

Advancing Mission Success Using Innovation and Technology: Insights from Sanjeev “Sonny” Bhagowalia, Assistant Commissioner, Office of Information and Technology, and Chief Information Officer, U.S. Customs and Border Protection

By Michael J. Keegan



The U.S. Customs and Border Protection (CBP) protects our nation’s borders from terrorism, human and drug smuggling, and illegal migration while simultaneously facilitating the flow of lawful travel and trade. Its mission is vitally important for the protection of the country and the national economy.

To protect the American people, safeguard our borders, and enhance the nation’s economic prosperity, CBP depends on its ability to navigate through change and anticipate the future while never losing sight of its core mission. Doing so requires investment in innovative technology, reliable IT tools, and intelligence capabilities to anticipate and confront ever-changing dynamics.

“My office,” says Sonny Bhagowalia, assistant commissioner of the Office of Information and Technology (OIT) and chief information officer at CBP, “has been increasingly called on to meet the challenges of an ever-changing environment.” He recognizes that to be successful his agency requires a resilient, adaptive, reliable, and secure IT infrastructure that keeps pace with evolving threats and technological advances.

Sonny joined me on *The Business of Government Hour* to share his insights on CBP’s mission, its strategy for IT modernization, and how the agency is using technology to change the way it does business. The following is an edited excerpt of our discussion, complemented with updated and additional research.

What is the mission of your office and how does it support the efforts of CBP?

 CBP has a tremendous 24/7 global mission. In adherence with authorities and the U.S. Department of Homeland Security’s (DHS) mission goals, the OIT works collaboratively across DHS agencies to support and accomplish key initiatives for cost savings, operational efficiency, and national security. My office supports the CBP mission in a variety of ways, including leveraging the agency’s unique authorities, data holdings, intelligence enterprise, and partnerships.

We increase situational awareness to impede and respond to illicit cross-border traffic. We’re leveraging cutting-edge technology to transform traveler verification and dramatically reduce the need to verify physical travel documents. We integrate classified and sensitive information to improve travel and immigration decisions. We also help facilitate lawful trade and business, while recruiting and training the most qualified people. It’s not an eight-to-five job.



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In FY21, we achieved some of our best results ever. Even in the age of COVID, we successfully managed border surges, the Afghanistan evacuation, and cyberattacks. In FY22, we look forward to continuing to provide best-in-class IT services—where and when they’re needed.

What are your specific duties and responsibilities at CBP?

My CIO duties emanate from the Clinger-Cohen Act 1990 and a host of other laws. We are the enabler of how we can support CBP at the speed of mission. CBP is the second largest collection agency in the federal government. It collects approximately \$93.8 billion in duties, taxes, and other fees, which represents a 133 percent increase over a five-year period. We also processed about \$4 trillion in imports/exports.

I also work to deliver high-quality information technologies and services to CBP, other government agencies, the travelling public, and the international trade community—all in support of securing the border and facilitating trade and travel. To be proactive in responding to new threats, I manage CBP’s information and technology (I&T) operations and infrastructure. Our goal is to enable CBP mission readiness, including how officers and agents in the field perform critical work functions.

From mobile devices to systems that screen people and goods entering the country, to the data networks that keep information accessible and flowing—we manage all aspects of a fully functioning CBP I&T system. My team also manages the day-to-day operations of CBP computer and tactical communications facilities and systems. We provide technology support, ensure a secure method for information exchange, protect against cyberattacks, and collaborate with other countries.

My job, in a nutshell, is to make sure all the 180 critical systems are supported, while processing forty billion data exchanges every day while withstanding constant cyberattacks.

Would you outline your agency’s IT strategy?

Developing an IT strategy is foundational. It provides the organization with a vision of where it is going, coupled with a measurement framework to gauge progress. My strategy builds on the work of my predecessors, but it aligns with the core priorities of the agency and the department. CBP has five Enduring Mission Priorities: countering terrorism, combating transnational crime, securing the border, facilitating lawful trade and protecting revenue, and facilitating lawful travel. Our IT strategy works to support these priorities.

At CBP, our information technology strategy has six key focus areas. First—enhancing *our mission applications*. This includes AI (artificial intelligence), facial comparison technology, and our unified immigration portal. We’re processing 1.2 million passengers within two second adjudications at some of the 328 ports of entry. We’re also using our unified immigration portal and agile frameworks to improve efficiencies.

The second focus area is *mission infrastructure*. Migrating to the cloud, enhancing our network, and improving our performance management ensures a high degree of resilience in our operations. The third focus area is *enterprise IT governance*—establishing a chief data officer, developing our data strategy, and developing a technology roadmap and dashboards to enhance transparency with our mission partners.



Cybersecurity, the fourth focus area. It is a key component of the IT strategy with a specific emphasis on the implementation of zero trust architecture. It also helps to manage growth and retention of our cyber workforce. Our fifth focus area centers on *business operations* to ensure our employees growth and development. Finally, we focus on our *trusted partnerships* within CBP and DHS, across the U.S. government, and among our partners.

The mission depends on our ability to deliver resilient solutions. By continually innovating how we deliver and manage, we create the capability and capacity to deliver new ideas and technologies while also efficiently managing existing operations. We're saving time, money and realizing efficiencies through almost 140 robotic process automation projects and forty artificial intelligence and machine learning projects—which we're doing slowly and deliberately.

Industry best practices have led us to developing an enterprisewide OIT Playbook. This playbook not only meets the needs for programs to be able to tailor services to unique mission needs, but also standardizes the “plays” to improve the support received from OIT.



In 2021, CBP was the named winner for Public Sector Excellence by the Technology Business Management (TBM) Council for driving digital transformation with IT cost savings. Would you tell us more about this effort?

 It starts with our executive directors, including Patty Howell, our budget director, and Janet Pence, the chief of staff. Our TBM implementation has been an iterative process, enabling CBP to mature its IT operations and financial management processes. TBM has helped OIT run as a business by connecting IT spend to mission priorities. Structured data now supports the evaluation and

management of IT cost effectiveness, prioritization of unfunded requirements, and advanced data analytics and visualization. Taken together, this better enables our field operators to achieve their mission.

TBM helped OIT provide agency decision-makers with deeper visibility into IT requirements and costs across the full financial lifecycle for OIT's \$1.45 billion annual spend. It also helped us improve our ability to provide cost transparency to customers. TBM has enabled OIT to better understand and communicate the types of IT goods and services CBP is procuring. As OIT continued its TBM implementation, we were able to better understand how IT dollars impacted the mission. It also allowed us to uncover pain points that required more attention.

CBP OIT has focused on using TBM to drive operating efficiencies. We're improving collaboration with customers. We're spending more on cloud, cybersecurity, and network modernization to improve customer service. Importantly, we've also become better stewards of taxpayer funds.

How has COVID impacted your IT operations?

 At the beginning of the pandemic, we implemented a mobile solution so our workforce could work remotely. This helped to keep our operations moving. The Automated Commercial Environment (ACE) workforce seamlessly transitioned to a full mobile work model. We also developed the Electronic Advanced Passenger Information System (eAPIS), which contributed to a vital COVID-19 response.

The ACE workforce also supported a steady and legitimate import and export of COVID-19 vaccines, COVID-19 testing, Personal Protective Equipment (PPE), and medication to and from partner government agencies and countries. The team supported the ability to bring the supply chain directly to America's doorstep, lessening the burden on vital frontline workers. There are approximately 9.6 million travelers enrolled in Trusted Traveler Programs (TTP) with 7.2 million in Global Entry. Membership growth exceeded 200,000 in FY21.

Prior to COVID-19, Global Entry applicants with a conditionally approved application made in-person appointments for enrollment processing. During the pandemic, videoconferencing capability added an alternative to in-person interviews. It assisted with an increase of 350,000 conditionally approved applications and a growing backlog of applicants. Since the February 2021 implementation, the remote interview process has reduced

that number by more than 2,200, and there have been more than 5,643 successful interviews. Interviews were conducted across twenty-four countries and forty-eight states.

Can you demystify how you are putting the Technology Modernization Fund (TMF) to work for CBP?

 As the first project awarded TMF funding within DHS, ACE Collections helped shape the way for future DHS requests. The ACE Collections project was awarded through the TMF, authorized by the Modernizing Government Technology Act of 2017. It encompassed over two years of extensive and detailed collaboration.

During that period, CBP gained a partnership and maintains a favorable momentum with the TMF, Office of Management and Budget, and General Services Administration. The partnership provides a solid example for current and future DHS submissions attempting to modernize through the TMF. With the TMF funding, CBP was able to deploy the first TMF funded ACE Collections release, which was delivered on time and within budget.

The Southwest Border Technology Integration was DHS' first tri-bureau, cross-government (CBP, ICE and CIS) TMF award. The SWB technology integration project was approved under the relaxed repayment that TMF funded within the American Rescue Plan. We are currently awaiting the first increment of funds to ensure that we can continue to execute the tri-bureau enhanced immigration process lifecycle.

What are you doing around workforce development, recruitment, and retention?

 We've adopted a proactive approach to workforce development, recruitment, and talent retention by fostering an agile workforce. We also retain our professionals who've proven capable of executing the OIT mission and achieving our long-term goals.

On branding, CBP's frontline careers are well known within the conscience of the public; however, our cyber/technology mission has been historically underrepresented. To ensure OIT can recruit the next generation of technical talent, we first need to educate the public on who we are and what we do. We've increased our presence on popular social media sites and partnered with DHS to host DHS-wide public webinars discussing OIT careers. We're also working to spotlight career opportunities on CBP.gov.



Regarding recruitment, OIT has a complex mission. It spans a large geographical footprint and takes a targeted approach to recruitment—which ensures a capable and balanced workforce. We've increased engagement with colleges and universities to recruit entry-level IT and cyber professionals as well. We have also partnered with DHS SRDI (Strategic Recruitment, Diversity, and Inclusion) to reach historically underrepresented communities. Additionally, we participate in cyber and cyber-talent programs, where we obtain access to commercial job-boards and target resume mining for specific mission needs.

I also want to retain our workforce. We continue to spearhead the Cybersecurity Retention Incentive and to renew that program annually. Currently OIT sits at 107 employees signed up for the retention incentive. At the end of the day, it's all about the mission.

To learn more about the U.S. Customs and Border Protection, go to cbp.gov.



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