National Technical Information Service (NTIS)
Advisory Board Meeting Minutes
May 22, 2023

Location

The Advisory Board meeting was exclusively on-site at NTIS on May 22, 2023. NTIS' address is 5301 Shawnee Road, Alexandria VA.

Attendance

The following Board members participated in the meeting: Dr. Ajit Gaddam, Advisory Board (AB) Chair, Mr. Aaron D. Burciaga, Ms. Diana M. Zavala, Dr. Kitty Chan and Dr. Stoney Trent.

Rebecca Hermanowicz, Senior Attorney, Ethics Office from the Department of Commerce was present to provide the AB annual ethics training.

NTIS senior staff participants included Mr. Wayne Strickland, detailed to the position of Director; Ms. Elizabeth Shaw, Associate Director, Office of Program Development (OPD); Dr. Chakib Chraibi, Acting Associate Director, Office of Data Services (ODS); Ms. Leigh Anne Levesque, Office of the Chief Information Officer (OCIO); Ms. Andrea Patterson, Deputy Financial Officer, Office of the Chief Financial Officer (OCFO); and Mr. Randy Caldwell, Chief of Staff. Other participants from NTIS included Tim Stanback and Daniel Ramsey from the Office of Program Management and Steven Holland from the Office of Program Development.

Welcome/Opening Remarks

Ms. Shaw, in the capacity of the Designated Federal Officer (DFO), opened the meeting with introductions and an overview of the establishment and purpose of the AB, sharing the presence of the Alternate DFO, Steven Holland. Mr. Holland advanced the slide presentation throughout the meeting. She shared up to one-half hour will be reserved for public oral comments with speakers selected on a first-come, first-serve basis. Each speaker would be limited to 5 minutes. Ms. Shaw called the meeting to order, turning it over to Mr. Strickland and Dr. Gaddam.

Mr. Strickland, detailed to the Director position, welcomed everyone to the meeting, sharing that he was excited to have an onsite meeting after several years of virtual meetings. Further, he shared his hopes of sparking more dialogue and exchange of ideas at the meeting. Mr. Strickland noted the diverse skillsets and academic backgrounds of the Board members and was anxious to gain the Board's insight into the NTIS operation moving forward. He turned the meeting over to the chairperson, Dr. Gaddam. Dr. Gaddam introduced the other AB members, Dr. Chan, Ms. Zavala, and Mr. Burciaga then recognized and welcomed the newest Board member, Dr. Stoney Trent. Dr. Gaddam shared how the AB believes in the mission and looks forward to assisting NTIS. Then Mr. Strickland briefly reviewed the agenda items:

NTIS ADVISORY BOARD (Onsite)
National Technical Information Service
May 22, 2023

AGENDA

I.	**NTIS Mission and Operational Update**
8:30 AM	**Call to Order and Introductions of Board Members** • Elizabeth Shaw, Designated Federal Officer • Wayne Strickland, Detailed to the Director's position • Dr. Ajit Gaddam, Advisory Board Chair
9:00 AM	**NTIS Update** • Wayne Strickland, Detailed to the Director's position
9:20 AM	**Legal Update** • Rebecca Hermanowicz, Senior Attorney
9:30 AM	**Operations of the Service and Lines of Business Overview** • Wayne Strickland, Detailed to the Director's position (5 min) • Elizabeth Shaw, Associate Director, Office of Program Development (15 min) • Wayne Strickland, Associate Director, Office of Program Management (20min) • Dr. Chakib Chraibi, Acting Associate Director, Office of Data Services (15 min) • Leigh Anne Levesque, Office of the Chief Information Officer • Andrea Patterson, Deputy Chief Financial Officer
10:45 AM	**10-minute break**
II.	**Discussion with Board Members**
10:55AM 12:15 PM	**Advisory Board Discussion with NTIS** • Progress on data mission • Guidance on the operation of the Service
Lunch from 12:15 to 1:15 PM	
III.	**Summary and Close**
1:15 PM	**Review Feedback and Action Items**
1:45 PM	**Members wrap up discussion and public comment***
Meeting Adjourns at 2:00 PM	

Director's Overview

Mr. Strickland discussed the top challenges and accomplishments at NTIS. He shared that NTIS has been in a period of transition and continues to expand portfolio projects while improving federal service to the public. He felt NTIS adapted quite well during COVID and continues to do so within the hybrid work environment. Mr. Strickland stated that NTIS continues to maintain control over its finances and has it very much entrenched as part of our routine.

According to Mr. Strickland, one of NTIS' challenges is branding from an old mission to a newer data mission. Sharing his experience at a recent event he attended in March, some attendees still believed we were connected to the old mission. With all successes, he felt we need to make sure the NTIS' efforts are shared/publicized.

Mr. Strickland highlighted challenges with the workforce. He shared NTIS is small by design with efforts to maintain a ratio of 40-40-40. This formula translates to 40 federal employees, 40 contractors, and a little over 40 JVPs. While we are not currently at these numbers, we will focus on recruitment, training, and retention to increase the workforce. These efforts are in addition to the sustainability of existing and new projects coming in. It was noted, additional support and resources will be needed as new projects are finalized.

As of March, NTIS had a positive net of $582K. It was shared that in FY 22, there was a loss of $1.3M. Mr. Caldwell provided insight into how investments last FY contributed to the loss and paved the way toward an optimistic net projection. Another contributing factor to the positive net was the new agreements with the Office of Personnel Management that began in May 2023, totaling $14.7M. The current projected end-of-year revenue is a positive net of $1.2M.

Mr. Strickland shared these were his thoughts on the AB focus areas that he wanted to understand how NTIS could be poised for future work:

- NTIS Business Model
- Artificial Intelligence
- Emerging Technologies
- Fraud/Waste/Abuse
- Cybersecurity
- Diversity Equity Inclusion Accessibility
- 21st Century Public Service Needs
- 21st Century Workforce
- 21st Joint Venture Partnerships

He honed-in on the last bullet, letting the AB know that NTIS is working hard at adding new JVPs through the Aug 2021 Federal Register Notice (FRN) seeking new partners. Also, NTIS is in the process of posting the FRN for JVP Data Transformation and Access (DTA), which is currently awaiting legal review. The goal is to have a cluster of partners within the DTA product line.

Mr. Strickland asked the AB for their perception of how we are meeting the public

service needs. He felt NTIS had a perspective that was based on our history that was impacted by the laws and rules out forth, which would be different perspective than the AB. He shared diversity and inclusion is inherent to all the focus areas. Further, he shared that their viewpoint is important because each Board member's varied backgrounds and skillsets.

Ms. Shaw asked for help from the Board to better understand where the market is heading, including what we are missing and where we should be focused on the marketplace. Additional request for guidance was focused on where the market is going and what we should be getting "smarter" on as we move forward.

Rebecca Hermanowicz, Senior Attorney, Ethics Office, Department of Commerce (DOC), provided the annual ethics briefing for the FACA Board. She shared that there seems to be a lag with completing the review of the financial disclosure reports. Ms. Shaw believed that all NTIS FACA Board members have completed their filings. It was stated that the work associated with the financial disclosures review will be completed this year.

Ms. Hermanowicz shared that the status of the AB members as Special Government Employees (SGE) and explained that most Government ethics rules apply to them. She shared with the AB members that they are part of the Board as individuals not representing anyone, including, but not limited to, employers, outside organizations, or any other entity. The AB seeks only the member's personal opinions and personal thoughts. She stressed that the members need to ensure there is no conflict of interest between their current employers, outside financial interests, and outside business relationships. Also, any government issued equipment and/or resources are only to be used for government activities.

One of the most significant areas is the use of the government title. As Board members, they can indicate their title as a part of personal social media and other titles. When speaking or writing personally they should demonstrate they are not speaking on behalf of the NTIS AB. As Board members, nonpublic information cannot be shared with the public.

AB members cannot be foreign agents or professional lobbyists. Board members can speak to general policy matters but should refrain from discussing partisan political matters using any Board resources, including Board time or while in the NTIS facility. Ms. Hermanowicz discussed general rules for gifts. If gifts are offered because of membership on the AB, this includes tangible as well as invitation, then members should talk with the DOC ethics.

Ms. Hermanowicz closed by asking if there were any questions. Dr. Trent asked about having the title on social media. She shared it was acceptable to have a title on social media as part of the biography; but cannot purport to represent the government or NTIS. This was followed up with a question regarding any limitations on the number of references or connections to other government agencies in one's title. Ms. Hermanowicz shared that it was fine to have multiple connections because each one is part of the government family. Again, she cautioned that as a Board member, you must be clear that any for any engagement, you may not position yourself as speaking or acting as a

government official when acting in a purely personal capacity but may not position as a government official.

Operations of the Service and Lines of Business Overview

Next, Mr. Strickland began with a quick overview of NTIS's organizational structure. He highlighted that the CIO position was recently posted. Then he acknowledged that Ms. Levesque and Mr. Baisa had been instrumental in ensuring NTIS was in compliance of all CIO requirements. He shared Chakib Chraibi has been active in the Office of Data Services even though it is a one-person shop. He noted that he was listed as acting in his titled role of Associate Director, Office Program Management (OPM) in the presentation but has been limited in focusing on OPM due to the new focus on directorship for the NTIS agency. Fortunately, the functional areas of Program Control and Data Transformation and Access are managed by Mr. Ramsey and Mr. Stanback, respectively. He shared Ms. Shaw is focused on the development of program outreach. Finishing the organization with comments on the OCFO, sharing that Ms. Patterson keeps us focused on being financially responsible as the Deputy CFO.

Mr. Strickland proceeded to provide an update on NTIS's federal complement stating that we have 34 employees with some vacancies. He shared some of the jobs have been posted to include the Associate Director positions for Data Science and Chief Information Officer. In addition, an overview of other HR actions was provided to include desk audits to upgrade 2 positions as well as reviewing for another IT project manager.

In the FY 22 Federal Employee Viewpoints (FEVS) Survey, Mr. Strickland shared NTIS had the highest scoring in the questions focused on promoting diversity and accessibility needs. He added this was a proud accomplishment, especially with so much focus on Diversity, Equity, Inclusion, and Accessibility (DEIA) within the federal government and this administration. The actual percentage for this element was 75%. A rating of 65% or higher is considered a strength. Additionally, NTIS demonstrates proactive support for advancing DEIA with our DTA work for the visual and hearing impaired.

The final overview comments began with NTIS still nurturing and growing the Data Science Innovation services. Mr. Strickland shared several areas that are statute mandated, such as Limited Access Death Master File (LADMF) and National Technical Research Library (NTRL). Mr. Strickland stated that NTIS is focused on new strengths, such as Project Lifecycle Management. To date, we have been evolving in the area of Project Lifecycle Management. Finally, he shared the business development efforts have been shaped by the OPD team. In conclusion, he stated that we want to deliver solid services to clients.

Next, Ms. Shaw, Associate Director, Office of Program Development (OPD), described the organization's structure. She shared it has remained unchanged since the last meeting. She provided an overview of the current customer engagement manager's portfolio. The OPM team normally manages the PM work; however, due to resources constraints, the OPD team members are serving as Project Managers (PM) on several NTIS projects. Bobby Khondker and Patricia Gresham are supporting Health Resources and Services Administration (HRSA) and the Office of Personnel Management (OPM), respectively. She shared that Mr. Holland is the Alternate DFO and manages the DoD portfolio. Ms. Gills manages her portfolio as well as the FACA due outs. Ms. Shaw
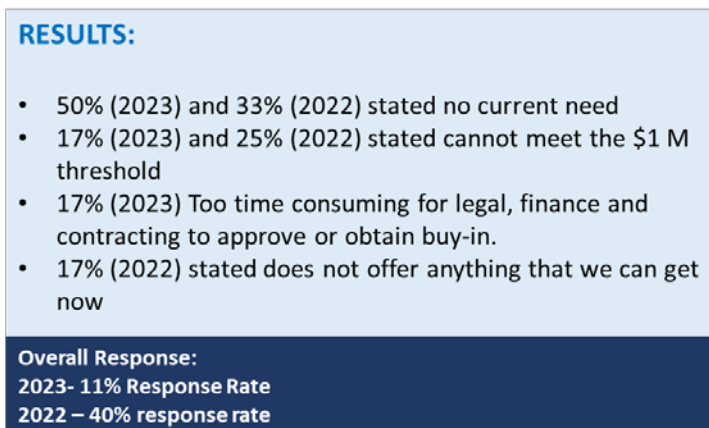
explained some of the agency alignments were due to past work.

She shared key points:
- OPD strives to engage agencies through research with the goal of securing a meeting;
- Works collaboratively with the Office of Data Services (ODS) and Office of Program Management (OPM);
- Maintains a continuous relationship with current and past customer base;
- Engages with new customers through a problem-solving methodology and market research;
- Assists with the development of training and awareness of NTIS offerings through workshops and annual events;
- Supports the three areas within the President's Management Agenda (PMA) of Information Technology Modernization; Data, Accountability and Transparency; and People and the Workforce of the Future.

There are key attributes in the team's research to help prioritize leads. Ms. Shaw disclosed the OPD team works very closely with the ODS. Some of the attributes the OPD team looks at includes new to the office, panel member discussion, JVP outreach, economy, COVID, climate, budget, innovations title, assistive technology focused (504/508), award recipient, etc. She asked the AB if there were other areas that we should include in the research and outreach.

As part of the ongoing efforts to improve outreach and understand the customer base, the OPD team continues to send out questionnaires with the following results:

RESULTS:
- 50% (2023) and 33% (2022) stated no current need
- 17% (2023) and 25% (2022) stated cannot meet the $1 M threshold
- 17% (2023) Too time consuming for legal, finance and contracting to approve or obtain buy-in.
- 17% (2022) stated does not offer anything that we can get now

Overall Response:
2023- 11% Response Rate
2022 – 40% response rate

The million-dollar threshold as a project size was shared as a possible barrier to entry. Aaron Burciaga asked about the timing of the million-dollar minimum. Mr. Caldwell shared that the threshold changed in the 2016 to 2017 timeframe with the $80K set aside. Ms. Shaw asked if a bifurcated path is an option - allowing for a different process for lower threshold projects that would reduce one of the barriers to entry. Historically, it was observed that agencies that start with a lower threshold typically build up to higher-level projects.

The overall outreach data points were shared. She provided the numbers of outreach and conversion to meetings as well as events for FY 2021, FY 2022, and May of 2023. Generally, the numbers have remained steady:

	May 2023	September 2022	September 2021
Outreach	404	803	514
Meetings	64	97	78
Events	40+	50+	51

Ms. Shaw shared the agency process to obtain and deliver solutions. These efforts involve three NTIS units: OPD, OPM and ODS. The overview included the Whiteboarding Process to include drafting of Problem Statement; Opportunity Announcement, Presentation; and JVP Award. She noted NTIS has a "light business touch" typically focused on PM work and invoicing. The JVP provides a pre-agreed percentage of the invoiced total dollar amount to NTIS as payment/revenue sharing. The current model does not have an O&M component. This was purposely adopted so as not to compete with the FAR. If there is forward progression in scope the agency can continue to utilize NTIS. Mr. Caldwell suggested that in the coming year, we re-evaluate our costs and reset the baseline.

There were ongoing discussions about the cost of the whiteboarding process of up to $80K to work with. Mr. Caldwell shared that the initial cost could be that high; however, over the years and working in a virtual environment, his personal estimate was more in the $15k to $25k range. Dr. Chraibi shared that the work downstream did not have those cost so overall the set-up is likely much less. Further, Ms. Patterson shared any monies set aside for the whiteboarding activities baseline that is not utilized is rolled back into the project funds. Ms. Shaw provided that sharing the $80K number can hinder working with NTIS. Mr. Caldwell agreed and believed that it is a perception issue.

Mr. Strickland thought that re-evaluating the model would be a valuable exercise. He believes if we show the value of $80K, there will be less focus on the amount. Dr. Chraibi believes the value of the process has a direct correlation to the project's success. One of the issues is ensuring the agency focuses on the right problem sharing that according to Gartner, 85% of data science projects fail, not by the technology itself, but by the execution of the technology, including addressing the wrong problem.

Ms. Shaw gave a quick overview of the NTIS competitors, including Other Transactional Authorities (OTAs), GSA's AI Center of Excellence and data analytics center, contracts, and the DoD process. The Competitive Analysis snapshot shows there are similar options within the federal space. The OPD team has worked to provide information on the competitive advantages using the NTIS model.

Finally, she shared the top three accomplishments and challenges for the OPD team. The accomplishments include the agency outreach, PM work for OPM and HRSA and

competitive crosswalk of potential placement opportunities. For the challenges she identified, resources, risks and the need for a review of the business model strategy.

NTIS's Office of Program Management overview began with the organizational structure. Mr. Strickland stated there were no structure and/or functional assignments changes. He described Tim Stanback' s operation as responsible for building management, facilities management, and the Data Transformation and Access (DTA) operation. The latter focuses on assisting the visual and hearing impaired. Mr. Strickland felt the DTA program was potentially most at risk during COVID. However, through implementing teleworking and with several rotational programs the DTA operations and services were maintained. He described Mr. Ramsey's responsibilities as overseeing the Program Control process, including the PM work, NTRL, Freedom of Information Act (FOIA), Records Management, Risk Management, and LADMF.

Mr. Strickland stated there are limited options for commercializing the NTRL. NTIS is mandated to provide free access to the public. NTIS continues to reduce the cost, and at one point the NTRL cost $7M. For this FY it is estimated to be $1.2 M. Additional cost-cutting efforts include investigating automation for the future. There appears to be repository opportunities within the federal government that may be able to utilize the NTRL infrastructure. The Minority Business Development Agency (MBDA) and the International Trade Administration (ITA) are seeking similar repository/clearing house services.

Mr. Strickland felt that agencies are not using NTIS because of a branding issue. He shared examples that NIST built an AI repository even with the close relationship with NTIS. Another example was a recent participation at the Federal Laboratory Consortium (FLC) where attendees pointed to the old NTIS mission of selling federal documents prior to the Internet. Mr. Burciaga asked not only to hear about a plan but wanted to know the vision to support the changing landscape in AI.

According to Mr. Caldwell, the focus has been on something other than the vision of NTRL but on cost coverage. He shared that NTIS is investigating appropriations for NTRL so that we can look more at the NTRL strategy.

An update on the scanning efforts of the microfiche records with Fairfax Public Schools was given. Mr. Strickland thought that it might have shut down because of COVID. Fortunately, the program resumed once schools reopened. While this partnership required NTIS OCIO support above their routine duties, the benefits of the program provided students technology training and contributed to the ingesting of documents into the NTRL. The goal is that this effort will springboard into adding the DC Summer Youth Program as well.

The LADMF continues to maintain a relatively stable list of customers. These customers impact a far greater audience. NTIS will continue to streamline the processes to maximize customer service.
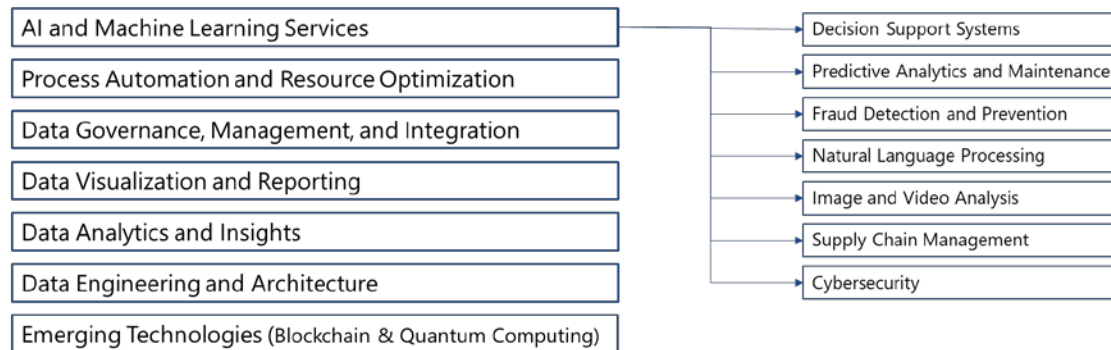
Selected data projects were shared that illustrates their national and international significance. Some projects include USAID PMI, NIST Forensics, DHS PARM, and FDA CDER BIMO. The DTA projects with SSA and Education updates were shared by the DTA project manager. A chart showing the increase in volumes was shared with the AB.

Dr. Chraibi gave an overview of the Office of Data Science's (ODS) role to foster data innovation and support federal data strategy mandates. ODS supports several agency

projects as a technical advisor and data science expert. He shared he is acting as the Associate Director noting there are other vacant Data Scientist positions. He stated NTIS is also helped by other federal employees who are interested in serving in this area. Initially, these resources were helping with the new JVP review, but several were interested in doing more work downstream.

One of his primary roles is engaging with the agencies and includes a team approach with OPD and OPM. Dr. Chraibi went through a scenario of how we work with other agencies to assist with solutions in this transformative environment. He noted that there are times when we build problem statement pro bono. Then he explored some of the transformative capabilities NTIS can provide through the JVP:

AI and Machine Learning Services		Decision Support Systems
Process Automation and Resource Optimization		Predictive Analytics and Maintenance
Data Governance, Management, and Integration		Fraud Detection and Prevention
Data Visualization and Reporting		Natural Language Processing
Data Analytics and Insights		Image and Video Analysis
Data Engineering and Architecture		Supply Chain Management
Emerging Technologies (Blockchain & Quantum Computing)		Cybersecurity

It is difficult to be a champion of change within the federal government. An important part of this process is to change the data culture. The JVP Authority is a unique approach that makes it even more challenging to get support for funding. After providing the scope of NTIS's capabilities, he shared several actual projects highlighting the President's Malaria Initiative that is literally saving lives. As background, in 2020, the World Health Organization reported worldwide malaria cases at 240 million with approximately 600k deaths, primarily impacting children under 5 years old. This work has international implications. Then an overview of HHS Inspector General projects, adding that we have 3 more projects since the last time the AB met.

Ideate, Conceptualize, Propose, and Implement are the steps in the process that Dr. Chraibi went into an in-depth discussion. He shared that the Merit Review process has been lauded as fair and transparent, noting that the evaluators were very impressed with this process.

Then the AB took a ten-minute break.

After the break, Mr. Caldwell reiterated that the 45-day to implement could be shaved to 30-35 days in a virtual environment. This process is continuously being refined; however, the virtual environment provides other challenges as part of the cultural shift.

Dr. Chraibi shared the list of the current JVPs. He updated the AB on the JVP status, sharing there is a FRN seeking additional partners to provide more access to data capabilities. As part of the JVP update, he pointed out there is a diverse mix of small, middle tier, large companies, and academic institutions currently participating. Dr. Gaddam asked for the plan to align to strategic direction and focused domains to evolve

the JVP capabilities. In doing so, he sees this as a practical application vs. research focus. He felt there is strength in more academic institutions as they are at the forefront of innovation.

Mr. Caldwell shared NTIS is working on the alignment of the JVP by functional areas sharing that due to resource constraints it would be a good project to analyze, map, and categorize capabilities. This work would provide foundational data points to determine shortages/areas to focus such as quantum, predictive analytics, and regenerative AI. Further, he shared NTIS is reaching out to "big" names such as G.E., Apple, and Georgetown Innovation Center led by a former director of 18F. Resource issues continue to plague these efforts. Dr. Chraibi thought the expansion of the JVP role would be beneficial by having them participate in NTIS sponsored events such as workshops/ forums.

Mr. Burciaga thought there was an incredible opportunity with academia, which is a vast area with critical "bumper crop" of applied AI that NTIS should be focused on. He suggested focused efforts on colleges that are developing new programs, such as Maryland, Florida State, and Miami Dade. He offered to facilitate an introduction. Two-fold connect to emerging technology in innovation and opportunities to identify potential new resources to assist NTIS.

Dr. Chraibi shared several case studies and then discussed NTIS' value proposition. The value includes access, accelerated innovation, and a proven agile framework. He shared the alignment with the DoC's mission and strategic goals.

He finalized the presentation with top accomplishments that include collaboration and active engagement, successful completion of merit review processes, and participation in various working groups. He shared specific examples of his accomplishments. Dr. Chraibi ended his presentation with the following challenges for the ODS to include resources, federal funding, and responsible AI. Further, he shared 83% of their budget goes to the DoD. The way to learn AI is to work directly on case studies and applications, basically hands-on experience.

Reporting for the Office of the CIO, Leigh Anne Levesque shared that Wayne Strickland is the acting Chief Information Officer for NTIS. She described her role as actively managing the infrastructure support division as well as covering the development area and production support division. She also explained how Bilal Baisa manages the security division. She highlighted that the OCIO is extremely thin on federal employees, with only 4 OCIO feds. One of the feds is planning to retire at the end of the year.

Ms. Levesque provided an update on the Federal IT Acquisition Reform Act (FITARA) briefing stating there are 4 non-major investments within the IT portfolio that she reports to DoC as a matter of exercise. There is a gap where our home-grown financial data system needs to be migrated to the cloud, sharing that the work has occurred with the DOC financial application and NIST. Additionally, she provided information on other IT efforts such as cloud migration, COVID adjustments to include remote work and laptop refresher.

The upcoming focus for the OCIO includes the NTRL and customer experience. The OCIO team would like to build an API and make the application more user-friendly. The same strategy will apply to the LADMF. Much of the time is spent on O&M, focusing less focus on future development. Another planned effort is with future updates on the service desk focusing on the customer experience. This effort could showcase the value of NTIS to our internal and external customers. Ms. Levesque stated NTIS is slowly closing down the data center; however, she shared NTIS will always have a small footprint on-prem.

The current goals include:
- Streamline and simplify workflows;
- Utilize Cloud-based infrastructure, application technologies, and tools;
- Establish DevOps to allow for in-house Development and improved systems

The OCIO's additional goals are to find cost savings for customers, improve quality processes through automation, and develop a service catalog of technology offerings.

Following Ms. Levesque, Bilal Baisa then gave an overview of the security. He shared that in addition to the ongoing work Ms. Levesque outlined, NTIS is involved with a variety of initiatives to include EO 14028 (Improving the Nation's Cybersecurity). The Commerce Department assembled a security task force that Mr. Baisa participated in. Additionally, he is working on a recommendation for networking requirements as part of the zero-trust architecture. He touched on CDM efforts. He ended the presentation with an update on M-23-13 to have federal networks ban TikTok across federal networks. He shared that NTIS was able to respond to this requirement very quickly.

The top OCIO accomplishments include implementing Zero Trust architecture, cyber security directives, and data transformation and access service projects. The top challenges for the OCIO are after three years, NTIS is not fully migrated to the cloud; O&M is the priority and resources. Dr. Gaddam asked about the transition to the cloud and Virtual Desktop Interface (VDI). Ms. Levesque responded that AWS workspaces are currently being used. Next, he asked about cost efficiency because of being de-coupled from agents.

Ms. Andrea Patterson, the Deputy Chief Financial Officer, shared the organization's structure had not changed, pointing out that the NTIS CFO is George Jenkins who is also NIST's CFO. The org chart also indicated multiple vacancies within the OCFO team.

The financial projection for this year is positive $1.2M. Ms. Patterson shared the financial overview by lines of business:

Line of Business		FY2020	FY21 March 2021	FY2021	FY22 March 2022	FY22	FY23 March 2023
Data Science Innovation Services	Revenue	$38,806,593	$15,057,483	$26,261,750	$8,248,926	$23,861,155	$16,263,102
	Cost	$37,188,881	$14,680,135	$25,859,350	$8,002,696	$23,363,624	$15,551,765
	Net	$1,617,712	$377,348	$402,400	$246,230	$497,531	$711,337
Data Accessibility Services	Revenue	$30,775,769	$14,342,770	$30,214,650	$15,524,755	$28,365,847	$15,813,109
	Cost	$29,168,292	$14,215,040	$29,613,251	$14,298,483	$27,661,950	$15,164,609
	Net	$1,607,477	$127,730	$601,399	$1,226,272	$703,897	$648,500
Data Subscription Services	Revenue	$5,911,872	$1,481,863	$2,666,519	$1,090,768	$2,029,148	$1,062,416
	Cost	$5,907,300	$1,666,735	$2,740,757	$1,246,775	$2,687,056	$1,233,083
	Net	$4,572	-$184,872	-$74,238	-$156,007	-$657,908	-$170,666
Legacy Business	Revenue	$4,032,343	-$2,452	$0	$0	$0	$0
	Cost	$3,068,362	$30,030	$34,632	$0	$0	$0
	Net	$963,981	-$32,482	-$34,632	$0	$0	$0
Technical Clearinghouse (NTRL)	Revenue	-$2,020	$0	$0	$0	$0	$0
	Cost	$1,920,343	$761,779	$1,541,938	$708,390	$1,480,167	$415,338
	Net	-$1,922,363	-$761,779	-$1,541,938	-$708,390	-$1,480,167	-$415,338

She shared that more new work and the many vacancies contributed to the positive bottom line. Both SES positions have not been filled and reflect positively on the net. Data science and DTA services are areas that we are doing well. The NTRL is losing some money. The NTIS team has been updating the pricing and shared that the cost for the cloud migration is reflected in these figures. Dr. Trent asked if there was a budget for the NTRL. Mr. Caldwell and Ms. Patterson shared that NTIS is investigating the possibility of appropriation in the future.

The top accomplishments for the OCFO are successfully implementing the G-Invoicing application, receipt of an unmodified audit opinion with no material weaknesses in internal controls or financial reporting for FY22 and meeting all due dates for the Q1 and Q2 reporting requirements. The OCFO challenges include cloud migration, contractor database rewrite, and Commerce transition to a new financial system. Mr. Burciaga shared a great time to frame capabilities.

After the break, recommendations from the AB focused on specific aspects of the business model. Dr. Gaddam asked about the fraud efforts with a specific request on the status of the fraud white paper. He discussed multiple fraud and cyber efforts with industry and academia sharing there were many exchanges on the dark web and attack patterns. With more public acceptance of AI applications like ChatGPT, he felt NTIS is better positioned to integrate more AI into applications such as the NTRL. Ms. Shaw provided that the fraud paper is still in review. Then she shared the paper will be part of collateral support material for outreach and education to agencies.

Dr. Chan inquired about NTIS's processes and materials for outreach and branding to potential customers. Her initial assessment was that repackaging some of the success stories to short impactful collateral support pieces might enhance the messaging. She recognized the time constraints for review and approvals to add/repackage new success stories; however, she believed this should be the next marketing effort. Further, it was suggested that the comparative analysis should expand to the profitability of the organizations/institutions. Regarding the DTA operation, Dr. Chan felt NTIS should be looking at moving it forward with technology solutions stating that CDs are becoming a less effective viable option for conversion. She asked about incorporating APIs and equipment considerations into the DTA strategy.

In response to Dr. Chan's questions, Mr. Caldwell responded that competitor's revenue and LOBs information is captured when available. He felt the long-term approach is a

thought leadership, programmatic leadership capabilities of the competitors. Regarding the DTA LOB, he shared there will be a FRN soliciting for partners in the DTA program. He felt the challenge is determining what that future looks like both privately and publicly in this space. Ms. Levesque shared it is not just the future, but the consideration is what we are able to do. This is integral to the discussion of the strategic next steps.

Mr. Strickland shared his views that we are in a competitive environment, and that we are not a corporation. Since we are the government, we are aligned to public service and cost structure. However, the JVPs allow for a competitive structure that provides opportunities to partner and build more robust applications. Competitive analysis should point us to where the opportunity for improved public services will exist.

Regarding Dr. Chan's advice on collateral support pieces, Ms. Shaw shared that a Features and Benefits (FAB) sheet could be a solution. FAB pieces have a direct correlation to the solutions and are written in a short impactful manner. The purpose of the current competitor analysis was as a training/learning tool for NTIS. The information helped us better understand the marketplace.

It was acknowledged that there is risk with so much dependency on the DTA project. Dr. Gaddam shared that may be hard to compete against some of the technology companies; however, a strategy where NTIS could be the only one in the marketplace is not bad. Mr. Caldwell shared concerns on the current DTA focus of hard copy suggesting that future efforts incorporate more digital copy. Dr. Chan thanked the NTIS team for sharing the efforts within the DTA program.

Next, Mr. Burciaga emphasized three areas for discussion: 1. Organization 2. Opportunities and 3. Mission Solutions. Mr. Strickland asked that we begin the discussion on Mission Solutions. Mr. Burciaga continues to feel there is an opportunity to hone-in on what NTIS would like to accomplish in the next year with the LADMF and NTRL. Further, he asked that NTIS consider the three thing they currently do and then focus on what are the three things NTIS wants to accomplish in the upcoming year? He believes that these efforts could be enhanced through a workshop. He offered that Mr. Strickland should consider bringing in the AB to participate in the workshop. The workshop could provide expanded capabilities for both the NTRL and LADMF that are needed within industries. He suggested many other companies such as airlines, financial, clinical services, life sciences, healthcare, and data brokerages as industries that could benefit from NTIS services.

Dr. Chraibi was asked for insights into the data services - specifically the outcomes such as the overall percentage that ended up as studies, pilots, minimum viable projects (MVP), and those that converted into operational assets. Mr. Burciaga felt that these outcomes should be tracked moving forward. Dr. Chraibi agreed that tracking outcomes will provide insight into tractions and impact; however, may be difficult to track because many projects are extension/continuation of other projects. Mr. Burciaga shared that we should not over analyze the process of capturing data points. Mr. Caldwell suggested every project has materialized as an MVP each year. Mr. Burciaga thought that we should take an inventory of outcomes and repeatable processes that could share with other agencies.

The Board recognized NTIS's challenges with resources but stressed we should always strive for measurable data points. Mr. Caldwell shared that we track the process timeline but understood the importance of additional data points. Ms. Zavala supported the importance of robust metrics taken in addition to the timeline being able to advertise the measure outcomes becomes very attractive to users. Perhaps, the JVP has to deliver a case study at the end of the project. Ms. Shaw shared she will check with legal if this is an option moving forward.

From the Organization perspective, Mr. Burciaga asked "What is NTIS' mission in the age of AI?" He also shared that NTIS should leverage the AB and their networks to create awareness of leadership positions. He shared that a monthly update on status would be helpful to advancing awareness from the AB. Also, he asked that we consider options for filling the vacancies providing that the average tenure for a data scientist is less than one-year. There are new models where there is a pool of data scientists to share as well as exploring outreach to academia.

For the Opportunities area, Mr. Burciaga felt that focused efforts on colleges would benefit NTIS. He asked that NTIS follow-up with him for contacts within the AI programs he helped set up. Specifically, he named Miami Dade, Jacksonville College, and Community College of California. The potential access pool is over 330 community colleges. An observation is that the industry is moving from Chief Data Officer to Chief Data and Analytics officer and NTIS should consider this position.

His additional comments focused on the NTIS business model and the $1M threshold for new work. Mr. Burciaga shared from his experience at AWS, the $1M for entry is too high. At AWS, the immediate work was signed at $300K to $400K range. He encouraged NTIS to refactor their approach to allow projects in the $200K to $300K range. This will enable NTIS to start small then scale fast. Further, he believes that communications should be integrated into other activities as we develop and complete new projects. NTIS could leverage, Responsible AI and professional societies to endorse and co-author within Responsible AI space. These efforts will heighten NTIS' exposure, endorsements, and brand.

Ms. Zavala was impressed at seeing the maturity of the organization and congratulating the employees for their efforts. She focused on outreach and asked that NTIS expand our outreach to the Chief Experience Officer as a POC. She supports the earlier discussions around the "blue collar" colleges as they have very talented people that are eager to work with organizations. Also, shared that a JVP effort toward Historical Black Colleges and Universities (HBCU) and graduate programs should be part of the strategy.

From a business perspective, Ms. Zavala feels that NTIS should not just focus on AI but build on the data aspect. She felt that agencies would benefit from data management and data readiness strategies. There are cloud data management assessment programs that could be explored. Edge AI is another option NTIS should explore. Prompt engineering is going to become an important aspect of analytics in the future.

Dr. Trent began by thanking NTIS for the invitation to join the AB. He recognized the

limited resources and understood the challenges to adopt AB suggestions. With that disclaimer, he asked that NTIS not be daunted by ideas set forth as they are initial thoughts.

He observed that it is not a normal role for academia to become a JVP. It was suggested that rather than the JVP role, the academic focus could develop as a complementary/sister program to help NTIS find JVP partners. In this manner, academia would not be aligned as a separate performer but as thought leader to NTIS.

The talent pipeline represents an issue not uncommon in government and industry. Dr. Trent shared that the talent pipeline is not efficiently fulfilled through job solicitations. A better method to attract talent is through sponsored programs targeting leadership and internships. Workforce development could emulate the Defense Civilian Training Corp program which is targeted to mid-career professionals and meant to give directed education and scholarships.

Dr. Trent agreed that additional data points were needed and added that a solid metric for the JVP is "what is the likelihood the partner would get business?". This metric would help with the assessment of becoming a JVP or moving to another OTA style award. He suggested adding to the competitive analysis white paper the comparison to Commercial Solutions Offerings (CSO) and Partnership Intermediary Agreements (PIA) stating these were more of a competitor than OTA. In addition, this difference would lend to a slick sheet or collateral support materials.

He supports Mr. Burciaga's position that $1M start-up budget is challenging and should be lowered. In support of a lower threshold, he shared NTIS needs a different model with boiler plates to reduce the cost of entry.

It was recognized the NTRL is not appropriated and as such recommends the following: 1. Stop doing, 2. Write issue paper, and/or 3. Introduce subscription model. The AB felt that moving forward, the FACA meetings should be focus on specific issues. This would allow NTIS to delve further into the concerns and potential solutions.

A future role for NTIS is supporting better data. Another suggestion is to have NTIS take a lead role by monitoring the programs and offer other agencies an evaluation on the impact of AI on people, technology, and data. NTIS could provide the as-is scenario then a roadmap for improvement as a 3rd party evaluator.

Mr. Strickland concluded the meeting by thanking the AB. He supported that future meetings should be focused on one issue. He committed for NTIS to be more engaging moving forward. Dr. Gaddam also thanked the team, recognizing NTIS's limited resources.

Ms. Shaw asked the Board to look at the past deliverables in the presentations for any updates and concerns.

The following items were closed/adopted:

1. Ms. Zavala suggested exploring positioning NTIS case studies in the ACT-IAC

Innovation Inventory. (new)

    Status: Closed- Sent several messages to ACT-IAC in Oct for inclusion and link to our website. Updates to FAI Periodic Table (8) (Liz)

2. Dr. Gaddam focused on the post-COVID actions at NTIS. Post-COVID represents a tremendous opportunity for talent acquisition absent geographical restrictions. He recommended seeking talent to include new college graduates/interns to augment the current staff. NTIS will investigate further and provide an update. (6)

    Status: Closed - NTIS will seek out college hiring and other programs, especially in light of the opportunities presented by potentially expanded widening remote work (Wayne)

3. Ms. Zavala added to the discussion asking about the ability to give data literacy training as well as workshop on data discovery session. This would assist with a more targeted pipeline. Mr. Burciaga shared he could get us in touch with Jordan Morrow, the "Godfather of Data Literacy." It was shared Mr. Morrow has provided sessions with the Department of the Army. (3)

    Status: Closed - The Commerce Learning Center has added several courses in customized Learning Paths, such as Data Analytics and Data Science, upon recommendations from the MADSkills WG, which Chakib is a member of. Example of resource: Data Literacy for All Bootcamp

This Bootcamp is designed for people who do not work in data analytics areas but do work with business and policy data, and for whom appreciating how to connect with data is vital to engendering a data-driven culture throughout their organization. "In this Bootcamp you will become familiar with data science concepts and terms, understand what it means to work in a data-driven culture, identify common issues in data collection and analysis, interpret data visualizations to make strategic decisions, and practice designing and developing a data project." (Chakib)

4. Dr. Gaddam asked if there could be a more in-depth survey created that could be generated for specific projects after the work is completed. (5)

    Status: Closed –The NTIS OPM team developed a survey and will look at the results (Wayne)

5. Ms. Walsh asked that NTIS anticipate future demand for AI regulations or future EOs. She emphasized how NTIS could support agencies with transparent and ethical AI frameworks. Mr. Burciaga suggested adding a "front door" to access information on NTIS.   He shared he could assist with exemplars for the front door concept. As part of this concept, Dr. Chraibi would like to explore adding whitepapers. (12)

    Status: Closed - Chakib has spearheaded the initiative to develop a Data Ethics Framework at DOC. OPD has developed a couple of outreach letters on specific topics to generate interest from agencies, including Defense Health and Fraud Analytics (Chakib)

6. Dr. Gaddam asked if NTIS has or can measure the social media engagement/outreach. Linked-in, keywords, and social media postings are a few areas for consideration. In the age of COVID, Dr. Gaddam felt that digital outreach opportunities are an important part of the outreach strategy (14)

Status: Closed – As of September 2022, the NTRL team has a new intern focusing on social media. (Wayne)

7. Mr. Burciaga shared the DoD Cybersecurity Maturity Model Certification (CMMC) suggesting NTIS consider Analytics Maturity model certification or Ethical AI certification.   (18)
  Status: Closed –This is a long-term objective as more resources are needed. No update at this point. (Chakib)

The following items are ongoing:

1. Mr. Capella shared there may be another metric that includes how many JVPs bid on a project. He will verify with legal who the data can be shared with or if it can be published. (4)
  Status: Ongoing (Wayne)

2. Dr. Gaddam asked if there is a way to tap into capabilities from a shared service model. This would resolve a level of complexity for the users of the DMF data. Mr. Capella shared this would take a legislative action. NTIS suggested this type of model to SSA as a value add. Mr. Strickland stated he would provide this as feedback to SSA. (1)
  Status: Ongoing (Wayne)

3. Dr. Chan asked if others could contribute or charge a fee toward the effort of forums. Mr. Capella said he would need to discuss options further with legal. (2)
  Status – Ongoing (Wayne)

4. Mr. Burciaga suggested the SBA and the registry of the hub zone certified could be valuable for the JVP program. (9)
  Status: Ongoing - On hold. We are working on how to handle JVP renewals for the moment. (Fmrly Randy - Wayne)

5. Mr. Burciaga was willing to share thoughts on additional organizations for promoting the JVP program. (10) This effort was part of the discussion at the MAY 22 meeting: "It was suggested that rather than the JVP role, the academic focus could develop as a complementary/ sister program to help NTIS find JVP partners."
  Status: Ongoing   We are working on how to handle JVP renewals for the moment (fmrly Randy - Wayne)

6. The Board is aware of companies that may be willing to help with digitization. Mr. Burciaga shared the Board could assist by asking for Mr. Strickland to follow up. (13)
  Status: Ongoing – The NTRL team would like to follow up on this offer during the 1st half of FY2023. (Wayne)

7. Mr. Burciaga suggested step 2 adding digitalizing to the initial FCPS work. (15)
  Status: Ongoing – (Wayne)

8. Mr. Burciaga brought forth an earlier idea of Analytics Maturity Model Certification for consideration with the NTRL. Further asked for consideration in the NTRL plan to include NTRL features, functions, or capabilities that could be shared as future releases

over the next 3-years. (16)

        Status: Ongoing – (Wayne)

9. Mr. Burciaga thought the idea may have some merit as a clearing house that could eventually be added to the NTRL supporting NTIS status in data brokerage. (17)

        Status: - Ongoing – (Wayne)

10. Mr. Burciaga recommended the OPM team meet to whiteboard actions toward the direction of quantified results for NTIS. He reviewed Nov 2022 Slides 22 and 23 recommending what happened as an outcome but shared we did not quantify as "man-hours", "lives saved" or "dollars and cents." He offered to participate. NTIS will schedule the meeting to include the Board members. (20)

        Status: Ongoing – (Wayne)

The following items are awaiting/pending a Director/ Resources:

1. Dr. Gaddam suggested outreach through events such as RSA, and cyber security events as another type of outreach. Securing a booth would allow sharing of information on how to work with NTIS and JVP. (7)

        Status: Pending – Recommend waiting for a new Director. Concerns with resources including bandwidth and funding. (Liz)

2. Ms. Zavala suggested NTIS explore offerings of AI trust assessment capability and ML operations insight. (11)

        Status: Pending –Resources needed. Chakib is continuing in staying involved in several initiatives towards implementing EO 13960, including participating in the Federal CDO Council Working Group on Data Ethics and Equity WG and ACT-IAC. Chakib has also presented the Commerce Data Ethics framework at the Commerce Data Innovation Forum. More resources are needed on the NTIS side. (Chakib)

3. Dr. Gaddam shared his willingness to assist with the R&D labs similar to the introduction to Carnegie Mellon (resources needed) (19)

        Status: Pending – Awaiting additional resources (Wayne)

4. Mr. Burciaga asked if there was any thinking toward a NTIS hack-a-thon. He felt that the large trove of data available coupled with the JVP could be the basis for the quarterly or semi-annual hack-a-thon. This may be an excellent incubator. This recommendation could allow NTIS to sponsor the "problem du jour" at one of the agencies (21)

        Status: Pending – Awaiting additional resources (Wayne)

5. Mr. Burciaga's organization focus included the impact of telework. He asked that NTIS consider how post-COVID changed how NTIS operates. He suggested NTIS looks at provided data for platforms as a JV opportunity – Analytics as a Service; insights as a Service and Platform as a Service. NTIS will investigate and provide an update. (22)

        Status: - UPDATE PENDING. New Director (Wayne)

6. Dr. Gaddam and Mr. Burciaga shared NTIS should explore focusing on cyber

specialization and cloud. Expressing that further consideration to an IT lead for a Center of Excellence (COE) on automation analytics and AI as well as cyber. He shared IT should consider having a person lead the COE and supporting the ODS team. NTIS will investigate the feasibility of a lead for the COE structure. (23)

Status: - UPDATE PENDING. New Director (Wayne)

The following items are new from May 22, 2023, meeting:

1. Mr. Burciaga suggested a revised business plan with a focus on the vision to support the changing landscape in AI. "What is NTIS mission in the age of AI?" He also shared that NTIS should leverage the AB and their networks to create awareness of leadership positions. (Wayne)
2. Develop collateral support pieces to include update on Fraud paper, competitive analysis and short impactful case studies. Adding to the competitive analysis white paper the comparison to Commercial Solutions Offerings (CSO) and Partnership Intermediary Agreements (PIA) stating these were more of a competitor than OTA. (Liz)
3. Develop additional metrics/data points to track (Chakib):
   a. for the JVP the likelihood the partner would get business;
   b. the outcomes such as the overall percentage that ended up as studies, pilots, minimum viable projects (MVP), and those that converted into operational assets;
   c. inventory of outcomes and repeatable processes that could share with other agencies.
4. Reassess the business model to include separate process for lower project funding threshold and incorporating colleges (Wayne):
   a. Threshold reduction - a different model with boiler plates to reduce the cost of entry. (Wayne)
   b. A future role to take a lead role by monitoring the programs and offer to other agencies evaluation on the impact of AI on people, technology and data. NTIS could provide the as-is scenario then a roadmap for improvement as a 3rd party evaluator. (Wayne/Chakib)
   c. Expand focus from AI building on the data aspect. Agencies would benefit from data management and data readiness strategies. There are cloud data management assessment programs that could be explored. Edge AI is another option that NTIS should explore. (Chakib)
   d. Mr. Burciaga asked NTIS to follow-up with him for contacts within the AI programs he helped set up (Wayne)
5. Outreach and research to include expansion to Chief Experience Officer (Liz).
6. Expansion of resources through colleges and discussion with the AB (Wayne)
7. DTA strategy to incorporate future market needs and update on FRN (Wayne)
8. JVP program refresher (Wayne):
   a. Incorporate Historical Black Colleges and Universities (HBCU) and graduate programs should be part of the JVP strategy.
   b. JVP has to deliver a case study at the end of the project. Ms. Shaw shared she will check with legal if this is an option moving forward. (Liz)
   c. Dr. Gaddam asked for the plan to align to strategic direction and focused domains to evolve the JVP capabilities.

A summary overview of the recent activities was shared:

Item #	Action Status	Action Numbers
1	Actions Completed	7
2	Ongoing	10
3	Pending Director/resources	6
4	New items	8
5	Total	31

Member Wrap up Discussion and Public Comments

Ms. Shaw opened the floor to the public, asking if anyone from the public had any comments. After hearing none, Ms. Shaw returned the meeting over to Mr. Strickland and Dr. Gaddam for the closing remarks.

Board Governance/Administration

The minutes will be shared and coordinated internally, and then with Dr. Gaddam. Absent no additional comments the meeting was closed.

Adjournment

I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

Ajit Gaddam

Dr. Ajit Gaddam
Chairman
National Technical Information Service Advisory Board

Mr. Wayne Strickland
Director (A)

These minutes will be formally considered by the Council at its next meeting, and any corrections or notations will be incorporated in the minutes of that meeting.