

# Capability Gaps (by Priority)

# Capability Gaps

ID	Priority	Capability Gap	Description
PS 01	H	Real-time, positive verification of an individual's identity utilizing multiple biometrics.	Multimodal biometrics technologies, protocols, standards, and methods for rapidly identifying and tracking known threats and other personnel. Used in conjunction with biographical data, these will provide more accurate and timely identity verification.
PS 03	H	Rapid (ultimately within minutes) DNA testing	Verify family relationships during interviews for disposition of benefits
PS 04	H	High-speed, high-fidelity ten-print capture device	Ergonomically correct, high-speed fingerprint collection for enrollment operations
PS 06	H	Mobile biometrics screening capabilities, to include hand-held, wireless, and secure devices	Biometrics screening technologies and other identity management tools for use at sites of terrorist incidents or natural disasters and at locations remote from US borders, for example, at sea.
PS 07	H	Remote, stand-off biometrics collection and measurement technologies	Real-time operation of stand-off biometrics technologies and processes for identifying individuals at a distance will enable personal screening processes to begin before individuals arrive at a checkpoint and result in rapid identity verification. This will speed up the movement of legitimate travelers or workers and reduce the number of secondary screening activities.
PS 08	H	Secure, non-contact electronic credentials; contactless readers or remote interrogation technologies for electronic credentials	Secure active or passive identification card capable of being read (interrogated) at long range. Also required are next-generation non-contact or remote interrogation technologies for collecting biographical and biometrics information from credentials, travel documents, and other identity materials will enable personal screening processes to begin before individuals arrive at a checkpoint and result in rapid identity verification. This will speed up the movement of legitimate travelers or workers and reduce the number of secondary screening activities.

# Capability Gaps

ID	Priority	Capability Gap	Description
PS 10	H	Commercial or corporate data sources for identity verification	Qualitative assessment of the utility of biographic commercial data in accurately determining identity of foreign and domestic persons or entities
PS 11	H	Non-invasive monitoring: Identifying and tracking unknown or potential threats from individuals at key checkpoints. Real-time detection of deception or hostile intent through an integrated system of human and machine methods.	Behavioral and physiological measurement technologies, protocols, and methods for detecting and tracking individuals exhibiting suspicious or deceptive behavior or hostile intentions among travelers or other individuals attempting to enter the U.S., gain access to critical infrastructure and key assets, or gain employment in the U.S.
PS 13	H	Maximizing screener performance at checkpoints through selection and training	Tools for selecting screeners; training programs; performance metrics for screening tasks; optimal performance parameters and workflow processes
PS 18	H	Maximizing screener performance at checkpoints through use of advanced imaging technologies	Imaging technologies, image processing tools, data integration, and automated system designs for improved passenger screening
PS 19	H	Systems for real-time, positive verification of identity documents and credentials	(1) Rapid, on-site validation of the documents or credentials of an individual attempting to gain access to critical infrastructure and key assets, participate in disaster response activities, and enter or gain employment in the U.S.(2) Close a current vulnerability by detecting and deterring individuals attempting to board aircraft with fraudulent documents by adding enhanced means to inspect documents, such as document scanners, black lights, and magnifying equipment (3) Development, installation and training on state of the art document examination technology (i.e., Video Spectral Comparator units)

# Capability Gaps

ID	Priority	Capability Gap	Description
PS 20	H	Interoperability with multiple, external identity adjudication support systems, including private and foreign databases	Electronic interfaces to data systems at other agencies will enable timely, complete evaluation of an individual's status and eligibility for benefits or access. This will support expanded background security check processes and should include, where appropriate, access to federal, state, and local systems as well as private and foreign databases.
PS 23	H	Systematic collection and analysis of information related to understanding terrorist group intent to engage in violence	Understanding and analysis of terrorist mobilization, intent, and behavior through the systematic application of social and behavioral science research and theory. Provide complex social and behavioral research data and theories to enhance our understanding of analytical, operational, and policy concerns related to terrorist activities.

# Capability Gaps

ID	Priority	Capability Gap	Description
PS 02	M	Improved biometrics matching algorithms and hardware	2 to 3 orders of magnitude enhancement of biometric search and verification capabilities to enable real-time services with large search population
PS 05	M	Rapid, contactless biometrics collection	Biometrics (fingerprint) capture devices not requiring surface contact; yet providing high-image quality, rapid capture (seconds, not minutes), and long distance fingerprint scanning (inches not centimeters)
PS 14	M	Maximizing screener performance at checkpoints through targeting	Develop additional targeting tools and systems for use at ports of entry and by the National Targeting Center
PS 15	M	Process simulation: Human factors engineered entry/exit facilities and processes that do not constrain flow	High-fidelity, high-speed process simulation capability to enable real-time user-interactive modeling of facilities, people or vehicle flows, and tasks
PS 17	M	Latest technology x-ray screening for passenger baggage from foreign arrivals (Land/Sea/Air)	High-resolution, back-scatter x-ray systems for organic detection, color & b/w monitors. These x-ray systems should have training programs built in to assist management in testing for proficiency and for mandatory referrals for examination. (Focus is agricultural products.)
PS 21	M	Rapid, global-scale dissemination of biometrics and biographical data	Identity management tools and secure communications infrastructure enabling real-time collection, checking, and dissemination of biometrics and biographical data
PS 22	M	Integrated data mining and high-speed communications network	Real-time integrated watch list, biographic, and biometric services accessible from any DHS screening point (through wire or wireless connection)

# Capability Gaps

ID	Priority	Capability Gap	Description
PS 09	L	Automated, electronic cross-checking of biometrics data providing a unique identifier accessible through a single query	Enhanced enterprise-scale biometrics collection, storage, and retrieval technologies to support the Unique Identity Initiative and enable the systematic retrieval of biometrics data for future use. These technologies should accommodate the collection of multiple biometric modalities, enable sharing of biometrics data among multiple DHS agencies as well as the DoS and DoJ, and establish biometrics and enumeration interoperability with other immigration agencies.
PS 16	L	Foreign language and dialect analysis services for interviewing foreign nationals	To verify the credibility of certain foreign nationals' claims to nationality or ethnic affiliation during eligibility interviews for significant benefits such as asylum

# Capability Gaps and Associated Projects



Homeland  
Security

# Capability Gaps (Project)

ID	Priority	Capability Gap	Project
PS-01	H	Real-time, positive verification of an individual's identity utilizing multiple biometrics.	• Biometrics
PS-02	M	Improved biometrics matching algorithms and hardware	
PS-03	H	Rapid (ultimately within minutes) DNA testing	
PS-04	H	High-speed, high-fidelity ten-print capture device	• Ten Print Capture
PS-05	M	Rapid, contactless biometrics collection	
PS-06	H	Mobile biometrics screening capabilities, to include hand-held, wireless, and secure devices	• Mobile Biometrics Systems
PS-07	H	Remote, stand-off biometrics collection and measurement technologies	• Remote Biometrics Capture
PS-08	H	Secure, non-contact electronic credentials; contactless readers or remote interrogation technologies for electronic credentials	• Credentialing
PS-09	L	Automated, electronic cross-checking of biometrics data providing a unique identifier accessible through a single query	
PS-10	H	Commercial or corporate data sources for identity verification	• Commercial Data Sources
PS-11	H	Non-invasive monitoring: Identifying and tracking unknown or potential threats from individuals at key checkpoints. Real-time detection of deception or hostile intent through an integrated system of human and machine methods.	<ul style="list-style-type: none"> <li>• Automated Intent Detection</li> <li>• Intent Training Simulation</li> <li>• Hostile Intent Detection -SPOT</li> </ul>



# Capability Gaps (Project)

ID	Priority	Capability Gap	Project
PS-13	H	Maximizing screener performance at checkpoints through selection and training	
PS-14	M	Maximizing screener performance at checkpoints through targeting	
PS-15	M	Process simulation: Human factors engineered entry/exit facilities and processes that do not constrain flow	
PS-16	L	Foreign language and dialect analysis services for interviewing foreign nationals	
PS-17	M	Latest technology x-ray screening for passenger baggage from foreign arrivals (Land/Sea/Air)	
PS-18	H	Maximizing screener performance at checkpoints through use of advanced imaging technologies	
PS-19	H	Systems for real-time, positive verification of identity documents and credentials	
PS-20	H	Interoperability with multiple, external identity adjudication support systems, including private and foreign databases	
PS-21	M	Rapid, global-scale dissemination of biometrics and biographical data	
PS-22	M	Integrated data mining and high-speed communications network	
PS-23	H	Systematic collection and analysis of information related to understanding terrorist group intent to engage in violence	<ul style="list-style-type: none"> <li>• Violent Intent Modeling and Simulation</li> </ul>



# Homeland Security



Homeland  
Security