National Technical Information Service (NTIS)
Advisory Board Meeting Minutes
Nov 12, 2020
Virtual meeting

Attendance

The following board members participated in the meeting: Dr. Ajit Gaddam, Advisory Board Chair, Mr. Aaron D. Burciaga, Ms. Claire L. Walsh, and Ms. Diana M. Zavala.

NTIS senior staff participants included Mr. Greg Capella, Acting Director; Ms. Elizabeth Shaw, Associate Director; Mr. Wayne Strickland, Acting Associate Director; Dr. Chakib Chraibi, Acting Associate Director; Ms. Allison McCall, Acting Chief Information Officer; and Ms. Andrea Patterson, Deputy Financial Officer.

Welcome/Opening Remarks

Mr. Capella, the NTIS Advisory Board Designated Federal Officer (DFO), called the meeting to order and welcomed the NTIS board members, NTIS staff, and public attendees. He shared the information was open knowledge to the general public and that there would be members of the public participating in the meeting. Mr. Capella then briefly reviewed the agenda for the meeting and turned the meeting over to Dr. Gaddam to re-introduce the board members.

Dr. Gaddam welcomed the board members and each board member introduced themselves and provided introductory remarks. Dr. Gaddam recognized Avi Bender for his past leadership and best wishes to him on his retirement. Dr. Gaddam stated that a video conference was the next best thing to an in-person meeting and welcomed all attendees.

Mr. Capella walked through the agenda for the day, shown below:

NTIS ADVISORY BOARD (Virtual)	
National Technical Information Service	
November 12, 2020	
AGENDA	
I. **NTIS Mission and Operational Update**	
1:00 PM	**Call to Order and Introductions of Board Members**- Greg Capella, Acting Director and DFO; Dr. Ajit Gaddam, Advisory Board Chair
1:30 PM	**NTIS Update** Greg Capella, Acting Director, NTIS, US Department of Commerce
1:50 PM	**Legal Update** Eric Osterman
2:00 PM	**Operations of the Service and Lines of Business Overview**- Greg Capella, Deputy Director • Elizabeth Shaw, Office of Program Development • Wayne Strickland, Office of Program Management • Dr. Chakib Chraibi, Office of Data Services • Allison McCall, Acting Chief Information Officer

	• Andrea Patterson, Deputy Chief Financial Officer
3:00 PM	**10-minute break**
II. **Discussion with Board Members**	
3:15 PM- 4:00 PM	**Advisory Board Discussion with NTIS** • Guidance on the operation of the Service
III. **Summary and Close**	
4:00 PM- 4:15 PM	**Review Feedback and Action Items**
4:15 PM	**Member wrap up discussion and public comment**
IV. **Meeting Adjourns 4:30 PM**	

Director's Overview

Mr. Capella shared that deep cost-cutting and hard work put NTIS in a stronger financial position. This was further enhanced by NTIS staff being re-trained into new roles so they could remain in the organization and support the mission. The reported net margin shared by Mr. Capella was $2.3 M, which was more than $7.5 M above what was anticipated. Mr. Burciaga stated he thought the projected loss that NTIS forecasted for 2020 was $600,000. Mr. Capella acknowledged that it was the amount when the Board met on June 29, 2020, which changed was after significant cost-cutting had occurred. The difference referenced was what NTIS forecasted prior to 2020 and the significant cost-cutting activities.

It was reported that COVID-19 impacted NTIS with one employee who tested positive with the virus, the employee later recovered. The DOC took strenuous efforts to protect everyone including complete telework where possible and limited non-telework due to COVID-19. As part of the pandemic response effort, NTIS moved to telework.

One area that had to be addressed was in the assistive technology service projects. One project supporting the Social Security Administration, constituted over half of NTIS' 2020 revenue. At the start of the COVID pandemic the project could not be performed remotely. Through the internal efforts and working with the customers, NTIS was able to provide a solution for this project that maintained security and continue providing the service. This shift was completed in a period of weeks. A hybrid model was formed where some of the activities associated with the project were completed remotely and onsite with the staff fully protected. Completing other tasks such as sales-type activities have difficult, but we have been able to achieve everything needed in the remote fashion.

Organizational staff changes began with the retirement of Avi Bender, bringing the total of employees to 39. NTIS filled open billets in the Office of Program Development (OPD) and Office of Program Management (OPM) which brought the head count to 42 people.

NTIS continues to focus on revenue and growth. First, focusing on current business through a solid reputation and performance. Repeat business and word of mouth continue to be the best source of work for NTIS. NTIS is looking at leveraging the momentum within the federal

government around data science. The NTIS team's focus is to better mature data science and harness the value of the data.

There is a common theme across federal government agencies that they cannot hire. Mr. Capella explained that we could use the Joint Venture Authority to help them understand their needs and mature their data management processes in-house. He shared NTIS is looking to add classified work and that we have staff members that can support these efforts. The focus would be on Defense Department agencies to see how we can support the classified work. This would be a long-term opportunity. Mr. Burciaga asked how NTIS planned to scale up its Data Science skills. Mr. Capella responded that the data science team conducted in-house training, and that our team members are engaged in forums, seminars, and training to grow their understanding and effectiveness.

The U.S. Department of Agriculture (USDA) project is last project that needs to be transitioned from NTIS' previous mission space. This project is migrating to a new platform; however, due to a previous software glitch, the move has not been as smooth as initially anticipated. We are working with USDA to locate missing records.

NTIS will no longer be hosting the Drug Enforcement Administration's (DEA) Controlled Substances Act database. Mr. Capella reported that the DEA elected to bring the database in-house by November 17, 2020 so NTIS will no longer support this product offering. The impact of the loss of this work is twofold, which includes the recently developed website and reimbursement of the partial subscriptions to over 800 subscribers. The website costs are shared with the Death Master File (DMF) application so some of the costs are not a complete loss.

Since our last meeting on October 1, 2020, NTIS began transitioning its financial system to the Oracle-based Commerce Business System (CBS). CBS meets most NTIS' needs; however, the application does not manage subscription services such as DEA and DMF so NTIS is maintaining its internal solution for these services. Currently, the CFO team is dual entering data to make sure the new system is accurately recording the transactions. NIST has been very supportive of NTIS's effort and has lauded us on the great job, migrating the application.

Mr. Capella then discussed the December 13, 2019, Federal Register Notice seeking new Joint Venture Partners (JVPs). Mr. Capella shared there was a great response with many organizations already accepted as Joint Venture Partners. We will continue to update the website with the new partners as they are approved. A concern was shared that we have not had as many of the current partners apply yet.

Mr. Capella shared the status of the cloud migration, indicating the back-up site in Denver, Colorado is mostly migrated. A significant item at the site is the network gear for our disaster recovery. NTIS is cautiously approaching this to insure we have the connections available in case there is a requirement for disaster recovery during this migration. Most of the other functions are almost ready to cut over but we are still completing the security paperwork. Mr. Capella asked the participants if there were any questions. There were no questions regarding his overview.

Operations of the Service and Lines of Business Overview

Mr. Capella provided an overview of the NTIS organization, highlighting the numerous members of the senior staff were in acting roles. With the realignment and Reduction-In-Force (RIF) completed, he stated NTIS is working with HR to move the acting roles to permanent.

In 2018 and 2019, Early Retirement and Voluntary Separation Incentive programs (VERA/VISP) were offered to help NTIS reduced its federal staff. The programs received strong participation bringing the workforce to 40 federal employees. With the Director's, Avi Bender retirement and current hires, the NTIS staffing is currently at 42 employees.
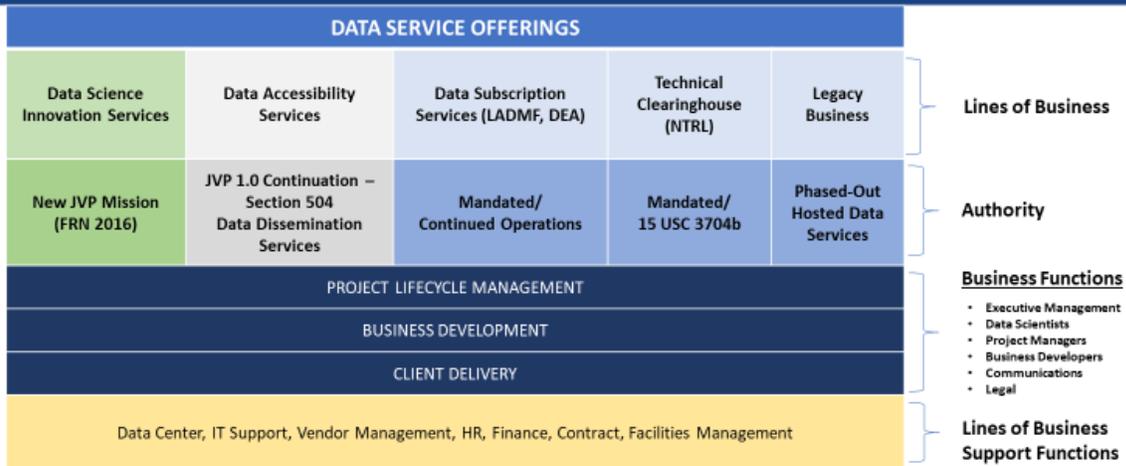
Mr. Burciaga asked Mr. Capella to elaborate on the training provided to re-skill the current workforce and on the future workforce as we extend into classified and data science work. Mr. Capella shared NTIS mostly filled roles that were held by contractors in the assistive technology services. He shared the data scientists have done internal training on data science to the current staff to help them understand and engage on Data Science projects. Moving forward, we may need to hire more technical skills as needed. However, the new hires' skillsets are more technical/detail-oriented with enhanced data knowledge through seminars.

With over 50% downsizing, Mr. Burciaga asked to better understand how such a dramatic downsizing was achieved, and if there were any other innovations taken and/or technological or procedural changes that were implemented to help achieve the results. Mr. Capella shared that he has very open communication with the team. He shared that he brought in the IT leadership and outlined the financial picture that was being forecasted. During this time, the CIO organization was almost half the total staffing of NTIS. Mr. Capella asked how NTIS could reduce costs while still maintaining the mission support. Through the interactions, NTIS undertook significant changes and streamlining such as standardizing the types of laptops and phones. Mr. Capella shared some items were not going to be funded so he asked for the IT's help on how to move forward and adopted those changes. It was the innovation of the NTIS employees that supported the downsizing changes.

Dr. Gaddam asked if NTIS were leveraging open source. Mr. Capella shared this was the direction; however, there are resources required and some learning curves with migrating legacy applications to open source. Additionally, efforts to use open source and the cloud were hampered by other project work such as the USDA migration that was shared earlier.

Mr. Capella shared the following slide noting that moving forward, we will have four lines of business, reinforcing that DEA work will cease and the right column, NTIS completed its long migration from the legacy work that had previously sustained the organization.

Next Ms. Shaw, Associate Director, Office of Program Development (OPD), described the organization including the introduction of two new members of the OPD staff. Background of the two new team members was shared - Ms. O'Connor's DoD background and Ms. Gill's background with the current NTIS projects. Ms. Shaw described how the team supported NTIS's mission by identifying new opportunities in FY20 and the updated focus in FY21.

Ms. Shaw shared that the OPD team has been attending virtual data events to better understand the marketplace. This training helps the OPD team better understand how NTIS can assist other government agencies. Due to the complexity of the data solutions, the OPD team works in concert with the Data Science (DS) and Program Management (OPM) operations. She described the collaborative sales process used as part of the outreach with a focus on the DS ability to hone-in on how NTIS may assist.

She provided that in FY 2020, the OPD team reached out to approximately 300 agency contacts. Virtual outreach required the messaging to be adjusted. She shared that OPD has moved toward three roles - transformation architect, growing accounts, and reaching new accounts. Ms. Shaw shared there was a shift in sharing knowledge through events. NTIS elected not to continue with its Data Innovation Day event; instead, focused on working with established organizations such as AFCEA, ATARC, and ACT-IAC. NTIS was able to meet with two different agencies from these events.

Ms. Shaw discussed the activities the OPD team will undertake in FY21 to include the DTA/Assistive technology work, JVP outreach, virtual events with a focus on project awards, current accounts, classified work, and the workshop in a box/virtual training for other agencies. She shared the team will continue with the outreach to the Chief Data Officers (CDO) to include the CDO Council.

For FY21, Ms. Shaw shared that the focus of the OPD team will be in four areas: Grow/Farm, Capture/Hunt, Transformational Architect, DTA/Assistive technology work and Maintain within

existing clients. Agency assignments of the OPD team were discussed. She shared concerns over the outreach in a virtual world to include the length of the sales cycle. Contributing to the length of time within the sales cycle included a lack of knowledge of the Joint Venture Partnership (JVP) Authority and introduction of the authority to other functional areas within the agency.

Ms. Shaw closed with sharing the four primary efforts that were provided by the new Administration of COVID, Climate, Economic Recovery and Racial Equality. Assignments and additional research within the new Administration is ongoing. The OPD team will continue with ongoing, high-impact projects that are making significant impacts with NTIS customers.

Ms. Zavala shared information through her role with ACT-IAC's Innovation Council that she has talked with the CDO Council chair, USDA's CDO Ted Kaouk. She believes outreach to the council could be valuable in support of fostering outreach across agencies' data community. Ms. Shaw shared NTIS had been in contact with Mr. Kaouk and through a virtual meeting was able to provide him with an overview of NTIS. Further, Ms. Shaw asked for additional ideas on how we may reach the council. Ms. Zavala suggested further conversation may be an appropriate next step.

Mr. Burciaga was intrigued by the Capture/Hunt and Farmer/Grow strategies and asked about collateral support materials. He was looking to assist with the review and help develop materials. Ms. Shaw shared that as material were developed with the focus on the end-user's perspective. Mr. Capella shared his appreciation of Mr. Burciaga's offer to review the collateral materials.

Dr. Gaddam asked about the metrics specifically focused on the effectiveness of current outreach as opposed to pre-COVID outreach. He asked the focus of NTIS customer engagement metrics. Ms. Shaw shared her first metric is related to the response rate and second, that in the virtual environment adjustments were made to the messaging and strategy. Mr. Capella shared we are refining our techniques within the COVID environment. Dr. Gaddam asked for insight into how we are using technology to include CRM and whiteboarding tools. Ms. Shaw shared that NTIS does not have a specific CRM application. Further, Mr. Capella shared NTIS has been frugal with CRM technology purchases and have not had the resources to undertake a CRM implementation at this time.

Eric Osterman, Attorney from the Ethics office, provided the annual briefing for the advisory board, reminding that the members are considered Special Government Employees. As such, FACA members must file the annual financial disclosure report, OG Form 450. He reintroduced some of the ethics rules that impact board members to include gift, employment, and political activity rules.

Mr. Strickland, Acting Associate Director, Office of Program Management (OPM), described the OPM organization chart outlining the roles and responsibilities for the staff. Mr. Strickland shared insights into the OPM staff that was re-trained and placed into NTIS data mission supporting roles. Then, Mr. Strickland highlighted the on-boarding of the new IT Project Manager positions and the focus on project life cycle management activities as new projects are signed on to NTIS.

Mr. Strickland shared that the OPM team will continue to grow their project specific skills in support of NTIS' mission and strategic goals. Mr. Strickland stated that within the Data

Transformation & Access (DTA) unit, the focus on current accessibility formats will extend to exploring technology options for future needs in this area as well.

The OPM team has a critical role in facilities management. With the onset of COVID-19, the responsibilities became even more critical for NTIS in terms of appropriate building access, safety and sanitization maintenance for the limited onsite staff working for the DTA projects.

Mr. Strickland then discussed the efforts on the Program Control operation. With the onboarding of new IT Project Managers, stronger focus will be on project life cycle management inclusive of a more intense training on invoicing and other bureau best practices for accounting, legal, and client relationships support. Mr. Strickland shared that there are additional Department of Commerce reporting activities such as Freedom of Information Act (FOIA), Risk Management, Records Management, and Public Affairs guidance that are part of the OPM team responsibilities.

Mr. Strickland shared an overview of selected data projects to demonstrate benefits delivered both to the Nation and the World such as USAID Presidential Malaria Initiative (PMI) and DTA projects with the Department of Education, Social Security Administration, and U.S. Department of Veteran Affairs. Mr. Strickland reported that subscription access to the Drug Enforcement Administration (DEA) controlled substance database project will be retired on November 17, 2020 at the request of DEA. OPM worked with the NTIS OCFO to carryout closeout activities of DEA customer subscription cancellations, refunds and working with NTIS OCIO for decommissioning systems.

Mr. Strickland provided a brief overview of the Limited Access Death Master File (LADMF) as the only authorized distributor of social security information of deceased individuals that is collected and managed by the Social Security Administration to support every organization with fiduciary duties that need to manage fraud, waste and abuse prevention. Additionally, OPM ensured that there is only certified access to the LADMF, with over 91M records, as mandated by Congress in 2013. Customer subscription pricing for the LADMF is based on a cost-recovery model.

Mr. Strickland reviewed the OPM team responsibility for maintaining public access to the National Technical Reports Library (NTRL). With a goal of greatly reducing cost to satisfy this mandate, the OPM team has begun reaching out to the individual federal science agencies to set up automated content feeds of the federally funded scientific and innovation content. NTRL is not an archive with a limited lifespan; it is a perpetual repository of more than 3 million records. Mr. Strickland announced that social media marketing is being used to create awareness and highlight the collection benefit for the promotion of American economic growth.

Mr. Burciaga shared that NTRL is a "hidden gem" asking for insight into innovations to make NTRL a more valuable and relevant, and searchable tool. Mr. Strickland shared that the academia world is aware of the NTRL's value to the research and corporate communities. Mr. Strickland shared that he was very active in the American Library Association (ALA), providing federal science updates to the association twice a year. Although, there are approximately 3 million records within the NTRL, only half of the records have been digitized. In an effort to digitize more of the legacy collection, Mr. Strickland shared information about an overview of a student intern partnership with the local high schools. Mr. Burciaga reemphasized that he felt

that the NTRL could be monetized and made significantly more valuable and that he was willing to assist with this effort.

Dr. Gaddam suggested that natural language processing might be able to assist NTIS in processing the NTRL content and suggested that NIST may have technologies in this space that NTIS could leverage. Mr. Strickland welcomed the exchange on modernization and efficiencies for the NTRL.

Mr. Burciaga asked for an assessment of the strengths and gaps within digitizing and other technologies in use for NTRL. Mr. Strickland shared there are gaps within automating the intake/ingest of federal agencies and laboratories content. A challenge for the OPM and OCIO teams is identifying and establishing technologies to overcome these gaps. The goal is to eventually automate processes for ingesting the legacy tangible (paper and microfiche) record as well as digitally born documents and ensuring a modern ease of access to the NTRL. Mr. Capella added NTIS looked at automated microfiche feeders but it was very costly and the effort was not undertaken. Further, he shared that NTIS is scanning the collection on a time available schedule. He shared that NTIS is seeking appropriations in support of the NTRL. The request is under departmental review and discussions. The request has not yet been submitted to Congress.

Mr. Burciaga asked if NTRL has a future road map for the evolution over the next 3-5 years. Mr. Strickland stated that the OPM team has been focused on prioritizing cost reduction and that a NTRL project plan is being drafted.

Dr. Gaddam asked about LADMF program costs, specifically inquiring on customer feedback, and short term vs. long term off-sets. Mr. Strickland shared that NTIS follows the Office of Management and Budget (OMB) guidance and documentation procedures to justify all pricing. Ms. Patterson added that we will be looking at the pricing this fiscal year as a result of the new allocation methodology and new finance system. Mr. Capella shared that pricing is mandated by law on a cost reimbursement basis for LADMF.

Dr. Chraibi, Acting Associate Director, Data Service (DS) described how the data services office supports the mission of NTIS by assisting federal agencies in their quest to leverage data as a strategic asset and harness innovative technologies to achieve their mission outcome. The DS team consists of Dr. Chraibi and Dr. Lee. They act as technical advisors and data science experts. He shared that Dr. Lee currently acts as the Program Manager for the Joint Artificial Intelligence Center (JAIC) and shared the portfolio assignments.

Dr Gaddam asked whether the work with the JAIC and DHS included significant efforts in cybersecurity. Mr. Capella responded that although there has been interest, previously the lack of clearances had limited these opportunities. Now that NTIS was obtaining clearances, we are hopeful that NTIS will see opportunities in cybersecurity.

Mr. Burciaga stated that for NTIS to succeed in cybersecurity opportunities that NTIS needed to prepare and develop frameworks that can be re-leveraged.

The DS team collaborates with the OPM and OPD functions for ongoing opportunities and the capability statement. Dr. Chraibi shared the DS supports events, forums, and panels to include ACT-IAC, AFCEA, and ATARC. The team expands their knowledge through training to stay

abreast of emerging technology. Dr. Chraibi shared the data science role in reviewing any JVP submissions.

Ms. Walsh asked how many data scientists NTIS has currently. Mr. Capella stated that there are two data scientists in NTIS who are leveraged across projects and NTIS would hire more as needed depending on demand.

Dr. Chraibi shared the value proposition is operationalized by the NTIS innovation framework that is based in design thinking and agile methodology. This framework is innovative and unique within the government. Dr. Chraibi provided details into the innovative process for obtaining solutions. He provided an overview of the NIST Forensic Science Interactive Process Maps project. He shared the pre-COVID vs. COVID process that was used for the discussion of this whiteboarding session.

Dr. Chraibi discussed the role of the DS team in the DOC Data Governance Board and Federal Data Strategy. All efforts align to Federal Data Strategy and the Foundation for Evidence-based Policy Making Act which is central to the vison to modernizing the federal government and driving data innovation. For the 2020 Federal Data Action Plan, NTIS has supported actions 3,4 and 6.

He shared an overview of the work on the Federal Government Data Maturity Model (FDM). For the NTIS model, Dr. Chraibi shared that we augmented the FDM with elements of the SSA Model to include the "People," "Analytic Opportunities" and "Technology" components to better assess Talent Management and Business Process Optimization to execute our mission.

Mr. Burciaga asked about the systems in place to benchmark the FDM. Dr. Chraibi explained the FDM is a very high-level model. Ernst and Young has supported NTIS through the development of a survey and the analysis of the results that can be used as a baseline.

Dr. Gaddam referred to the NIST forensic project and any reference to Optical Character Reader (OCR) technology focused on the process map. Dr. Chraibi shared this may be explored as one of the components as they move forward.

Dr. Gaddam referenced the notes from the last meeting and was interested in any cybersecurity activities and work on any misinformation/disinformation campaigns. Dr. Chraibi stated that NTIS was engaged in these areas and discussed two cyber projects, one with the Department of Defense's JAIC and another with the Department of Homeland Security's National Risk Management Center (NRMC) that focused on Cybersecurity. He shared that one is of potential interest deals with sentiment analysis within national security. Mr. Capella shared that NTIS had engaged with multiple organizations within the cyber space over the last few years but that not having the ability to perform classified work has hampered NTIS efforts. His belief is that having cleared staff will allow NTIS to have more traction in this space.

Ms. McCall, the Acting Chief Information Officer, described her organization sharing that her team is now a staff of five Federal employees. She stated that her organization had been significantly impacted by the cost-cutting efforts, RIF and VERA/VSIP offerings, feeling that it would have been even more difficult if she had not had one of the best CIO staffs in the federal government.

Ms. McCall shared the efforts surrounding the cloud migration. Speaking to the successes, she provided an update that most of the Denver site has been migrated to the cloud. Some of the challenges include older systems and maintain security. All the Authority to Operate (ATO) documentation had to be updated while maintaining the current ATOs. New tools have been introduced in the cloud environment as well as a new firewall for added protection. The next migration will be the SSA project.

She discussed the benefits of cloud migration that were shared previously. Cloud migration will allow NTIS to use new technologies and experiment while lowering the upfront infrastructure investment. Ms. McCall shared NTIS will modernize rather than replace our aging infrastructure. The cloud will allow NTIS to be more flexible as NTIS balances the dynamics of the changing customer base.

Mr. Burciaga asked about preparedness for increased demand and opportunity within the cyber space. Ms. McCall shared the CIO team is very prepared for the new opportunities.

Dr. Gaddam noticed the specific implementation of cloud trail and asked about NTIS' staff responses to the incident logs or information provided by a managed service. Ms. McCall responded that NTIS was using Acamai. However, she clarified that other software tools are in use and that Cloudtrail might be out of the picture. All tools are being assessed for current and future use while balancing the costs.

Dr. Gaddam asked about the disaster recovery site, whether it was a hot backup, and the general line of thinking about the service requirements. Ms. McCall shared the needs vary by the agency weighing the cost, customer and systems. However, as NTIS moves to the Cloud, we will have environments both in Amazon Web Service (AWS) East and West, we will the ability to switch quickly.

Ms. Patterson, the Deputy Chief Financial Officer, shared her organization's structure had not changed from the previous meeting. She shared the main change was to the Commerce Business System (CBS), a new financial system. The moved to CBS eliminated the risk associated with our legacy databases. CBS had been implemented throughout the Department of Commerce with the exception of NTIS and USPTO.

The CBS move will help with the deployment of the Business Application Solution (BAS) that will be the new solution for the Department of Commerce. Ms. Patterson shared that NTIS will move to the new solution at the same time as NIST in FY23.

Next, Ms. Patterson provided the NTIS financial status by the line of business. Ms. Patterson stated that there was a significant improvement from the beginning of the year forecast and the net of $2.3 M reflected reductions in costs, especially in staffing costs, and an unexpected increase in revenue. A reduction of the NTRL loss to $1.9 M which was considered significant when compared to prior years.

In FY21, Ms. Patterson expects a slight profit with the revenue steady at $74-75M and costs at $74.5M. Impacts to this projection include COVID and the Continuing Resolution (CR).

Mr. Burciaga recognized the efforts of the data science team sharing the difference between the June report and the end of year, noting the growth was approximately 400 percent. The data subscription services showed a sharp decline, and he was interested in the background. Ms. Patterson shared that this is in part due the allocation methodology and will research further. She shared that the elimination of other lines of business could be part of the impact citing the IT cost and allocation methodology. Mr. Strickland added the LADMF customers dropped considerably once NTIS implemented the certification process and that would have an impact of the revenue. Mr. Capella shared the NTRL cloud migration costs were reflected in FY20.

Mr. Burciaga believes the NTRL represents a hidden opportunity. He shared the data subscription services could provide us the biggest net. Mr. Capella was open for suggestions as this was an area that could provide a lot of value.

Dr. Gaddam asked if purchases were being amortized. Ms. Patterson shared there have been no purchases where the costs were high enough to amortize. In FY19, a purchase met the thresholds to amortize. Mr. Capella asked if the reference was on contractor and developer costs. He shared we are currently direct costing those efforts.

Mr. Capella announced a 10 min break.

Advisory Board Discussions/Recommendations for NTIS

After a short break, the Advisory Board came back into session to discuss what had been shared and to provide additional feedback focusing on how to move forward, what NTIS can do to improve, and capabilities to target.

Ms. Walsh shared the financial numbers and growth was helpful. She was interested in how NTIS looks at the "buy vs. build" landscape with the new low-code or no-code tools being offered within AI and data science space. Mr. Capella shared we do not drive the customer's solution with respect to configuration tool vs. code from scratch or a self-learning engine, because the customer drives the implementation as the Agile lead on the project. NTIS advises and engages in the customer reviews but that choice is the customers.

Dr. Chraibi shared there are a lot of new tools in the artificial intelligence and machine learning areas and the importance of adding to our JVP list to enable NTIS to stay relevant in the fast-changing landscape. He focused on looking at start-up and advance tools within the smaller companies. Our framework allows NTIS to add these capabilities to our solution offerings. Dr. Chraibi shared NTIS also reaches out to universities and research centers in order to bolster our capabilities. Dr. Lee talked about the new capabilities resulting from the JVP announcements. Ms. Walsh felt the rolling addition of JVPs is a great way to keep the offering current.

Mr. Burciaga shared four areas of focus:
1. Data Science
2. Data Science Part 2
3. Services
4. Organization

Within the data science area, Mr. Burciaga asked if there was any thinking toward an 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 excellent incubator. This recommendation could allow NTIS to sponsor the "problem du jour" at one of the agencies.

The second area focuses on cyber specialization and cloud, Mr. Burciaga shared his experience with Center of Excellence (COE) around automation analytics and AI as well as cyber and cloud. He shared OCIO should consider having a person lead the COE and supporting the DS team. Dr. Gaddam supported the cyber COE sharing there always a budget for cyber solutions.

Governance and data quality are another area that Ms. Zavala recommended further investigation. Mr. Burciaga's Data Science Part 2 focuses on making the data maturity model repeatable. He suggested creating the Federal version of a register to take an assessment. He felt the NTRL could be used to mine for a framework metrics standard to create dashboards, ultimately creating a product would be advantageous and drive engagement as well as traffic. This could be used to add additional services to the data science projects. He recommended advancing innovation by judging the projects by, is it an emerging concept or innovative technology. If not, NTIS should question if we should bring in the project.

Mr. Burciaga recommended focusing on awards and applying for them. Nominations could bring NTIS recognition. He shared as we moved into classified work, the dynamics change and to be aware of the security requirements.

Ms. Zavala recommended the ACT-IAC Innovation Inventory could be incorporated into the project methodology where success stories could be published increasing visibility. Dr. Chraibi shared NTIS recently participated in ACT-IAC Ignition award. Mr. Capella clarified the process within the data science projects sharing it is a team effort. Mr. Burciaga suggested that the NTIS should codify processes and leverage these in its projects.

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 look at providing data for platforms as a JV opportunity – Analytics as a Service; Insights as a Service and Platform as a Service.

Ms. Zavala asked whether NTIS captured metrics on the impacts of NTIS projects which could be leveraged in presenting NTIS value to other customers. Mr. Capella shared that NTIS has some metrics and we are trying to obtain customer advocates since word-of-mouth is the most productive method NTIS has had in obtaining business. Ms. Zavala stated that the NTIS data science offerings would have particular value in analyses of lethality, economy and growth and NTIS should seek these opportunities out. She also stated that NTIS should consider offering additional services as added value options in its projects.

Within the service recommendation, Mr. Burciaga suggested NTRL as a Service and NTRL as a governance service. He reviewed Slides 22 and 23 recommending what happened as an outcome but shared we did not quantify as "man hours", "lives saved" or "dollar and cents." Mr. Burciaga suggested the OPM team meet to whiteboard to move toward the direction of quantified results.

He shared the largest opportunity should be in the NTRL and data subscription comparing the opportunity to Netflix and iTunes. Mr. Burciaga offered another session to assist with this

initiative. Dr. Chraibi affirmed but emphasized that opportunities are in the data innovation sphere.

Dr. Gaddam focused on our post-COVID actions within the organization. Post-COVID represents a tremendous opportunity for talent acquisition absent the geographical restrictions. He recommended seeking talent to include new college hire to augment the current staff.

Review Feedback and Action Items

Mr. Capella reviewed the open action items from last meeting:

1. Dr. Gaddam stated that a video conference would be more effective if we needed to continue socially distance and NTIS concurred and state that the video conferencing services was now purchased, and a video conference would be our preferred approach going forward.
   Status: Completed. NTIS is hosting the next meeting via WebEx.

2. Ms. Zavala … mentioned that we should engage with the Executive Leadership Conference in October 2020.
   Status: Complete. NTIS engaged with and attended the conference.

3. Mr. Burciaga stated that to be effective in our outreach NTIS should create case studies that highlighted challenges and results from our work, as well as a one pager that captures potential customer's attention. And NTIS should have a 30 second summary of what we are and why a customer should engage with NTIS. NTIS stated it had case studies and one pager that we would share with the board.
   Status: Complete. Mr. Capella sent this to Dr. Gaddam after the meeting to share with the board members.

4. Ms. Zavala mentioned that workshops around data literacy, ethics, and privacy assessments are areas that NTIS should consider as potential new target for federal services as these appear to be under served currently.
   Status: Complete. Participation in and contribution by Dr. Chraibi in the ACT-IAC White Paper: Ethical Application of AI Framework.

5. Ms. Zavala proposed putting NTIS in contact with USDA CDO Ted Kaouk, who is USDA CDO and now will lead the federal CDO council. She recommended participation to the ACT-IAC Executive Leadership Conference (Oct. 26-29). Ms. Shaw shared that NTIS had already reached out previously to Mr. Kaouk and would appreciate an introduction.
   Status: Complete. NTIS met with Mr. Kaouk and coordinated a speaking engagement with AFCEA. Recently, NTIS staff reached out to see if we could present to the CDO Council.

6. Dr. Gaddam mentioned privacy issues with AI-based face recognition and Ms. Zavala and Mr. Burciaga raised issues as well as about ethics. These are areas that federal agencies would need to tackle as they embrace emerging technologies.
   Status: Complete. Participation in and contribution by Dr. Chraibi in the ACT-IAC White Paper: Ethical Application of AI Framework.

7. Dr. Gaddam stated that NTIS should consider not going to just one Cloud provider so that it could avoid vendor lock in. Ms. McCall agreed that it would be a NTIS goal to avoid lock in and that after the initial migration of NTIS to the Cloud she would look at how NTIS might diversify its Cloud services.
   > Status: Ongoing. NTIS competed its current Cloud provider effort and is in the process of implementing its initial migration. NTIS will seek alternatives as it recompetes the effort.

8. Mr. Capella stated that he would be coordinating the minutes of the meeting internally, and then with Dr. Gaddam. He would then post the minutes on the FACA site provided by GSA.
   > Status: Complete. Minutes were sent and coordinated upon by Dr. Gaddam.

The Designated Federal Officer (DFO) will change to Elizabeth Shaw.

Action Items and Recommendations for the Next Meeting

1. Ms. Zavala proposed meeting with to discuss approaching the CDO Council and another meeting with USDA CDO Ted Kaouk. Meeting will be scheduled with updates provided at the next FACA meeting
2. Mr. Burciaga offered to assist with the review collateral materials. Current materials will be provided to the Board.
3. Mr. Burciaga asked if NTRL has a future road map for the evolution over the next 3-5 years. Mr. Strickland will share with the Board the 3-year plan once completed.
4. Mr. Burciaga recognized the efforts of the data science team sharing the difference between the June report and the end of year, noting the growth was approximately 500 percent. The data subscription services showed a sharp decline, and he was interested in the background. Ms. Patterson shared that this is in part due the allocation methodology and will research further. Updates will be provided to the Board.
5. Mr. Burciaga asked if there was any thinking toward an NTIS hack-a-thon. He felt that the large trove of data available coupled with the JVP could the basis for the quarterly or semi-annual hack-a-thon. This may be excellent incubator. This recommendation could allow NTIS to sponsor the "problem du jour" at one of the agencies. NTIS will explore and provide an update at the next FACA meeting.
6. Dr. Gaddam and Mr. Burciaga shared NTIS should explore focusing on cyber specialization and cloud. Further consideration to an IT lead for a Center of Excellence (COE) on automation analytics and AI as well as cyber and cloud. He shared IT should consider having a person lead the COE and supporting the DS team. NTIS will investigate the feasibility of a lead for the COE structure.
7. Mr. Burciaga recommended focusing on awards and applying for them. Nominations could bring NTIS recognition. NTIS should investigate further and incorporate awards into their processes
8. Ms. Zavala recommended the ACT-IAC Innovation Inventory could be incorporated into the project methodology where success stories could be published increasing visibility. NTIS will investigate and provide an update.
9. 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.

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

11. Mr. Burciaga recommended NTRL as a Service and NTRL as a governance service. NTIS will investigate and provide an update.

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

13. Mr. Burciaga shared the largest opportunity should be in the NTRL and data subscription comparing the opportunity to Netflix and iTunes. Mr. Burciaga offered another session to assist with this initiative. NTIS will schedule a session to investigate and explore further.

Member Wrap up Discussion and Public Comments

Mr. Capella asked if anyone from the public had any comments. After hearing none, he turned the meeting over to Dr. Gaddam for the closing. Dr. Gaddam shared that it was gratifying to see NTIS powering through the COVID challenges. He congratulated NTIS team on the success and the vision coming together. Ms. Zavala agreed with him further sharing she sees the excitement coming through in everyone's voices. Mr. Burciaga commended the NTIS team on their growth and improvement and was excited on the path forward. Ms. Walsh felt this was a very impressive year for NTIS.

Board Governance/Administration

Mr. Capella stated the next meeting will likely occur in the March/April timeframe since the weather has a limited impact. The minutes will be shared coordinated internally, and then with Dr. Gaddam. Mr. Capella closed the meeting.

Adjournment

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

Dr. Ajit Gaddam
Chairman
National Technical Information Service Advisory Board

Mr. Gregory Capella
Director (A)
National Technical Information Service

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.