Sec. 3. Modernizing Federal Government Cybersecurity.

(a) To keep pace with today's dynamic and increasingly sophisticated cyber threat environment, the Federal Government must take decisive steps to modernize its approach to cybersecurity, including by increasing the Federal Government's visibility into threats, while protecting privacy and civil liberties. The Federal Government must adopt security best practices; advance toward Zero Trust Architecture; accelerate movement to secure cloud services, including Software as a Service (SaaS), Infrastructure as a Service (IaaS), and Platform as a Service (PaaS); centralize and streamline access to cybersecurity data to drive analytics for identifying and managing cybersecurity risks; and invest in both technology and personnel to match these modernization goals.

(b) Within 60 days of the date of this order, the head of each agency shall:

(i) update existing agency plans to prioritize resources for the adoption and use of cloud technology as outlined in relevant OMB guidance;

(ii) develop a plan to implement Zero Trust Architecture, which shall incorporate, as appropriate, the migration steps that the National Institute of Standards and Technology (NIST) within the Department of Commerce has outlined in standards and guidance, describe any such steps that have already been completed, identify activities that will have the most immediate security impact, and include a schedule to implement them; and

(iii) provide a report to the Director of OMB and the Assistant to the President and National Security Advisor (APNSA) discussing the plans required pursuant to subsection (b)(i) and (ii) of this section.

(c) As agencies continue to use cloud technology, they shall do so in a coordinated, deliberate way that allows the Federal Government to prevent, detect, assess, and remediate cyber incidents. To facilitate this approach, the migration to cloud technology shall adopt Zero Trust Architecture, as practicable. The CISA shall modernize its current cybersecurity programs, services, and capabilities to be fully functional with cloud-computing environments with Zero Trust Architecture. The Secretary of Homeland Security acting through the Director of CISA, in consultation with the Administrator of General Services acting through the Federal Risk and Authorization Management Program (FedRAMP) within the General Services Administration, shall develop security principles governing Cloud Service Providers (CSPs) for incorporation into agency modernization efforts. To facilitate this work:

(i) Within 90 days of the date of this order, the Director of OMB, in consultation with the Secretary of Homeland Security acting through the Director of CISA, and the Administrator of General Services acting through FedRAMP, shall develop a Federal cloud-security strategy and provide guidance to agencies accordingly. Such guidance shall seek to ensure that risks to the FCEB from using cloud-based services are broadly understood and effectively addressed, and that FCEB Agencies move closer to Zero Trust Architecture.

(ii) Within 90 days of the date of this order, the Secretary of Homeland Security acting through the Director of CISA, in consultation with the Director of OMB and the Administrator of General Services acting through FedRAMP, shall develop and issue, for the FCEB, cloud security technical reference architecture documentation that illustrates recommended approaches to cloud migration and data protection for agency data collection and reporting.

(iii) Within 60 days of the date of this order, the Secretary of Homeland Security acting through the Director of CISA shall develop and issue, for FCEB Agencies, a cloud-service governance framework. That framework shall identify a range of services and protections available to agencies based on incident severity. That framework shall also identify data and processing activities associated with those services and protections.

(iv) Within 90 days of the date of this order, the heads of FCEB Agencies, in consultation with the Secretary of Homeland Security acting through the Director of CISA, shall evaluate the types and sensitivity of their respective agency's unclassified data, and shall provide to the Secretary of Homeland Security through the Director of CISA and to the Director of OMB a report based on such evaluation. The evaluation shall prioritize identification of the unclassified data considered by the agency to be the most sensitive and under the greatest threat, and appropriate processing and storage solutions for those data.

(d) Within 180 days of the date of this order, agencies shall adopt multi-factor authentication and encryption for data at rest and in transit, to the maximum extent consistent with Federal records laws and other applicable laws. To that end:

(i) Heads of FCEB Agencies shall provide reports to the Secretary of Homeland Security through the Director of CISA, the Director of OMB, and the APNSA on their respective agency's progress in adopting multifactor authentication and encryption of data at rest and in transit. Such agencies shall provide such reports every 60 days after the date of this order until the agency has fully adopted, agency-wide, multi-factor authentication and data encryption.

(ii) Based on identified gaps in agency implementation, CISA shall take all appropriate steps to maximize adoption by FCEB Agencies of technologies and processes to implement multifactor authentication and encryption for data at rest and in transit.

(iii) Heads of FCEB Agencies that are unable to fully adopt multi-factor authentication and data encryption within 180 days of the date of this order shall, at the end of the 180-day period, provide a written rationale to the Secretary of Homeland Security through the Director of CISA, the Director of OMB, and the APNSA.

(e) Within 90 days of the date of this order, the Secretary of Homeland Security acting through the Director of CISA, in consultation with the Attorney General, the Director of the FBI, and the Administrator of General Services acting through the Director of FedRAMP, shall establish a framework to collaborate on cybersecurity and incident response activities related to FCEB cloud technology, in order to ensure effective information sharing among agencies and between agencies and CSPs.

(f) Within 60 days of the date of this order, the Administrator of General Services, in consultation with the Director of OMB and the heads of other agencies as the Administrator of General Services deems appropriate, shall begin modernizing FedRAMP by:

(i) establishing a training program to ensure agencies are effectively trained and equipped to manage FedRAMP requests, and providing access to training materials, including videos-on-demand;

(ii) improving communication with CSPs through automation and standardization of messages at each stage of authorization. These communications may include status updates, requirements to complete a vendor's current stage, next steps, and points of contact for questions;

(iii) incorporating automation throughout the lifecycle of FedRAMP, including assessment, authorization, continuous monitoring, and compliance;

(iv) digitizing and streamlining documentation that vendors are required to complete, including through online accessibility and pre-populated forms; and

(v) identifying relevant compliance frameworks, mapping those frameworks onto requirements in the FedRAMP authorization process, and allowing those frameworks to be used as a substitute for the relevant portion of the authorization process, as appropriate.