unavailable or limited during the transition to maximum telework because DFAS did not have sufficient teleconferencing resources. To overcome teleconferencing capacity limitations, DFAS CIO officials directed their teleworking personnel to schedule conferencing meetings throughout the day and week to avoid high usage hours. In addition, DFAS CIO officials stated that DFAS did not have the bandwidth capacity to offer video conferencing applications to its personnel. Instead, DFAS used Skype to conduct virtual audio meetings.

DHA CIO officials stated that during the first 2 weeks of maximum teleworking, DHA Headquarters personnel experienced limitations connecting to DHA networks. A DHA VPN report, provided by DHA officials on August 3, 2020, identified 7,834 reported VPN problems for DHA Headquarters personnel during their first two weeks of maximum telework. In addition, according to DHA CIO officials, DHA Headquarters personnel located at the Pentagon could not consistently connect through VPN because the Joint Service Provider managed network utilized by DHA routed these personnel through a single Internet access point, causing slow and intermittent network performance. DHA CIO officials also stated they upgraded the DHA Headquarters network in April 2020, which improved network access and resolved network connection limitations. DHA CIO officials also stated that they had adequate communications capabilities and GFE for their personnel during maximum telework.

Some DoD Components Did Not Fully Test Telework Capabilities

Some DoD Components were unprepared to transition to maximum telework because they had not fully tested their telework capabilities before March 2020 as required by the DoD Implementation Plan for Pandemic Influenza and the DoD Telework Policy. Although some DoD Components were in a better position than others to immediately support teleworking personnel, not all

³⁹ As of September 2020, the DCMA had approximately 12,000 employees.

DoD Components had tested whether their information systems could support Government-wide mandated telework or conducted telework exercises with their personnel. Therefore, some DoD Components were unprepared for the network and communications limitations, as well as equipment and application shortfalls, experienced during the transition to maximum telework.

The Army, Navy, Air Force, DCMA, DFAS, and DHA were unprepared for maximum telework because they did not fully test their telework capabilities in accordance with their own pandemic plans and the DoD Telework Policy to identify and correct any network and communication limitations or application and equipment shortfalls before March 2020. The Army pandemic plan requires Army Headquarters Staff Agencies to develop a telework capability, which includes building the required remote access capacity to support a determined number of teleworking personnel.⁴⁰ However, Army CIO officials did not test their pandemic response plan before the COVID-19 pandemic.

The Navy pandemic plan requires the Commander of the Navy Installations Command to support an increased number of teleworking personnel and resource requirements in a pandemic environment.⁴¹ Navy CIO officials stated that the Navy did not test information technology and communications or identify the number of personnel expected to telework in a maximum telework environment before March 2020. Navy CIO officials stated that they did conduct an inclement weather test that stressed the network and identified network connectivity and bandwidth limitations. However, these Navy CIO officials also stated that they did not correct these problems because of funding constraints.

Air Force CIO officials stated that the Air Force pandemic plan did not identify the number of personnel expected to telework or require testing of information technology and communications capabilities to support maximum telework. Though not part of the pandemic plan, Air Force CIO officials stated that they performed telework capability assessments in early March 2020, in preparation for a potential teleworking environment in response to the COVID-19 pandemic. Air Force CIO officials stated that the March 2020 assessments identified that Air Force VPN usage rates were sufficient to support their current teleworking personnel, but needed to be increased for a maximum telework environment.

The DHA pandemic guidance requires the evaluation of mission essential functions that can be performed remotely and on-site to continue DHA operations while teleworking during a pandemic.⁴² The pandemic guidance also required DHA

⁴⁰ Headquarters, Department of the Army Continuing Operations Plan, Annex 8 to Annex C, "Pandemic Influenza-Infectious Disease," May 1, 2018.

⁴¹ Office of the Chief of Naval Operations Instruction 3500.41A, "Pandemic Influenza and Infectious Disease Policy," November 18, 2018.

⁴² DHA Continuity of Operations Plan Annex J, "Pandemic Preparedness and Planning," September 2018.

officials to provide their teleworking personnel with the network accessibility and communications resources to perform essential functions during a pandemic. The DHA pandemic guidance also provides the option for employees not involved with mission essential functions to telework during a pandemic. However, DHA CIO officials stated that because 20 percent of DHA's workforce routinely teleworks, DHA networks capacity is tested. The DHA Director reemphasized the DHA pandemic guidance in a March 5, 2020 policy memorandum to DHA headquarters personnel.⁴³ According to DHA officials, prior to the COVID-19 pandemic, the DHA performed network connectivity assessments and upgraded its network capacity in anticipation of the increase in teleworking personnel. However, DHA CIO officials stated that the DHA headquarters staff connecting through a Joint Service Provider managed network utilized by DHA experienced connection issues due to network infrastructure problems. DHA CIO officials also stated that personnel who did not have experience using telework tools, such as VPN, initially experienced difficulty using the tools to connect to the network.

DFAS issued a pandemic response policy in September 2017 to plan for and respond to a pandemic event that requires DFAS personnel to telework when DFAS facilities are not accessible. Specifically, the policy instructs DFAS to maintain operations, services, and communications during a pandemic. The policy requires site directors to develop and annually review plans to evaluate telework capabilities, needed equipment, and the optimal use of communications resources. DFAS officials stated that they met on March 4, 2020, to discuss the results of the pandemic plan assessments performed in September and October 2019. According to DFAS CIO officials, the results of the pandemic plan assessment identified that they could only support network access for up to 9,000 of the identified 9,400 eligible teleworking DFAS personnel. Despite the shortfall, DFAS CIO officials stated that they continued normal monitoring of their system status and performance and did not experience significant network accessibility problems during the transition to maximum teleworking while supporting 10,713 teleworking personnel.

The DCMA issued its pandemic plan in March 2020. The DCMA pandemic plan requires the DCMA to identify the portion of DCMA personnel who can perform their work via telework and identify essential personnel who must report to their duty station.⁴⁴ According to DCMA CIO officials, the DCMA performed assessments for some of its pandemic plan, but relied on DoD Force Health Protection Supplements and Centers for Disease Control and Prevention containment guidance before

⁴³ DHA Memorandum for Agency Personnel, "Defense Health Agency Employee Pandemic Infectious Disease Response Guidance," March 5, 2020.

⁴⁴ DCMA Pandemic Plan, May 2, 2020.

preparing its networks for maximum teleworking. In addition, DCMA CIO officials stated that they met on March 3, 2020, to discuss their response to the COVID-19 pandemic. DCMA officials also stated they used vendor-recommended network connectivity assessments to determine expected VPN traffic and used network monitoring tools to monitor network connections. However, the DCMA did not test whether it could support all teleworking personnel prior to the COVID-19 pandemic, according to DCMA CIO officials.

The DoD Implementation Plan does not require that DoD Component Pandemic Plans identify the expected number of teleworking personnel or the resources necessary to support maximum teleworking during a pandemic. Therefore, the ASD(HD&GS) should revise the DoD Implementation Plan for Pandemic Influenza planning assumptions to reflect the use of telework for essential and non-essential personnel during the COVID-19 pandemic and to align the DoD Implementation Plan for Pandemic Influenza with the DoD Telework Policy. In addition, the ASD(HD&GS) should direct the Military Departments and Defense Agencies to update their Pandemic Plans to include the revised assumptions regarding telework for essential and non-essential personnel and the resources required to support the teleworking workforce.

The DoD Implementation Plan also does not include oversight procedures for DoD Component Pandemic Plans. Therefore, the Under Secretary of Defense for Policy [USD(P)], in coordination with the Under Secretary of Defense for Personnel and Readiness, should establish management oversight procedures to verify the testing, training, and exercise requirements of the DoD Implementation Plan for Pandemic Influenza and the DoD Telework Policy. The oversight procedures should assess DoD Components' ability to support Government-wide mandated telework, including the results from tests of network and communications systems and telework exercises with personnel.

The Impact of Maximum Telework on the DoD

The ability of DoD personnel to execute their mission while on maximum telework depends on the DoD Components' ability to provide enough network capacity, communications tools, and equipment to enable the DoD's essential and non-essential personnel to stay mission-ready and productive while in a telework status. Some teleworking personnel found their own alternative solutions including the use of unauthorized video conferencing applications and personal laptops, printers, and cell phones to complete their work because some DoD Components were unprepared for maximum telework. While not all of these devices connect directly to the DoD network, using unauthorized applications to host meetings or sharing DoD information over improperly secured devices, even temporarily, increases the risk of exposing sensitive DoD information that could impact national security and DoD missions. The Components that were unprepared had to work quickly to acquire the necessary network capacity, equipment, and applications to support the large increase of teleworking personnel. Despite the network, equipment, and application shortfalls, some teleworking personnel responded that their productivity increased while teleworking. Overall, most survey respondents expressed positive sentiments regarding their teleworking experience.

Personnel Relied on Alternative Solutions

We asked survey respondents if they had access to the software applications they needed to begin teleworking immediately when their Component transitioned to maximum telework. We also asked respondents if they used any alternative solutions, such as video conferencing software or file sharing applications other than those made available by their Component, to perform their work while teleworking during the COVID-19 pandemic. As illustrated in Figure 21, the most popular alternative solution among respondents was for commercial video conferencing services, such as Zoom. Of those respondents who reported that they used a video conferencing service not provided by their Component, 65.0 percent of respondents who used such applications also reported that their Component provided all the applications that they required.

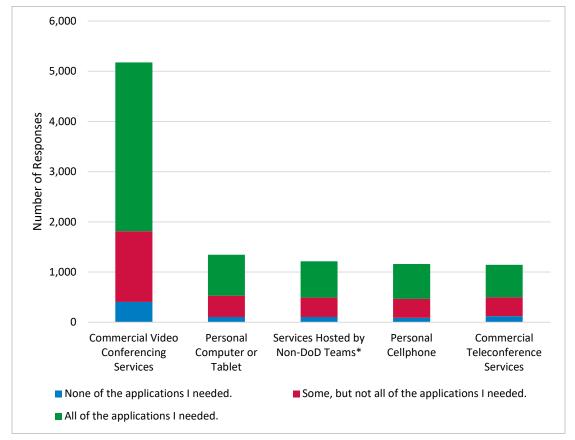


Figure 21. Alternative Solutions Used and Access to Necessary Applications From March to August 2020

 * Non-DoD Teams refers to software or communication services owned or hosted by contractors, clients, or other Government agencies providing resources for electronic communication for DoD personnel.
 Source: The DoD OIG.

We also asked survey respondents why they used these alternative solutions. As illustrated in Figure 22, the most popular reasons among respondents were that DoD computers or networks were too slow and that it was easier to collaborate when using an alternative solution while teleworking. Again, 65.4 percent of respondents who stated that DoD computers or networks were too slow also reported that their Component provided all applications that they needed to telework. Of those respondents who reported that they were directed by their supervisor or Component to use the alternative solution, 63.3 percent also reported that they had all the applications necessary for telework. However, the use of personal devices can introduce vulnerabilities into the DoD Information Network. Using unauthorized applications or sharing DoD information over improperly secured devices, even temporarily, increases the risk of exposing sensitive departmental information that could impact national security and DoD missions.

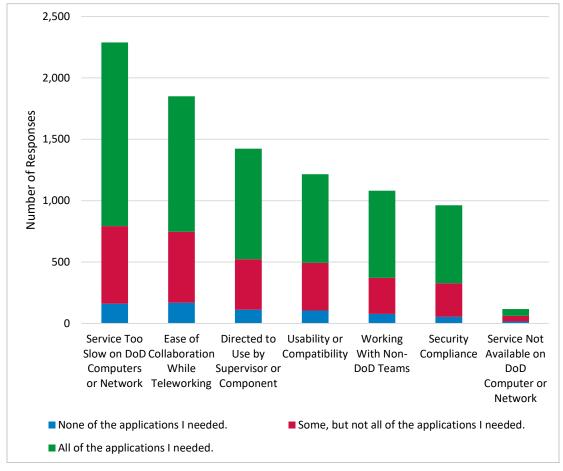


Figure 22. Reasons for Use of Alternative Solutions and Access to Necessary Applications From March to August 2020

Source: The DoD OIG.

Improvements Necessary for Successful Telework

We asked survey respondents to identify what improvements they felt were needed to successfully telework.⁴⁵ Figure 23 illustrates these responses. Survey respondents most frequently cited the need for additional Government-furnished equipment, such as laptops, monitors, or mobile devices. Additionally, while DoD Components increased their network capacity to support telework, many survey respondents would like to see more improvement to DoD network accessibility.

⁴⁵ Survey respondents could provide more than one answer.

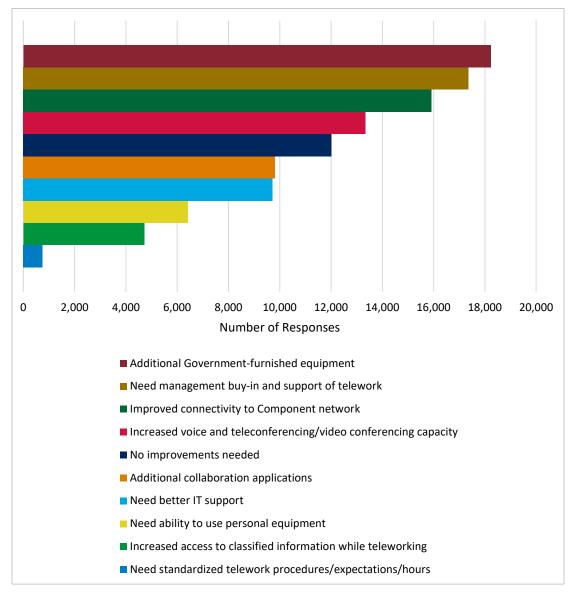


Figure 23. Improvements Needed For Successful Telework

Source: The DoD OIG.

Survey respondents also frequently reported the need for management buy-in and support of telework, as in the following examples.

Management needs to allow employees to telework. Trusting employees is key. Instead of saying no management needs to accept change, COVID-19 has shown we can telework and still accomplish our mission for the real property office.

Management that rids itself of their self-imposed psychological barriers ("We've never done it that way" or "work means people need to leave home and come to the organization's brick and-mortar facility; r[i]d themselves of poor management skills, like considering staff to have earned their keep if they come to a building (although they may have produced little tangible product), and learning how to manage based on production vs presence at a location).

Many survey respondents stated they would like to see more information technology support including training on how to use the applications, as illustrated in the following comments.

I'm not computer [savvy], IT support and training to load and use CVR, [SharePoint] would help a lot. You can't use what [you're] unable to load.

I didn't use the collaborations tools because I didn't know how to use them . . . perhaps better training on that. Also, I'm supposed to work with the public so training on how to host and navigate through webinars, approved software to reach out to the public (YouTube), Best practices for working with the public at a distance.

Increased Productivity and Newfound Efficiencies

We asked survey respondents to rate whether their productivity level had increased, remained the same, or decreased while teleworking during the COVID-19 pandemic compared to their productivity level before maximum telework. As illustrated in Figure 24, of the 45,521 responses, 41.1 percent reported that their productivity remained the same; 47.0 percent reported that their productivity increased while teleworking; and 11.9 percent felt their productivity had decreased while working remotely.

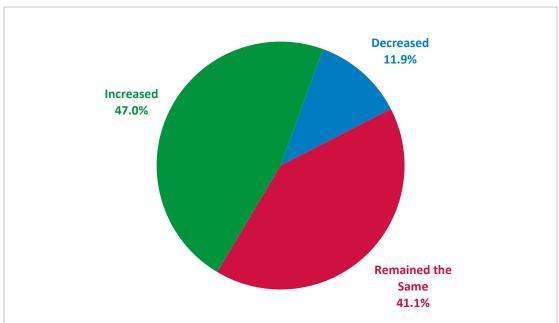


Figure 24. Productivity Level During Maximum Telework

We also received 18,350 comments to the question about productivity.⁴⁶ Of 10,882 respondents who reported an increase in productivity and left a comment, 78.8 percent credited fewer interruptions and distractions as the reason for their increased focus on work and 25.7 percent reported that teleworking has eliminated unnecessary meetings and forced process improvements, such as moving from paper to electronic processes, increasing efficiency. Respondents made the following example comments on the survey, related to productivity.

My productivity has increased significantly during maximum telework. Office interruptions have been eliminated, allowing me to focus on tasks to completion. In addition, I have more energy and time available for work since I no longer have to commute to the office.

Productivity and quality has improved for now. Process efficiency has been enhanced as colleagues have become more focused and accountable than they were previously.

A lot of unnecessary meetings, taskers, efforts which had been made a priority were no longer requested. Several TDYs were no longer held. Move to more virtual admin process has improved speed/flow of information.

Other comments from those who responded to the productivity question included appreciation for better health and work-life balance (11.8 percent), the elimination of their commute to the office (17.4 percent), and the ability to accomplish more work during the day (28.7 percent), as illustrated in the following sample comments.

I've been able to get more sleep since teleworking since I don't have to commute to work. That extra sleep really has helped me stay more focused and productive at work while teleworking.

I have experienced better work-life balance, and that has resulted in me enjoying my work more. Telework has promoted a healthier lifestyle since I can spend the time I commute on being active. Overall full-time telework has drastically improved my work productivity and life overall.

I get more work done at home then I do at the office. I go into the office a couple times a week and I'm reminded by all the distractions. It was honestly shocking how much work my agency was able and still is able to complete at home. And by the way, we work felony level investigations but are still able to get a majority of work done at home.

⁴⁶ Survey respondents had the option to provide a text response to the multiple-choice question on productivity.

As illustrated in Figure 25, 84.3 percent of those who reported having network connectivity issues during the first 2 weeks and 83.1 percent of those reporting network issues at the time of the survey still reported a similar or increased level of productivity while teleworking.

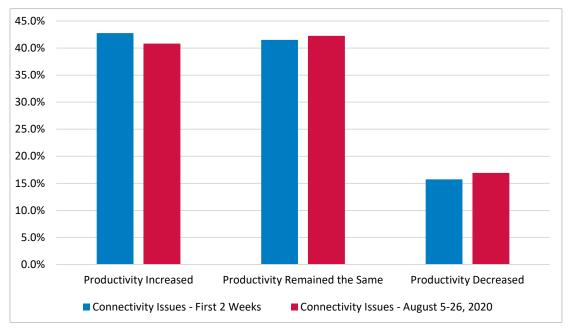


Figure 25. Impact of Network Connectivity on Productivity From March to August 2020

Source: The DoD OIG.

Similarly, voice, teleconferencing, and video conferencing connectivity issues did not adversely affect productivity levels while teleworking as illustrated in Figure 26. Of the respondents who reported voice and conferencing connectivity issues during the first 2 weeks of maximum telework, 85.1 percent also reported a similar or increased level of productivity. That number dropped slightly to 83.1 percent for those reporting voice and conferencing issues in mid-August 2020.

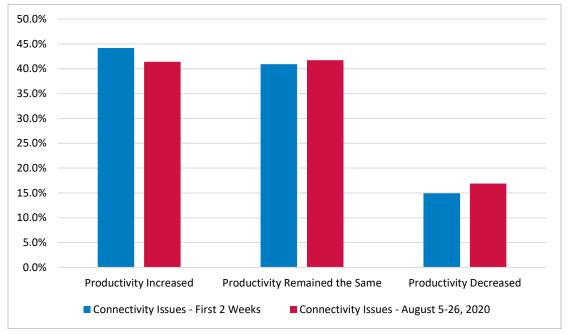


Figure 26. Impact of Voice, Teleconferencing, and Video Conferencing Connectivity on Productivity

Source: The DoD OIG.

DoD Personnel Report Positive Maximum Telework Experience

Overall, survey respondents provided positive remarks about their telework experience. Of the participants providing written comments at the end of our survey, 80.3 percent were positive remarks while 19.7 were negative remarks. The majority of the positive remarks were on the topics of increased productivity (35.6 percent), better work-life balance (31.1 percent), and more flexibility in their workday (26.0 percent).

> Max telework, at least for our program, is an outstanding way to reduce the physical footprint required for office space while increasing productivity and quality. Everybody wins!

> Telework has greatly increased my productivity and work-life balance. Technological advancements have allowed employees to seamlessly collaborate and accomplish the mission remotely.

> It has been outstanding, to be honest. 20-25 hours per week in additional time I used to spend commuting. Extra sleep, extra spare time, and yes... extra work. Even if I run over 50 hours a week, I'm considerably better off than commuting plus 40 hours in the office. I can't speak for the organization as I don't have those metrics, but as for me, production numbers are up and life is just better.

The majority of the negative responses were about information technology support (28.6 percent), issues related to management (20.2 percent), and increased workloads (19.3 percent). The following are examples of negative sentiment regarding telework shared by respondents.

Bad IT support at every point when one needs it the most.

Joint Service Provider (DC region DOD network provider) performance during this entire pandemic time has been bad. Connectivity speeds and dependability have been and continue to be slow and intermittent, and customer service has been almost useless. Technicians do not seem very knowledgeable.

Micromanagement is rampant.

From a management perspective, maximum telework created additional challenges, as illustrated in the following comments.

Permanent telework has increased productivity for those who work very independently but has decreased productivity for those with families and who require a lot of oversight. Being a supervisor in this environment has been extremely difficult as employees avoid contact and are not always forthcoming about status of items It has highlighted problem personnel.

Difficulty dealing with subordinate employees. I am a supervisor and currently, I have . . . government civilians that are not doing work while teleworking and there is no recourse during this time to ensure they stay busy. If we were not in this environment, it would be easier to address, but since we are in the mandatory telework environment, this employee is basically doing no work and still getting paid. In my honest opinion, it is waste, fraud and abuse.

Poor performers have not gone unnoticed by their co-workers, as exemplified in the following comments.

It feels like there is minimal oversight on employees who would normally be held to certain timelines and quality of work, and now they can do what they want without consequence. If the tele-work is going to continue there needs to be tighter and more controlled oversight on the tele-working employees to ensure the mission happens without fail or delay.

Hold coworkers accountable to actually perform work rather than make excuses to not work. If they cannot connect, then they need to be in the office and monitored closely. It's become imbalanced on the amount of work coworkers perform, and Leadership isn't holding them accountable. Finally, we asked survey respondents what aspects of teleworking, if any, they would like to see continue after the end of maximum telework.⁴⁷ As illustrated in Figure 27, regular telework as part of their work schedule was the most common aspect reported by 37,146 respondents. Many respondents also reported appreciation for commuting less often (27,711 responses) as well as better work-life balance (25,508 responses) and more flexible work hours (22,461 responses) because of maximum telework.

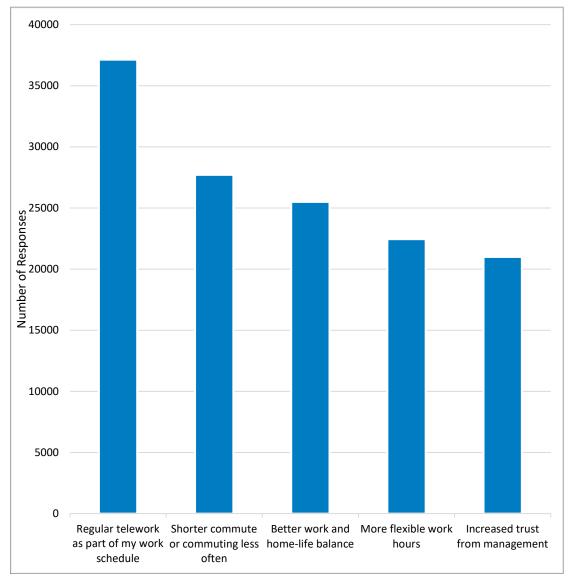


Figure 27. Aspects of Teleworking That Respondents Would Like to Continue

Source: The DoD OIG.

⁴⁷ Survey respondents could provide more than one answer.

In comments to the question, some survey respondents gave more specific examples of what they would like the future of telework to look like. Multiple respondents commented that they would like to be able to telework from anywhere, citing benefits to the DoD including talent retention, employee satisfaction, and cost reduction. The following survey comments represent examples of the desired future telework environment.

> I would like to see the government expand telework capabilities to allow government employees to work from anywhere in the US and not be stuck in certain geographical locations. Example, I live in NY, [I] would like the option to live in Florida for example.

> Our Agency has employees all over the world. When I go to my office, I sit in my office and work with our employees from my government computer and phone. I do the exact same thing when I am teleworking. There is no need for the government to pay for a large office for me when I can do the same thing at home on a regular to full-time basis. Further, being a military spouse and mother of 3, being able to telework provides a great work-life balance for me (no commute time, etc.). I believe that to attract and retain talented people, that may not be able to work your traditional 40-60 hours a week physically in the office, telework and a focus on results versus "[butts] in seats" should be the norm. If I can't trust an employee to get quality work done from offsite, then I likely cannot trust them to get quality work done while onsite. It seems counter-intuitive to me, and contrary to supporting the need for the most talented and flexible workforce, to restrict telework merely because that is "how it's always been done." It also causes a decrease in morale.

> We MUST change the way we look at where, how, and when work is done if we're going to compete with other federal agencies and the private sector for talent. It's a well known fact that more liberal use of telework/virtual work is an enormous employee satisfier, increases employee engagement and retention. Young people in high demand/low density skills do not want to work the way DoD traditionally works, and we desperately need that talent in DoD.

Recommendations, Management Comments, and Our Response

Recommendation 1

We recommend that the Assistant Secretary of Defense for Homeland Defense and Global Security revise the "DoD Implementation Plan for Pandemic Influenza" to:

a. Update the planning assumptions in the DoD Implementation Plan for Pandemic Influenza to include the use of telework for essential and non-essential personnel and to align the DoD Implementation Plan for Pandemic Influenza with the DoD Telework Policy, Enclosure 3, Section 3(i)(2).

Assistant Secretary of Defense for Homeland Defense and Global Security Comments

The Deputy Under Secretary of Defense for Policy (DUS[P]), responding for the Assistant Secretary of Defense for Homeland Defense and Global Security, did not agree or disagree, stating that the ASD(HD&GS) would work with the Joint Staff and the U.S. Northern Command to include the use of telework for essential and non-essential personnel in the Functional Campaign Plan–Pandemics and Infectious Diseases, which will replace the DoD Implementation Plan for Pandemic Influenza, and align the plan with the DoD Telework Policy. The DUSD(P) also stated that the ASD(HD&GS) would work with the Joint Staff to include the use of telework for essential and non-essential personnel in the Global Integration Framework–Pandemics and Infectious Diseases.

Our Response

Although the DUSD(P) did not agree or disagree, her comments addressed all specifics of the recommendation; therefore, the recommendation is resolved, but remains open. We will close the recommendation once the ASD(HD&GS) updates the Functional Campaign Plan–Pandemics and Infectious Diseases and the Global Integration Framework–Pandemics and Infectious Diseases to include the use of telework for essential and non essential personnel.

b. Require DoD Components to update their Pandemic Plans to include the revised assumptions regarding telework for essential and non essential personnel and the resources required to support the teleworking workforce.

Management Comments Required

The Deputy Under Secretary of Defense for Policy, responding for the the Assistant Secretary of Defense for Homeland Defense and Global Security, did not respond to the recommendation. Therefore, the recommendation is unresolved. We request that the ASD(HD&GS) provide comments on the final report.

Recommendation 2

We recommend that the Under Secretary of Defense for Policy, in coordination with the Under Secretary of Defense for Personnel and Readiness, establish management oversight procedures to verify that DoD Components have performed the testing, training, and exercise requirements of the DoD Implementation Plan for Pandemic Influenza and the DoD Telework Policy. The oversight procedures should assess the ability of DoD Components to support Government-wide mandated telework, including the results from tests of network and communications systems and telework exercises with personnel.

Under Secretary of Defense for Policy Comments

The Deputy Under Secretary of Defense for Policy, responding for the Under Secretary of Defense for Policy, did not agree or disagree, stating that her office would support and advocate for oversight procedures to verify that DoD Components have performed the testing, training, and exercise requirements of the Global Integration Framework-Pandemics and Infectious Diseases, the Functional Campaign Plan-Pandemics and Infectious Diseases, the DoD Telework Policy, and the Pandemic Plans. The DUSD(P) also stated that the Office of the Secretary of Defense for Personnel and Readiness is the lead for this effort.

Our Response

Although the DUSD(P) did not agree or disagree, her comments addressed all specifics of the recommendation; therefore, the recommendation is resolved, but remains open. We will close the recommendation once the USD(P) provides the oversight procedures for verifying that DoD Components have performed the required testing, training, and exercises.

Appendix A

Scope and Methodology

We conducted this evaluation from June 2020 through February 2021 in accordance with the "Quality Standards for Inspection and Evaluation," published in January 2012 by the Council of Inspectors General on Integrity and Efficiency. Those standards require that we adequately plan the evaluation to ensure that objectives are met and that we perform the evaluation to obtain sufficient, competent, and relevant evidence to support the findings, conclusions, and recommendations. We believe that the evidence obtained was sufficient, competent, and relevant to lead a reasonable person to sustain the findings, conclusions, and recommendations.

We interviewed CIO officials for 10 DoD Components— the Army, Navy, Air Force, Marine Corps, DISA, DLA, DCAA, DFAS, DCMA, and DHA—to determine how they transitioned to a maximum telework environment. We selected those 10 DoD Components because each had the largest workforce within our selection criteria for the DoD population described below. The CIO offices of each Component were responsible for providing information technology and communications resources to their respective personnel.⁴⁸ We conducted the interviews from July 20, 2020, through December 1, 2020, and discussed user access to, and the availability of the Non-Secure Internet Protocol Router Network, voice and teleconferencing capabilities, and equipment and applications needed to support a maximum telework environment from March 15, 2020, through June 15, 2020.

In addition, we reviewed Component-specific pandemic plans to determine whether the plans addressed maintaining network communications and purchasing adequate equipment and communications applications in the event of a pandemic. We also reviewed whether DoD Component CIO officials implemented their respective pandemic plans to transition their personnel to maximum telework during the COVID-19 pandemic.

Methodology for Determining the Population of DoD Personnel to Survey

We surveyed civilians, active duty personnel, reservists, and National Guard members from DoD Components to determine DoD personnel access to, and the availability of, the DoD Non-secure Internet Protocol Router Network and voice communications. To identify the survey population, we requested that the Defense Manpower Data Center query the Defense Enrollment Eligibility Reporting

⁴⁸ We did not include the Intelligence Community or the Defense Commissary Agency in the top 10 DoD Components.

System (DEERS) database for a listing of personnel with active DoD Common Access Cards as of April 30, 2020.⁴⁹ On May 18, 2020, the DCMC provided a list of 3.6 million active DoD personnel. We analyzed the list and removed the following personnel who were outside the scope of this evaluation.

- Personnel with Non-DoD Service codes (Foreign Military and Coast Guard).
- Personnel with personnel codes other than DoD military or civilian, and individuals with e-mails ending in ".gov," because the scope of this engagement only included DoD Government personnel.
- Personnel without an e-mail address assigned to their account, because we would not be able to contact them.
- Personnel with DoD Office of Inspector General e-mail accounts, to ensure there was no perceived conflict of interest.
- Personnel with duplicate e-mail addresses because we would not be able to determine which individual responded to the survey.
- Personnel associated with the Intelligence Community, including the National Security Agency, the Defense Intelligence Agency, the National Reconnaissance Office, and the National Geospatial-Intelligence Agency, because we did not want to include sensitive data in the population.⁵⁰

After removing those personnel, the population totaled approximately 2.6 million DoD personnel. See Table 1 for the population by DoD Component.

DoD Component						
Personnel Type	Army	Navy	Air Force	Marine Corps	DoD 4th Estate	Total
Active Duty	470,224	325,164	327,071	127,415	-	1,249,874
Reserves	180,031	58,712	64,330	20,941	-	324,014
Guard	294,589	-	96,119	-	-	390,708
Civil Service	235,887	196,521	156,440	17,097	90,630	696,575
Total	1,180,731	580,397	643,960	165,453	90,630	2,661,171

Source: The DoD OIG.

⁴⁹ The DEERS database is a DoD system managed by the Defense Manpower Data Center that tracks DoD Common Access Card holders within the DoD. We decided to pull personnel from the list of active DoD Common Access Cards because all DoD personnel are required to have a Common Access Card to access the network.

⁵⁰ Although we removed the Intelligence Community from our population, we still received some responses from individuals in the Intelligence Community. In addition, we noticed that some personnel identified themselves as working for a different organization than what was indicated in the DEERS database. In these cases, we used the organization that the individual identified.

Methodology for Selecting Sample of DoD Personnel to Survey

We used stratified random selection to reduce potential biases as we identified and conducted the survey of DoD personnel. In summary, we developed 14 samples for the Military Services and selected all DoD personnel from the Fourth Estate, including the Defense agencies and field activities that remained in the DoD population.⁵¹

For the Military Service sampling methodology, we used a 99-percent confidence level, a planning error rate of 50 percent, and a precision or margin of error of 5 percent. Using these parameters, we determined that we required a minimum survey response for each sample of between 639 and 663 individuals. We anticipated a survey response rate of only 5 percent so we increased the sample size by a multiple of 20 to ensure we received sufficient responses for each sample. Each sample for the Military Services had approximately 13,000 individuals (except for Active Duty Navy, which had 7,612 because after we issued the survey we determined that there were 5,648 e-mails sent to the domain @training.navy.mil that Max.gov could not deliver the survey to). Table 2 shows the number of individuals invited to participate in the survey by Military Service and the DoD Fourth Estate.

DoD Component						
Personnel Type	Army	Navy	Air Force	Marine Corps	DoD 4th Estate	Total
Active Duty	13,260	7,612	13.260	13,220	-	47,352
Reserves	13,240	13,140	13,140	12,880	-	52,400
Guard	13,240	-	13,180	-	-	26,420
Civil Service	13,240	13,240	13,220	12,780	90,630	143,110
Total	52,980	33,992	52,800	38,880	90,630	269,282

Table 2. Number of Individuals Surveyed

Source: The DoD OIG.

Survey Administered to DoD Personnel

We invited 269,282 DoD military and civilian personnel to take the survey shown in Appendix C of this report. We developed the survey based on preliminary research on teleworking and an internal test of the survey. We coordinated our survey with the DoD offices responsible for surveys across the DoD, including Washington Headquarters Services, the Defense Human Resources Activity, the Defense Human Resources Activity Human Research Protection Program, and the

⁵¹ The Fourth Estate comprises organizational entities that are not part of the Military Departments or Combatant Commands. These include the Office of the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, the Joint Staff, the DoD Office of Inspector General, and Defense Agencies and Field Activities.

Office of People Analytics. To maximize survey responses from DoD Components, we reached out to the DoD Components approximately 2 weeks before the survey began to explain the importance of the survey, ask the Components to notify their personnel of the upcoming survey, and to encourage participation.

On August 5-6, 2020, we sent e-mail invitations to participate in the survey to the 269,282 DoD military and civilian personnel. Each invitation included a link to the survey containing a unique token that prevented personnel from completing the survey more than once. We sent a reminder e-mail each week for the next 3 weeks to personnel who had not yet completed the survey. The survey closed at midnight on August 26, 2020. We received 56,057 survey responses for an overall response rate of 20.8 percent.

Survey Responses and Bias of Survey Results

We received 56,057 survey responses for an overall response rate of 20.8 percent. We considered the potential bias associated with survey respondents' responses (response bias) and those individuals that did not respond to the survey or to a question in the survey (non-response bias). Specifically, individuals in a survey sample could differ in a statistically meaningful way based on an existing predisposition. For example, response bias in our survey most likely presents as extreme or misled answers from survey respondents. Conversely, non-response bias in our survey most likely exists as individuals who have not experienced significant information technology and communication issues are less likely to respond to the survey. As a result, it is more likely that we heard from respondents who had significant issues with their information technology equipment and communications. Consequently, the sample results are likely to be skewed and biased toward those that have issues. We do not know, nor are we able to calculate, how prevalent response bias and non-response bias are in the survey data.

Use of Computer-Processed Data

To obtain our survey population, we requested that the Defense Manpower Data Center query DEERS for all personnel with a DoD Common Access Card. We interviewed Defense Manpower Data Center officials to understand the data elements collected through the query and ensure no errors occurred during the transmission of the query data. In addition, we discussed the process for how data are entered into DEERS and reviewed its system accreditation package.⁵²

⁵² The DEERS accreditation package includes the DoD Risk Management Framework Security Assessment Report, which shows how many vulnerabilities the DEERS database has, how significant those vulnerabilities are, and the recommended actions to take to correct or mitigate the vulnerabilities.

DEERS is an essential system, which serves as a centralized DoD data repository of personnel and medical data. The DEERS database contains detailed personnel eligibility information for benefits and entitlements distributed to Uniformed Services members; U.S.-sponsored foreign military members; DoD and Uniformed Services civilians; other personnel as directed by the DoD; and their eligible family members. DEERS is authorized to operate through October 16, 2021. After reviewing the accreditation package, we determined that the data from DEERS was reliable for the purposes of determining a sample of individuals for issuing our survey.

In addition to DoD Component CIO official statements during our interviews, these officials also provided computer processed supporting documentation related to providing network accessibility and access to equipment and communication systems and resources. However, we did not make conclusions based on this data, but assessed the data provided in addition to their statements. As a result, we did not assess the reliability of the data.

Use of Technical Assistance

The DoD OIG Quantitative Methods Division and the Data Analytics Team supported this evaluation. The Quantitative Methods Division developed our population and created a stratified random sample. We received sufficient survey responses from each DoD Component that allowed us to report the survey results.

The Data Analytics Team also reviewed the survey responses and developed a dashboard to help us analyze the survey results. They used natural language processing techniques to process responses to open-ended questions and identify themes that related to our evaluation objective. The Data Analytics Team also used text-cleaning methods to normalize punctuation, special characters, English stop words (such as prepositions and articles), white space, numbers, acronyms, and contractions. They then analyzed survey response data to highlight trends by comparing responses to different questions to determine how the responses were related to each other.

Prior Coverage

No prior coverage has been conducted on access to DoD information technology and communications during a pandemic or maximum telework during the last 5 years.

Appendix B

Question	Answer Options Number of Respons			
Demographic Information				
	ct your DoD Affiliation. <i>(If you have more than one affiliat</i> that corresponds with the e-mail address used for your sur			
Choose one	Military	7,323		
	Civilian	48,734		
"Military"	tary Service are you affiliated with? (Answer this question to question 1. If you have more than one affiliation, please ponds with the e-mail address used for your survey invitate	e choose the affiliation		
Choose one	Army (Active Duty)	589		
	Army (National Guard)	242		
	Army (Reserve)	282		
	Marine Corps (Active Duty)	979		
	Marine Corps (Reserve)	231		
	Navy (Active Duty)	670		
	Navy (Reserve)	486		
	Air Force (Active Duty)	1,425		
	Air Force (National Guard)	1,212		
	Air Force (Reserve)	895		
	Space Force	12		
telework, p answered	NOT working for your Military Service when it transitione please select the Component you were working for. (Answ "Military" to question 1. If you have more than one affiliat that corresponds with the e-mail address used for your sur	ver this question if you tion, please choose the		
Choose one	Not applicable	49,049		
	Army	1,076		
	Marine Corps	1,198		
	Navy	1,111		
	Air Force	3,457		
	Space Force	15		
	Africa Command	3		
	Central Command	19		
	Cyber Command	7		
	European Command	13		

Question	Answer Options	Number of Responses
	Indo-Pacific Command	13
	Northern Command	5
	Southern Command	3
	Space Command	1
	Special Operations Command	15
	Strategic Command	2
	Transportation Command	4
	Defense Advanced Research Projects Agency	2
	Defense Commissary Agency	-
	Defense Contract Audit Agency	-
	Defense Contract Management Agency	1
	Defense Counterintelligence and Security Agency	1
	Defense Finance and Accounting Service	-
	Defense Health Agency	5
	Defense Human Resources Activity	2
	Defense Intelligence Agency	1
	Defense Information Systems Agency	7
	Defense Legal Services Agency	-
	Defense Logistics Agency	9
	Defense Media Activity	1
	Defense POW/MIA Accounting Agency	-
	Defense Security Cooperation Agency	-
	Defense Security Service	-
	Defense Technical Information Center	-
	Defense Threat Reduction Agency	3
	Defense Technology Security Agency	-
	DoD Education Activity	3
	Joint Chiefs of Staff	3
	Joint Staff	4
	Missile Defense Agency	-
	National Geospatial-Intelligence Agency	1
	National Reconnaissance Office	7
	National Security Agency/Central Security Service	4
	Pentagon Force Protection Agency	1

Question	Answer Options	Number of Responses
	Office of the Secretary of Defense	8
	Office of Inspector General	1
	Test Resource Management Center	-
	Washington Headquarters Service	1
	Other (open text)	-
to questior	pponent are you affiliated with? (Answer this question if y a 1. If you have more than one affiliation, please choose th Is with the e-mail address used for your survey invitation.)	
Choose one	Army	4,189
	Marine Corps	5,376
	Navy	4,845
	Air Force	7,221
	Space Force	120
	Africa Command	18
	Central Command	37
	Cyber Command	35
	European Command	27
	Indo-Pacific Command	41
	Northern Command	26
	Southern Command	12
	Space Command	17
	Special Operations Command	66
	Strategic Command	31
	Transportation Command	35
	Defense Advanced Research Projects Agency	56
	Defense Commissary Agency	1,043
	Defense Contract Audit Agency	2,709
	Defense Contract Management Agency	4,577
	Defense Counterintelligence and Security Agency	19
	Defense Finance and Accounting Service	5,237
	Defense Health Agency	1,704
	Defense Human Resources Activity	612
	Defense Intelligence Agency	17
	Defense Information Systems Agency	2,984
	Defense Legal Services Agency	169

Question	Answer Options	Number of Responses
	Defense Logistics Agency	8,993
	Defense Media Activity	169
	Defense POW/MIA Accounting Agency	151
	Defense Security Cooperation Agency	203
	Defense Security Service	7
	Defense Technical Information Center	91
	Defense Threat Reduction Agency	589
	Defense Technology Security Agency	37
	DoD Education Activity	117
	Joint Chiefs of Staff	61
	Joint Staff	297
	Missile Defense Agency	1,494
	National Geospatial-Intelligence Agency	2
	National Reconnaissance Office	
	National Security Agency/Central Security Service	
	Pentagon Force Protection Agency	139
	Office of Economic Support	2
	Office of the Secretary of Defense	1,171
	Office of Inspector General	3
	Test Resource Management Center	5
	Washington Headquarters Service	454
	Other (open text)	
	er field were you working in when your Component transit (Please choose the category that best fits your job title.)	tioned to maximum
hoose one	Accounting, Auditing, Budgeting	8,984
	Administrative Support	4,323
	Arts, Communication, Media	763
	Aviation	2,350
	Business Operations (including Purchasing, Contracting Officers)	7,314
	Combat	459
	Computers and Information Technology	6,831
	Construction and Engineering	2,257
	Education	1,203
	Electronics and Electrical	910

Question	Answer Options	Number of Responses
	Facilities and Equipment	1,148
	Food Service	257
	Human Resources	2,587
	Inspections, Investigations, Enforcement, and Compliance	2,194
	Intelligence and Combat Support	1,340
	Legal and Law Enforcement	1,731
	Mechanical and Industrial Technology	879
	Medical, Hospital, Dental, and Emergency	1,911
	Musician	22
	Ministry, Religious Programs	64
	Sciences (Physical, Biological, Social, Mathematical, Space)	1,925
	Service Industries (other than food services)	472
	Transportation and Logistics	4,571
	Veterinary Medical Sciences	15
	No Response	818
	Other career field (open text)	6
Telework Sta	tus	
6. Before you	r Component transitioned to maximum telework, how	v often did you telework?
Choose one	I teleworked full-time.	3,368
	I teleworked on a scheduled, part-time basis.	14,509
	I teleworked as needed (situational telework).	18,013
	I declined to telework.	2,829
	I was not allowed to telework.	11,908
	Not applicable	4,028
	No Response	1,402
	ime your Component transitioned to maximum telewo orked at any time?	ork to the present, have
Choose one	Yes	48,228
	No	6,437
	No Response	1,392

Question	Answer Options	Number of Responses
frequently	me your Component transitioned to maximum telework to t have you teleworked? (Only answer this question if you selec at any time since your Component transitioned to maximum	ted "Yes" that you
Choose one	I teleworked full-time during that period.	30,454
	I teleworked most of the time and worked from my worksite some of the time.	8,791
	I teleworked half the time and worked from my worksite half of the time.	3,563
	I teleworked some of the time and worked from my worksite most of the time.	5,379
	No Response	7,870
question if	you been unable to telework during the COVID-19 panden you selected "No" that you did not telework at any time su d to maximum telework to question 7.)	
Choose all	I do not have Internet access from home.	114
that apply	I do not have the necessary equipment to telework.	415
	My work cannot be performed while teleworking.	3,224
	My Component does not allow me telework, even though I am eligible.	421
	My supervisor does not allow me to telework, even though I am eligible.	41
	I am not eligible to telework.	1,671
	I do not want to telework.	656
	I prefer not to answer.	565
	Unreliable network access.	475
	I was not told to telework.	22
	Not Applicable	48,228
	No Response	90
transition	you telework for only part of the period from the time you red to maximum telework to the present? (Only answer th t "I worked full-time during the period" to question 8.)	
Choose all that apply	I was able to telework more after connectivity to my Component network improved.	1,818
	I was able to telework more after software applications became available that improved the ability to collaborate with my co-workers.	1,217
	We split into teams and worked from the worksite in shifts to reduce contact and exposure to others.	5,792
	I required access to classified information or systems and returned to my worksite.	4,755

Question	Answer Options	Number of Responses
	I required access to documents and resources located at my worksite.	4,864
	I ran out of work that could be completed through telework and returned to work at my worksite.	709
	I ran out of work that could be completed through telework and went on leave.	36
	I am hoteling.	111
	No Response	41
	Not Applicable	6,437
Network Acc	essibility and Teleconferencing	
after you <i>you selec</i>	scribe your experience for the following activities during t r Component transitioned to maximum telework: (Only an ted "Yes" that you teleworked at any time since your Comp n telework to question 7.)	nswer this question if
Remotely con	necting to your Component network	
Choose one	I did not have any problems.	16,845
	I had minor problems.	14,113
	I had some problems.	8,884
	I had many problems.	6,535
	I have never been able to use these services.	330
	Not applicable	658
	No Response	8,692
Remotely usin	ng voice, teleconferencing, and video conferencing applica	tions
Choose one	I did not have any problems.	15,203
	I had minor problems.	12,287
	I had some problems.	8,057
	I had many problems.	5,470
	I have never been able to use these services.	842
	Not applicable	4,798
	No Response	9,400

Question	Answer Options	Number of Responses		
12. Please estimate how frequently you experienced the following problems when remotely using voice, teleconferencing, and video conferencing applications during the first 2 weeks after your Component transitioned to maximum telework: (Only answer this question if you selected you had problems remotely connecting to your Components Network or "I was never able to use these services" to question 11.)				
Unable to con	nect to Component network			
Choose one	Never	2,618		
	Rarely	15,324		
	Sometimes	6,592		
	Often	3,135		
	Very Often	1,843		
	No Response	26,545		
Intermittent C	Connectivity to Component			
Choose one	Never	1,266		
	Rarely	13,485		
	Sometimes	8,118		
	Often	4,408		
	Very Often	2,260		
	No Response	26,520		
Slow Network	Speeds			
Choose one	Never	2,432		
	Rarely	9,078		
	Sometimes	7,997		
	Often	5,671		
	Very Often	4,321		
	No Response	26,558		
Software malf	functions			
Choose one	Never	5,541		
	Rarely	12,570		
	Sometimes	6,106		
	Often	3,313		
	Very Often	1,977		
	No Response	26,550		

Question	Answer Options	Number of Responses
Lost work pro	ogress	
Choose one	Never	10,715
	Rarely	11,868
	Sometimes	4,011
	Often	1,723
	Very Often	1,176
	No Response	26,564
using voie after you <i>selected</i> y	timate how frequently you experienced the following prob ce, teleconferencing, and video conferencing applications of r Component transitioned to maximum telework: <i>(Only an</i> you had problems remotely using voice, teleconferencing, a ons or <i>"I have never been able to use these services" to que</i>	during the first 2 weeks swer this question if you nd video conferencing
Unable to cor	nnect to voice, teleconference, or video conference lines of	or applications
Choose one	Never	3,444
	Rarely	11,988
	Sometimes	5,580
	Often	2,690
	Very Often	1,920
	Always	813
	No Response	29,622
Voice, teleco	nference, or video conference application malfunctions	
Choose one	Never	3,113
	Rarely	11,37
	Sometimes	5,90
	Often	3,06
	Very Often	2,11
	Always	86
	No Response	29,62
Voice, telecoi	nference, or video conference cannot accommodate all at	tendees
Choose one	Never	5,63
	Rarely	9,709
	Sometimes	4,96
	Often	2,88
	Very Often	2,218
	Always	950
	No Response	29,69

Question	Answer Options	Number of Responses
this quest	scribe your current experience for the following activities tion if you selected "Yes" that you teleworked at any time ted to maximum telework to question 7.)	
Remotely con	necting to your Component network	
Choose one	I did not have any problems.	24,124
	I had minor problems.	15,782
	I had some problems.	4,503
	I had many problems.	1,318
	I have never been able to use these services.	232
	Not applicable	1,416
	No Response	8,682
Remotely usir	ng voice, teleconferencing, and video conferencing application	ations
Choose one	I did not have any problems.	23,376
	I had minor problems.	13,134
	I had some problems.	4,030
	I had many problems.	1,378
	I have never been able to use these services.	523
	Not applicable	4,679
	No Response	8,937
remotely selected y	timate how frequently you currently experience the follow connecting to your Component's network: (Only answer you had problems remotely connecting to your Componen e to use these services" to question 14.)	this question if you
Unable to cor	nnect to Component network	
Choose one	Never	2,442
	Rarely	15,514
	Sometimes	2,553
	Often	594
	Very Often	368
	Always	180
	No Response	34,406

Question	Answer Options	Number of Responses
Intermittent	Connectivity to Component	
Choose one	Never	1,131
	Rarely	14,602
	Sometimes	4,079
	Often	1,157
	Very Often	523
	Always	152
	No Response	34,413
Slow Network	Speeds	
Choose one	Never	2,105
	Rarely	10,423
	Sometimes	5,126
	Often	2,188
	Very Often	1,091
	Always	681
	No Response	34,443
Software mal	functions	
Choose one	Never	4,118
	Rarely	11,984
	Sometimes	3,525
	Often	1,170
	Very Often	620
	Always	196
	No Response	34,444
Lost work pro	gress	
Choose one	Never	8,580
	Rarely	10,364
	Sometimes	1,755
	Often	465
	Very Often	300
	Always	127
	No Response	34,466

Question	Answer Options	Number of Responses
remotely (Only ans teleconfe	timate how frequently you currently experience the follo using voice, teleconferencing, and video conferencing a wer this question if you selected you had problems remot rencing, and video conferencing applications or "I have n vices" to question 14.)	pplications: tely using voice,
Unable to con	nect to voice, teleconference, or video conference lines	or applications
Choose one	Never	3,233
	Rarely	11,895
	Sometimes	2,344
	Often	675
	Very Often	441
	Always	387
	No Response	37,082
Voice, telecor	ference, or video conference application malfunctions	
Choose one	Never	1,938
	Rarely	11,907
	Sometimes	3,122
	Often	982
	Very Often	611
	Always	420
	No Response	37,077
Voice, telecor	iference, or video conference cannot accommodate all a	ttendees
Choose one	Never	5,166
	Rarely	9,700
	Sometimes	2,333
	Often	779
	Very Often	533
	Always	411
	No Response	37,135
Equipment		
furnished question	ar Component transitioned to maximum telework, did yo l equipment you needed to begin teleworking immediate if you selected "Yes" that you teleworked at any time sinc ted to maximum telework to question 7.)	ely? (Only answer this
Choose one	Yes	37,014
	Some, but not all	6,497
	No	3,242
	No Response	9,304

Question	Answer Options	Number of Responses
when did	ipment did you need in order to telework during the COV you receive it? <i>(Only answer this question if you selected</i> uestion 17.)	
Government-f	urnished laptop	
Choose one	I did not need this equipment.	1,385
	I already had this equipment.	5,851
	I received this equipment during the first 2 weeks of maximum telework.	609
	I received this equipment after the first 2 weeks of maximum telework.	686
	I need this equipment but have not received it yet.	974
	No Response	46,552
Government-f	urnished monitor	
Choose one	I did not need this equipment.	4,432
	I already had this equipment.	1,382
	I received this equipment during the first 2 weeks of maximum telework.	407
	I received this equipment after the first 2 weeks of maximum telework.	693
	I need this equipment but have not received it yet.	2,495
	No Response	46,648
Government-f	urnished cell phone	
Choose one	I did not need this equipment.	5,050
	I already had this equipment.	2,286
	I received this equipment during the first 2 weeks of maximum telework.	83
	I received this equipment after the first 2 weeks of maximum telework.	235
	I need this equipment but have not received it yet.	1,754
	No Response	46,649
Government-f	urnished printer	
Choose one	I did not need this equipment.	6,436
	I already had this equipment.	154
	I received this equipment during the first 2 weeks of maximum telework.	16
	I received this equipment after the first 2 weeks of maximum telework.	36
	I need this equipment but have not received it yet.	2,706
	No Response	46,709

Question	Answer Options	Number of Responses
Government-	furnished headset	
Choose one	I did not need this equipment.	4,990
	I already had this equipment.	1,032
	I received this equipment during the first 2 weeks of maximum telework.	291
	I received this equipment after the first 2 weeks of maximum telework.	831
	I need this equipment but have not received it yet.	2,224
	No Response	46,689
Government-	furnished Wi-Fi hotspot	
Choose one	I did not need this equipment.	6,316
	I already had this equipment.	883
	I received this equipment during the first 2 weeks of maximum telework.	86
	I received this equipment after the first 2 weeks of maximum telework.	145
	I need this equipment but have not received it yet.	1,924
	No Response	46,703
Government-	furnished external PIV/CAC reader	
Choose one	I did not need this equipment.	4,687
	I already had this equipment.	2,997
	I received this equipment during the first 2 weeks of maximum telework.	637
	I received this equipment after the first 2 weeks of maximum telework.	307
	I need this equipment but have not received it yet.	827
	No Response	46,602
Government-	furnished device for classified domain offsite access	
Choose one	I did not need this equipment.	7,774
	I already had this equipment.	166
	I received this equipment during the first 2 weeks of maximum telework.	41
	I received this equipment after the first 2 weeks of maximum telework.	125
	I need this equipment but have not received it yet.	1,300
	No Response	46,651

Question	Answer Options	Number of Responses
telework	hy other equipment, not mention in question 18, that you during the COVID-19 pandemic? If so, please list the equip received it.	
	Comments (open text)	3,934
what elec teleworki	time your Component transitioned to maximum telework tronic devices have you used to perform your work (offici ng? (Only answer this question if you selected "Yes" that y your Component transitioned to maximum telework to qu	al DoD business) while ou teleworked at any
Choose all	Government-furnished laptop or computer	43,428
that apply	Government-furnished monitor	9,215
	Government-furnished cell phone	14,008
	Government-furnished printer	642
	Government-furnished headset	8,217
	Government-furnished Wi-Fi hotspot	3,973
	Government-furnished external PIV/CAC reader	7,601
	Government-furnished device for classified domain offsite access	455
	Personal laptop or computer	9,172
	Personal monitor	15,000
	Personal cell phone	24,043
	Personal printer	9,666
	Personal headset	8,964
	Not Applicable	6,347
	No Response	10
(Only answ	ou using your personal equipment to perform your work (wer this question if you selected that you used personal eq since your Component transitioned to maximum telework 20.)	uipment to perform
Choose all	I was not issued Government-furnished equipment.	17,461
that apply	It is more convenient to use my personal equipment.	10,000
	My Component permits use of personal equipment for my DoD work.	6,014
	I experience better network connections on my personal equipment.	5,482
	I am able to use features unavailable on Government- furnished devices.	5,854
	Not Applicable	27,043
	No Response	1,437

Question	Answer Options	Number of Responses
22. Please describe your experience using the following equipment when your Component transitioned to maximum telework. (Only answer this question if you selected "Yes" that you teleworked at any time since your Component transitioned to maximum telework to question 7.)		
Government-f	urnished laptop	
Choose one	I did not have any problems.	21,897
	I had minor problems.	12,958
	I had some problems.	5,727
	I had many problems.	2,401
	I have never been able to use this equipment successfully.	188
	Not applicable	3,210
Government-f	urnished monitor	
Choose one	I did not have any problems.	9,219
	I had minor problems.	596
	I had some problems.	187
	I had many problems.	52
	I have never been able to use this equipment successfully.	135
	Not applicable	30,490
Government-f	urnished cell phone	
Choose one	I did not have any problems.	10,011
	I had minor problems.	2,641
	I had some problems.	1,065
	I had many problems.	345
	I have never been able to use this equipment successfully.	193
	Not applicable	27,164
Government-f	urnished printer	
Choose one	I did not need have any problems.	704
	I had minor problems.	107
	I had some problems.	53
	I had many problems.	45
	I have never been able to use this equipment successfully.	160
	Not applicable	38,082

Question	Answer Options	Number of Responses
Government-f	urnished headset	
Choose one	I did not have any problems.	7,263
	I had minor problems.	851
	I had some problems.	315
	I had many problems.	132
	I have never been able to use this equipment successfully.	209
	Not applicable	31,396
Government-f	urnished Wi-Fi hotspot	
Choose one	I did not have any problems.	2,236
	I had minor problems.	664
	I had some problems.	296
	I had many problems.	127
	I have never been able to use this equipment successfully.	170
	Not applicable	35,924
Government-f	urnished external PIV/CAC reader	
Choose one	I did not have any problems.	7,495
	I had minor problems.	1,385
	I had some problems.	446
	I had many problems.	192
	I have never been able to use this equipment successfully.	124
	Not applicable	30,357
Government-f	urnished device for classified domain offsite access	
Choose one	I did not have any problems.	666
	I had minor problems.	213
	I had some problems.	83
	I had many problems.	53
	I have never been able to use this equipment successfully.	102
	Not applicable	38,134

Question	Answer Options	Number of Responses
Personal Lapt	op	
Choose one	I did not have any problems.	7,289
	I had minor problems.	2,035
	I had some problems.	781
	I had many problems.	349
	I have never been able to use this equipment successfully.	96
	Not applicable	28,963
Personal mon	itor	
Choose one	I did not have any problems.	15,257
	I had minor problems.	702
	I had some problems.	185
	I had many problems.	69
	I have never been able to use this equipment successfully.	73
	Not applicable	23,858
Personal cell	phone	
Choose one	I did not have any problems.	22,548
	I had minor problems.	1,936
	I had some problems.	576
	I had many problems.	145
	I have never been able to use this equipment successfully.	72
	Not applicable	16,062
Personal prin	ter	
Choose one	I did not have any problems.	9,008
	I had minor problems.	970
	I had some problems.	434
	I had many problems.	168
	I have never been able to use this equipment successfully.	305
	Not applicable	28,686
Personal head	lset	
Choose one	I did not have any problems.	9,137
	I had minor problems.	655
	I had some problems.	185
	I had many problems.	52
	I have never been able to use this equipment successfully.	82
	Not applicable	29,376

Question	Answer Options	Number of Responses
Application		'
application Network <i>question</i>	ur Component transitioned to maximum telework, did you ons you needed to begin teleworking immediately (for exa (VPN), teleconferencing, and file sharing applications)? (C if you selected "Yes" that you teleworked at any time since ned to maximum telework to question 7.)	imple, Virtual Private Dnly answer this
Choose one	Yes	37,151
	Some, but not all the applications I needed.	6,810
	No	2,192
	No Response	9,904
pandemi	tware applications did you need in order to telework durin c and when did you receive it? <i>(Only answer this question ut not all" that you did not have all applications needed to</i> 23.)	if you selected "No" or
Virtual Privat	e Network (VPN)	
Choose one	I did not need this application.	1,304
	I already had this application.	4,017
	I received this application during the first 2 weeks of maximum telework.	1,239
	I received this application after the first 2 weeks of maximum telework.	1,386
	I need this application but have not received it yet.	740
	No Response	47,371
Virtual Deskto	op Infrastructure (VDI)	
Choose one	I did not need this application.	5,186
	I already had this application.	1,224
	I received this application during the first 2 weeks of maximum telework.	589
	I received this application after the first 2 weeks of maximum telework.	624
	I need this application but have not received it yet.	706
	No Response	47,728

Question	Answer Options	Number of Responses
File sharing a	pplications	
Choose one	I did not need this application.	926
	I already had this application.	1,862
	I received this application during the first 2 weeks of maximum telework.	1,614
	I received this application after the first 2 weeks of maximum telework.	3,772
	I need this application but have not received it yet.	536
	No Response	47,347
Voice and tele	econferencing	
Choose one	I did not need this application.	2,545
	I already had this application.	1,098
	I received this application during the first 2 weeks of maximum telework.	1,272
	I received this application after the first 2 weeks of maximum telework.	2,775
	I need this application but have not received it yet.	892
	No Response	47,475
Video confere	encing	'
Choose one	I did not need this application.	2,991
	I already had this application.	765
	I received this application during the first 2 weeks of maximum telework.	1,118
	I received this application after the first 2 weeks of maximum telework.	2,635
	I need this application but have not received it yet.	1,013
	No Response	47,535
Chat services		
Choose one	I did not need this application.	3,082
	I already had this application.	1,664
	I received this application during the first 2 weeks of maximum telework.	1,066
	I received this application after the first 2 weeks of maximum telework.	2,006
	I need this application but have not received it yet.	691
	No Response	47,548

Question	Answer Options	Number of Responses
E-mail		
Choose one	I did not need this application.	305
	I already had this application.	6,967
	I received this application during the first 2 weeks of maximum telework.	864
	I received this application after the first 2 weeks of maximum telework.	501
	I need this application but have not received it yet.	169
	No Response	47,251
telework	e any other applications not mention in question 24, that y during the COVID-19 pandemic? If so, please list the applin you received it.	
	Comments (open text)	2,618
to maxim	te your skill at using the following applications when your Co um telework: (Only answer this question if you selected "Ye ne since your Component transitioned to maximum telework	s" that you teleworked
Virtual Privat	e Network (VPN)	
Choose one	Not applicable	4,999
	Very Poor	838
	Poor	1,287
	Average	6,236
	Good	10,719
	Very Good	21,642
	No Response	10,336
Virtual Deskto	op Infrastructure (VDI)	
Choose one	Not applicable	25,251
	Very Poor	936
	Poor	1,191
	Average	3,934
	Good	5,187
	Very Good	8,240
	No Response	11,318

Question	Answer Options	Number of Responses
File sharing a	pplications	
Choose one	Not applicable	6,866
	Very Poor	1,754
	Poor	2,866
	Average	9,786
	Good	11,119
	Very Good	13,145
	No Response	10,521
Voice and tele	econferencing	
Choose one	Not applicable	14,065
	Very Poor	1,657
	Poor	2,535
	Average	8,074
	Good	8,883
	Very Good	10,158
	No Response	10,685
Video confere	encing	
Choose one	Not applicable	19,312
	Very Poor	1,743
	Poor	2,591
	Average	7,131
	Good	6,834
	Very Good	7,535
	No Response	10,911
Chat services		
Choose one	Not applicable	17,902
	Very Poor	1,462
	Poor	1,986
	Average	6,054
	Good	7,281
	Very Good	10,408
	No Response	10,964

DoD OIG COVID-19 Telework Survey and Responses (cont'd)

Question	Answer Options	Number of Responses
E-mail		
Choose one	Not applicable	623
	Very Poor	417
	Poor	745
	Average	4,422
	Good	10,884
	Very Good	28,763
	No Response	10,203
sharing a	used any alternative solutions, such as video conferencing pplications other than those made available by your Comp k while teleworking during the COVID-19 pandemic?	
Choose one	Yes	6,906
	No	39,184
	No Response	9,967
question	plain what alternate solution(s) you have used and why. <i>(Or</i> if you selected "Yes" that you have used alternate solutions o by your Component to perform your work while teleworking	other than those made
	Comments (open text)	6,540
Access to Cla	ssified Information	
you requ aspect of	time your Component transitioned to maximum telework ired access to classified information to perform a significan your work? (Only answer this question if you selected "Yes ne since your Component transitioned to maximum telewor	nt portion or key s" that you teleworked
Choose one	Yes	6,694
	No	39,360
	No Response	10,003
mobile de to classifi	ave off-site access to classified information (for example, f evice)? (Only answer this question if you selected "Yes" tha ied information to perform a significant portion or key aspe ing to question 29.)	t you required access
Choose one	Yes	848
Choose one		
choose one	No	5,845

Question	Answer Options	Number of Responses
Support		
guidance o if you sele	time your component transitioned to maximum telework to pr policies regarding teleworking have you reviewed? (On cted "Yes" that you teleworked at any time since your Com telework to question 7.)	ly answer this question
Choose all	How to connect to your component network	26,405
that apply	How to use applications (such as Virtual Private Network (VPN), Virtual Desktop Infrastructure (VDI), teleconferencing, Microsoft SharePoint, or Commercial Virtual Remote (CVR).)	28,602
	How to use Government-furnished equipment	19,001
	Acceptable use for Government-furnished equipment	27,037
	Using your personal equipment for government work (such as "do's and don'ts" of using your personal computer, phone, printer, or scanner.)	25,350
	Protecting unclassified, FOUO, or CUI information while teleworking.	31,500
	I have not reviewed any guidance or policies regarding teleworking.	5,331
	Miscellaneous Guidance/Policies	1,747
	I met the telework training/agreement requirements.	1,070
	Not Applicable	6,347
	No Response	4,452
	you not reviewed any telework guidance or policies? (Only a ed that you received any guidance or policies regarding telew	
Choose all	I was not provided any telework guidance or policies.	472
that apply	I did not feel the need to review the telework guidance or policies provided to me.	618
	I reviewed the telework guidance and policies before the beginning of maximum telework and was already familiar with the information.	4,404
	Not Applicable	45,833
	No Response	4,927

Question	Answer Options	Number of Responses
problems	scribe the ability of your component's IT support or desk during the COVID-19 pandemic: <i>(Only answer this questi</i> eleworked at any time since your Component transitioned n 7.)	on if you selected "Yes"
During the firs	t 2 weeks of maximum telework	
Choose one	Very able (your problem was resolved)	16,381
	Somewhat able (your problem was resolved, but resolution was slightly delayed)	9,530
	Neither able, nor unable	2,058
	Somewhat unable (your problem was resolved, but it required escalation or was delayed)	4,671
	Unable (your problem was not resolved)	2,197
	Not applicable	10,538
	No response	10,682
Currently		
Choose one	Very able (your problem was resolved)	22,925
	Somewhat able (your problem was resolved, but resolution was slightly delayed)	7,049
	Neither able, nor unable	1,811
	Somewhat unable (your problem was resolved, but it required escalation or was delayed)	2,117
	Unable (your problem was not resolved)	1,128
	Not applicable	9,927
	No response	11,100
Impact of Tele	ework	
the COVID	ve work that you are unable to complete because you are -19 pandemic? (Only answer this question if you selected ' orked at any time since your Component transitioned to ma	"Yes" to Question 7 that
Choose one	yes	8,623
	No	36,902
	No response	10,532

Question	Answer Options	Number of Responses
this questi	ou unable to complete some work because you are telewo ion if you selected "Yes" to Question 34 that you had work te because you were teleworking.)	
Choose all	I require access to classified information or systems.	3,420
that apply	I require access to documents or resources located at my workspace.	4,663
	I need to meet in person with my team to complete my work.	2,244
	I need to meet in person with clients, venders, and others to complete my work.	2,839
	Travel restrictions have prevented me from completing some work.	2,190
	Not Applicable	47,434
	No Response	64
are telewo	d you rate the importance of the work you are unable to orking? (Only answer this question if you selected "Yes" to that you were unable to complete because you were telew	Question 34 that you
Choose one	Not important	189
	Slightly important	1,299
	Moderately important	2,207
	Important	2,707
	Very important	2,169
	No response	47,486
while you select	to my productivity level before maximum telework, my per teleworking during the COVID-19 pandemic. (Only answered ed "Yes" to Question 7 that you teleworked at any time sin ed to maximum telework.)	er this question if
Choose one	Increased	21,398
	Remained the same	
		18,718
	Decreased	18,718 5,405
	Decreased No response	· · ·

Question	Answer Options	Number of Responses
have you in the mo	time your component transitioned to maximum telework adjusted your work schedule while teleworking (for exam rning or late at night)? <i>(Only answer this question if you se</i> orked at any time since your Component transitioned to m 7.)	ple, working early elected "Yes" that
Choose one	Yes	12,523
	No	22,806
	Sometimes	10,254
	No response	10,474
pandemic	you needed to adjust your work schedule while teleworkin ? (Only answer this question if the following conditions are r imes' that you adjusted your work schedule while teleworkir	net: Answer was 'Yes'
Choose all that apply	Connectivity to component network is better in the early morning or late at night.	9,263
	I need to care for other members of my household during the day.	5,241
	I need to share the internet bandwidth at home with other members of my household (such as your spouse, roommates, or children who are also working or learning online).	3,077
	I prefer not to answer.	9,310
	Not Applicable	33,280
	No Response	1,067
Future of Tele	work	1
	ects of teleworking, if any, would you like to see continue orders are lifted?	after the maximum
Choose all	Regular telework as part of my work schedule	37,146
that apply	More flexible work hours	22,461
	Better work and home-life balance	25,508
	Shorter commute or commuting less offer	27,711
	Increased trust from management	21,005
	None	5,746
	No Response	5,644

Question	Answer Options	Number of Responses
41. What imp	provements, if any, are needed for you to successfully telev	work?
Choose all	Improved connectivity to component network	15,920
that apply	Additional government-furnished equipment (such as laptops, monitors, or mobile devices)	18,231
	Ability to use personal equipment for DoD work	6,416
	Additional collaborations tools (such as CVR, SharePoint, or Microsoft Teams)	9,816
	Increased voice and telecommunications conferencing capacity	13,344
	Increased access to classified information while teleworking	4,716
	Better IT support or help desk support	9,724
	Management buy-in and support of telework	17,364
	None	12,023
	No Response	5,968
42. What add	litional equipment do you need to successfully telework?	
Choose all	Government-furnished laptop or computer	4,099
that apply	Government-furnished monitor	10,185
	Government-furnished cell phone	6,070
	Government-furnished printer	7,797
	Government-furnished headset	4,615
	Government-furnished Wi-Fi hotspot (wireless internet connectivity device)	5,081
	Government-furnished external PIV/CAC reader (external, plug-in PIV/CAC readers, NOT the PIV/CAC reader built into your laptop)	2,230
	Government-furnished device for classified domain offsite access (such as DoD Mobility Classified Capability-Secret or DoD Mobility Classified Capability-Top Secret that enable Government-owned mobile devices to access the classified Secret or Top Secret DoD Information Network telephone and information services)	2,413
	No Response	38,644
	nything else you'd like to share about your telework exper pandemic?	ience during the
	Comments (open text)	28,657

DoD OIG COVID-19 Telework Survey and Responents by DoD Components (cont'd)

Appendix C

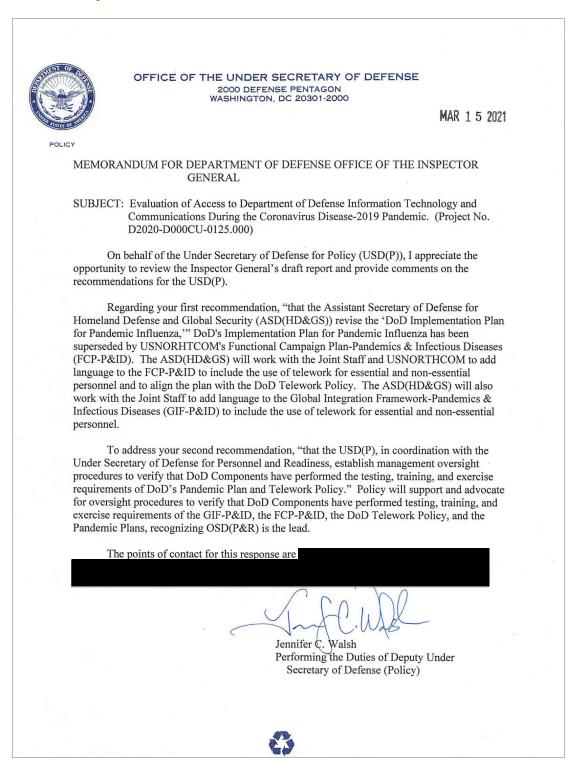
DoD OIG COVID-19 Telework Survey Respondents by DoD Components

Component	Military Responses	Civilian Responses	Total Responses
U.S. Africa Command	3	18	21
Air Force	3,468	3,684	7,152
Army	1,080	3,075	4,155
U.S. Central Command	19	37	56
U.S. Cyber Command	7	35	42
Defense Advanced Research Projects Agency	2	56	58
Defense Commissary Agency	0	1,034	1,034
Defense Contract Audit Agency	0	2,708	2,708
Defense Contract Management Agency	1	4,576	4,577
Defense Counterintelligence and Security Agency	1	19	20
Defense Finance and Accounting Service	0	5,234	5,234
Defense Health Agency	5	1,700	1,705
Defense Human Resources Activity	2	612	614
Defense Information Systems Agency	7	2,981	2,988
Defense Intelligence Agency	1	17	18
Defense Legal Services Agency	0	169	169
Defense Logistics Agency	9	8,983	8,992
Defense Media Activity	1	169	170
Defense POW/MIA Accounting Agency	0	151	151
Defense Security Cooperation Agency	0	203	203
Defense Security Service	0	7	7
Defense Technical Information Center	0	91	91
Defense Technology Security Agency	0	37	37
Defense Threat Reduction Agency	3	589	592
DoD - Unspecified	300	598	898
DoD Education Activity	3	117	120
U.S. European Command	13	27	40
U.S. Indo-Pacific Command	13	41	54
Joint Chiefs of Staff	3	61	64

Component	Military Responses	Civilian Responses	Total Responses
Joint Staff	4	297	301
Marine Corps	1,198	4,166	5,364
Missile Defense Agency	0	1,491	1,491
National Geospatial-Intelligence Agency	1	2	3
National Reconnaissance Office	7	0	7
National Security Agency/Central Security Service	4	0	4
Navy	1,112	3,679	4,791
U.S. Northern Command	5	26	31
Office of Economic Adjustment	0	1	1
Office of Economic Support	0	2	2
Office of Inspector General	1	3	4
Office of the Secretary of Defense	8	1,170	1,178
Pentagon Force Protection Agency	1	138	139
U.S. Southern Command	3	12	15
U.S. Space Command	1	17	18
Space Force	15	108	123
U.S. Special Operations Command	15	66	81
U.S. Strategic Command	2	31	33
Test Resource Management Center	0	8	8
U.S. Transportation Command	4	34	38
Washington Headquarters Service	1	454	455

Management Comments

Assistant Secretary of Defense for Homeland Defense and Global Security and Under Secretary of Defense for Policy



Acronyms and Abbreviations

- ASD(HD&GS) Assistant Secretary of Defense for Homeland Defense and Global Security
 - CIO Chief Information Officer
 - COVID-19 2019 Novel Coronavirus (2019-nCOV)
 - CVR Commercial Virtual Remote
 - DAT Data Analytics Team
 - DCAA Defense Contract Audit Agency
 - DCMA Defense Contract Management Agency
 - DEERS Defense Enrollment Eligibility Reporting System
 - DFAS Defense Finance and Accounting Service
 - DHA Defense Health Agency
 - DISA Defense Information Systems Agency
 - **DLA** Defense Logistics Agency
 - DUSD(P) Deputy Under Secretary of Defense for Policy
 - GFE Government-furnished Equipment
 - OIG Office of Inspector General
 - USD(P) Under Secretary of Defense for Policy
 - VDI Virtual Desktop Infrastructure
 - **VPN** Virtual Private Network

Glossary

Bandwidth. The amount of data that can be transmitted in a fixed amount of time. For digital devices, the bandwidth is usually expressed in bits per second (bps) or bytes per second. For analog devices, the bandwidth is expressed in cycles per second (cps), or Hertz (Hz).

Commercial Virtual Remote. A DoD-contracted Microsoft Office 365 Teams temporary capability, implemented during national emergencies, with DoD specific security controls, which provides video, voice, and text communication, as well as document sharing tools for Basic Controlled Unclassified Information. Commercial Virtual Remote is accessible from the Internet or DoD networks via both Government-furnished equipment and personal devices.

Virtual Desktop Infrastructure. A workstation that is hosted in the datacenter and is accessible from any computer with a Common Access Card (CAC) and DoD certifications.

Virtual Private Network. A data network that enables two or more parties to communicate securely across a public network by creating a private connection, or "tunnel," between them.



Whistleblower Protection U.S. Department of Defense

Whistleblower Protection safeguards DoD employees against retaliation for protected disclosures that expose possible waste, fraud, and abuse in government programs. For more information, please visit the Whistleblower webpage at http://www.dodig.mil/Components/ Administrative-Investigations/Whistleblower-Reprisal-Investigations/ Whisteblower-Reprisal/ or contact the Whistleblower Protection Coordinator at Whistleblowerprotectioncoordinator@dodig.mil

For more information about DoD OIG reports or activities, please contact us:

Congressional Liaison 703.604.8324

Media Contact public.affairs@dodig.mil; 703.604.8324

> **DoD OIG Mailing Lists** www.dodig.mil/Mailing-Lists/

Twitter www.twitter.com/DoD_IG

DoD Hotline www.dodig.mil/hotline



DEPARTMENT OF DEFENSE | OFFICE OF INSPECTOR GENERAL

4800 Mark Center Drive Alexandria, Virginia 22350-1500 www.dodig.mil DoD Hotline 1.800.424.9098

