

STATEMENT OF

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on

**“FOSTERING FINANCIAL INNOVATION:
HOW AGENCIES CAN LEVERAGE TECHNOLOGY TO
SHAPE THE FUTURE OF FINANCIAL SERVICES”**

before the

**SUBCOMMITTEE ON
DIGITAL ASSETS, FINANCIAL TECHNOLOGY AND INCLUSION**

of the

**COMMITTEE ON FINANCIAL SERVICES
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Chairman Hill, Ranking Member Lynch, and Members of the Subcommittee, I am pleased to appear before you at today's hearing on *Fostering Financial Innovation: How Agencies Can Leverage Technology to Shape the Future of Financial Services*. My name is Mark Mulholland, and I am the Deputy Chief Information Officer for Management at the Federal Deposit Insurance Corporation (FDIC).

I began my professional career in 1989 as an internal auditor in the General Services Administration's Office of Inspector General (OIG). In 1991, I was hired by the Resolution Trust Corporation's (RTC) OIG to perform information technology (IT) audits. Following the merger of the RTC and FDIC in 1996, I transitioned to the FDIC's OIG and continued to perform IT, security, and other types of audits. In the years that followed, I assumed positions of progressively higher levels of responsibility, including Assistant Inspector General for IT Audits and Cyber. In August 2021, I transferred to the FDIC's Chief Information Officer Organization (CIOO). In my current role, I oversee the CIOO's budget and financial operations, procurement and contract management activities, internal review and risk management programs, and human resources management.

Introduction

The FDIC relies heavily on technology to carry out its core mission of maintaining stability and public confidence in our nation's financial system. In 2023, the FDIC budgeted almost \$500 million to support the development, enhancement, and maintenance of its IT infrastructure, information systems, and data. This represents a 20 percent increase over the FDIC's 2022 IT budget of approximately \$416 million. The FDIC's investment in technology is critical to addressing its statutory responsibilities of insuring deposits; supervising financial institutions for safety, soundness, and consumer protection; making large and complex financial

institutions resolvable; managing receiverships; and providing critical workplace support services.

The FDIC also relies heavily on data to drive its business activities and inform decision-making. For example, the FDIC uses data to identify, analyze, and respond to current and emerging risks to insured financial institutions; price deposit insurance premiums; and perform pre- and post-resolution activities at financial institutions. The FDIC has several strategic initiatives underway to build out a modern, cloud-based data management and analytics environment to support its business needs.

The FDIC recognizes that the success of its technology investments depends on having a diverse IT workforce with the skills and competencies needed to deliver products and services that support the FDIC's business needs today and in the future. The FDIC places a high priority on recruiting and retaining talented IT professionals with skills in areas critical to achieving the FDIC's target-state IT environment, such as cloud architecture, agile development and delivery, product management, and strategic data management.

My written testimony begins with an overview of the FDIC's IT program and operations. As part of this discussion, I describe the history and role of FDITECH, which is a key component organization within the CIOO responsible for facilitating technology innovation to improve the efficiency and effectiveness of FDIC programs and operations. My testimony then discusses the FDIC's ongoing efforts to modernize its IT infrastructure, systems and data and ensure a viable IT workforce to support the mission-critical work of the agency. Finally, my testimony discusses how the FDIC engages with stakeholders in the banking sector to understand the potential benefits, risks, and impact of current and emerging financial technology products and services and how the FDIC uses this information to inform its supervisory activities.

The FDIC's IT Program and Operations

The FDIC's CIOO has overall responsibility for managing the agency's IT program and operations. This includes developing IT strategic plans, a target state architecture, and roadmaps and governance to guide the FDIC's IT modernization activities and advance the agency's technology vision. The CIOO also manages the day-to-day operations and maintenance of the FDIC's IT infrastructure and more than 200 information systems and applications that support core business functions and related support activities. FDIC staff, Federal and state bank regulatory personnel, insured financial institution employees, members of the public, and others use FDIC information systems to access and research bank data, account for failed bank receivership activities, pay deposit insurance premiums and file applications, and conduct other important business. To safeguard the confidentiality, integrity and availability of the FDIC's information systems and data, the CIOO maintains an agency-wide information security and privacy program.

The FDIC's Chief Information Officer (CIO) leads the CIOO, and reports to the Chairman of the FDIC's Board of Directors. As of September 30, 2023, the CIOO had 376 employees and approximately 1,400 contractor support personnel cleared to provide IT services. The majority of these employees and contractor personnel are located in the Washington, D.C. metropolitan area, with the remainder geographically dispersed throughout the United States.

In response to Federal legislation and government-wide guidance directing agencies to modernize their data management practices, the FDIC established a Chief Data Officer (CDO) position within the CIOO in 2019. The CDO, who reports to the CIO, has agency-wide responsibility for developing and maintaining data governance and strategy, as well as data

initiatives to support business operations. This includes developing an enterprise-wide data inventory and ensuring relevant FDIC data are shared with the public in a timely manner.

The CIOO makes strategic use of contractors when it makes business sense. For example, the CIOO acquires specialized technology expertise from the private sector when it is not available in the FDIC's IT workforce, and leverages contractors to rapidly scale resources in response to planned and unexpected needs, such as bank resolution activities.

The CIOO regularly reviews its acquisition strategies and the performance of its contractors to ensure they support the FDIC's needs in an efficient and effective manner. For example, in 2023, the CIOO replaced its legacy application development contracts with new Basic Ordering Agreements collectively known as IT Application Services Next Generation (ITAS NG). Following a competitive process, the FDIC made awards to 17 contractors under ITAS NG, of which 9 (or 53 percent) are minority or woman-owned businesses. ITAS NG uses fixed-price contractor teams that work from a backlog that is prioritized by FDIC business stakeholders to ensure business value is delivered early and often. ITAS NG provides significant flexibility as it permits the FDIC to direct changes in contractor team size, skill composition, and work priorities. ITAS NG also contains a clause that permits the FDIC to end contracts for unsatisfactory contractor performance and replace them with the next highest rated vendor from the initial competition. This enables the FDIC to transition to a new contractor more quickly than it could if it had to begin a new procurement.

In addition, the CIOO is collaborating with the FDIC's Division of Administration's (DOA) Acquisition Services Branch and the FDIC's Office of Minority and Women Inclusion to ensure Minority and Women Owned Businesses (MWOBs) are included in solicitations for new

IT procurements. Of the CIOO's 621 contracts and BOAs that were active as of October 2023, 230 (or 37 percent) were held by MWOBs.

FDITECH

The FDIC established FDITECH in March 2019, and hired its first Chief Innovation Officer (CINO) to lead the organization in February 2021. Initially, FDITECH had both an internal and external focus. Internally, FDITECH focused on encouraging employees to drive innovation across the FDIC by identifying problems and proposing innovative solutions. Employees and groups of employees could refine their proposed solutions, develop a business case, and make a presentation to senior FDIC leadership for possible adoption. Externally, FDITECH engaged with stakeholders in the financial services industry to better understand and foster the safe adoption of technology in the banking sector, particularly at community banks. This included sponsoring "tech sprints" where financial institutions, private sector companies, and other stakeholders collaborated for short periods on challenges or opportunities facing the FDIC and the financial sector.

In February 2022, the FDIC's CINO departed the FDIC, and the FDIC announced the realignment of FDITECH into the CIOO. As part of the realignment, the mission of FDITECH was modified to focus on the adoption of innovative technologies within the FDIC itself. As described later, other FDIC Divisions and Offices, including the Division of Risk Management Supervision (RMS) and Division of Depositor and Consumer Protection (DCP), continue to regularly engage industry stakeholders on financial innovation.¹ Under its modified mission, FDITECH works to identify problems and challenges in FDIC programs and operations, and

¹ RMS and DCP have primary policy-making and oversight responsibility related to FDIC-supervised financial institutions' financial technology activities. These divisions have subject matter expertise in such areas as digital assets, artificial intelligence, machine learning, and third-party financial technology relationships.

conducts proofs of concept aimed at removing barriers and building IT capabilities. Integrating FDITECH into the CIOO built upon the partnership and cooperation that already existed between the two organizations. Prior to the realignment, the CIOO had detailed some of its employees to FDITECH to help establish its processes and supported efforts led by FDITECH on technology innovation.

In August 2022, the FDIC selected a new permanent CINO. Under the new CINO, FDITECH is exploring how technologies can bring efficiencies to FDIC programs and operations. For example, earlier this year, FDITECH partnered with DCP to pilot the use of machine learning to replace current manual methods of collecting data on documents used during compliance examinations. The FDIC expects that such solutions can save compliance examiners significant time on examinations. FDITECH is also partnering with RMS to expand the use of machine learning to analyze Reports of Examination of individual institutions to identify risks across the banking sector. In addition, FDITECH is evaluating various scenarios involving the use of distributed ledger technology.

IT Modernization

The FDIC is currently implementing a multi-year IT Modernization Program. This program will bring the FDIC's IT environment into alignment with modern practices and standards in the IT industry, as well as with key Federal priorities, including the Federal Cloud Smart Strategy, the Federal Data Strategy, and Executive Order 14028, *Improving the Nation's Cybersecurity*. Under the IT Modernization Program, the CIOO is working to modernize and migrate most of its information systems and data from legacy on-premise data centers to cloud technology platforms that offer enhanced IT capabilities, security, and resiliency.

The IT Modernization Program includes an objective to modernize the FDIC's risk management supervision and compliance examination business processes. To achieve this objective, the CIOO established a common cloud IT platform to host these business processes. In June 2023, the CIOO began operating the first major supervisory application—the Framework for Oversight of Compliance and Community Reinvestment Act Activities User Suite (FOCUS)—on this platform. FOCUS enhanced and replaced longstanding legacy information systems used by DCP to support consumer compliance and Community Reinvestment Act examinations and provides compliance examiners with an end-to-end solution that offers a significantly improved user experience and process efficiencies.

The CIOO and RMS have also initiated work on a new multi-year effort to move the FDIC's risk management supervision-related systems from a legacy applications-based environment to a modern, cloud-based agile suite of applications based on human-centered design principles and improved business-processes. This effort will reduce the amount of manual data entry surrounding supervisory activities and allow the FDIC to expand its use of machine learning technology to identify emerging trends from examination activities, among other improvements. The CIOO plans to deliver this new technology on the same cloud platform hosting FOCUS.

In addition to modernizing the FDIC's IT infrastructure and information systems, the FDIC is working on other modernization initiatives, including initiatives to build an enterprise data management and analytic capability in the cloud and adopt strategic security improvements, such as Zero Trust.

IT Workforce Planning

According to the Office of Personnel Management's (OPM) *Workforce Planning Guide* published in November 2022, Federal agencies that conduct effective workforce planning are best prepared to face the difficult challenges of attracting, developing, and retaining a workforce that is competent and capable of addressing new objectives, new technologies, and new mission requirements. The FDIC is currently pursuing an IT workforce planning strategy consistent with the concepts and principles in OPM's *Workforce Planning Guide*. Employing recruitment strategies that attract and retain talented employees with the right skills and competencies is critical to the achieving the FDIC's IT strategies and modernization goals.

Effective workforce planning must include methods to promote diversity, equity, and inclusion. A diverse workforce increases the pool of eligible workers and fosters creative problem solving and innovative ideas to solve complex challenges. As of September 30, 2023, approximately 50 percent of the CIOO's workforce was comprised of minorities, and 34 percent were women. The CIOO is partnering with DOA's Human Resources Branch to evaluate new strategies and government-wide programs aimed at reaching the broadest possible pool of candidates for CIOO vacancies.

To guide its workforce planning activities, the CIOO developed a comprehensive recruiting, hiring, onboarding, training, and retention plan in August 2023. This plan defines both short and long-term initiatives to create and maintain a high performing CIOO workforce. For example, in October 2023, the CIOO engaged a contractor with expertise in human capital management to evaluate the current and future skills and competency needs of the CIOO's workforce, identify gaps, and develop action plans to close any gaps. These action plans, which are targeted for development in 2024, are intended to enhance the CIOO's recruitment, hiring,

and retention strategies and identify opportunities to promote employee development through training and educational programs.

Financial Technology Innovation

Financial technology innovation has always been essential to the banking system, and new financial products and services can be transformative. ATMs, on-line banking, and mobile banking are all mainstream services today, but were once innovations. Financial technology innovation offers a number of potential benefits, such as enhanced operations, reduced transaction costs, improved delivery of services to consumers and businesses, and greater financial inclusion through expanded access to credit and other banking services. At the same time, technology innovation presents risks that financial institutions must effectively manage, such as Bank Secrecy Act and anti-money laundering concerns, consumer protection issues, and privacy and data security risks.

To ensure the FDIC understands the potential benefits and risks of financial technology innovation and is prepared to address the associated issues that can arise, the FDIC routinely engages with industry stakeholders through a number of channels. For example, the FDIC issues periodic Requests for Information regarding insured financial institutions' current and potential activities involving modern technologies, such as digital assets and artificial intelligence; coordinates with other Federal and state regulatory agencies on financial technology issues; and reviews the use of technology at individual financial institutions and select service providers through the examination process. The FDIC also sponsors financial technology-related conferences and training, and discusses financial technology issues with bankers through such forums as the FDIC Advisory Committee on Community Banking.²

² The FDIC Board of Directors established the FDIC Advisory Committee on Community Banking in 2009 to provide the FDIC with advice and guidance on a broad range of important policy issues, including technology

The FDIC has also established internal channels to monitor, assess, and share information about emerging financial technologies. For example, the FDIC established the Emerging Technology Steering Committee to, among other things, monitor and assess technology activities, risks, and trends and evaluate their potential impact on the banking system, deposit insurance, regulatory oversight, economic inclusion, and consumer protection. The Committee is comprised of the Directors of RMS, DCP, other FDIC Divisions, as well as the General Counsel, the Chief Risk Officer, and the CIO. In addition, earlier this year, RMS established a new Emerging Technology Section and DCP established a new Technology Enterprise and Consumer Harm Risk and Innovation Section. These new sections are bringing increased focus to policy development, training, examination support, and interagency collaboration on emerging technology topics related to insured financial institutions.

Collectively, these activities help to inform the FDIC's supervisory strategy and regulatory policy-making for responding to opportunities and risks presented by the use of emerging technologies at supervised financial institutions.

On October 30, 2023, the President issued an Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence (AI). The FDIC is reviewing the policy, guiding principles, and priorities in this Executive Order and taking a thoughtful and deliberative approach to the use of AI in internal FDIC programs and operations. Currently, the FDIC has not authorized the use of Generative AI tools, such as ChatGPT that uses machine learning and input data to produce content including text, images, audio, and other data. The FDIC's CIO is working with other senior FDIC leaders to establish appropriate governance to guide the use of AI across the agency. Such governance will help ensure transparency, trust, and

issues, impacting small community banks throughout the country, as well as the local communities they serve, with a focus on rural areas.

a safe and ethical approach for the use of AI, as well as mitigate risks associated with AI and promote compliance with legal requirements.

Conclusion

Over the next 3-5 years, the CIOO will continue to focus on modernizing its IT infrastructure, business applications, and practices to ensure the FDIC’s mission organizations have the technology they need to effectively support core mission functions. As part of this work, the CIOO will continue to facilitate a modern, cost-effective, and agile IT environment that fosters innovation, efficiency and effectiveness. Finally, the CIOO will continue to place priority attention on workforce planning to ensure its employees have the skills and competencies necessary to support the FDIC’s current and future needs.

I appreciate the opportunity to appear before you today. I am happy to answer any questions you may have.