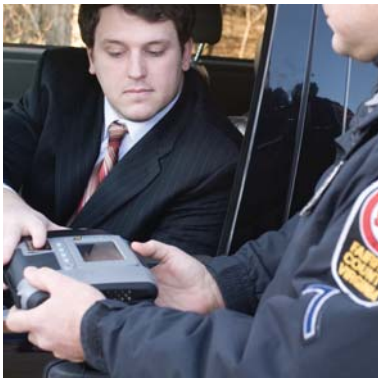




Networked Identification: US National Capital Region

Printrak Arms the United States National Capital Region with the Latest Interoperable Biometric Identification Capabilities



A Regional Solution

The United States National Capital Region (NCR) is served by one of the most sophisticated networks of interoperable automated fingerprint identification systems (AFIS). Connected across agencies, jurisdictions, and states, this shared regional AFIS allows for identifications even when the arrestee may not be in the local or state database. This solution allows each agency to communicate and interoperate by searching each other's biometric database, resulting in an increase in identifications and solved crimes

The NCR consists of the regional AFIS systems of Northern Virginia (NOVARIS), Montgomery and Prince George's Counties (RAFIS) and Washington DC (DC-AFIS). Recently, all agencies with participating AFIS systems purchased a new service oriented architected (SOA) system in which Printrak provided officers with expanded functionality and improved system performance. The upgraded systems supplied participating agencies with palmprint capture and match, enhanced fingerprint analysis, facial recognition, expanded mugshot capabilities, increased processing speed, and improved searching algorithms. In addition, the agencies are equipping officers with powerful verification tools in the field with Printrak Mobile AFIS.

During a recent panel discussion regarding "The Future of Mobile Biometrics," Lieutenant Vince Byrd of Fairfax County Police Department shared his enthusiasm for the new National Capital Region AFIS: "We have the new state-of-the-art multi-modal AFIS to enter, archive, and search tenprints, latents, and new palmprints and the new state-of-the-art mugshot system to enter and search mugshots. Also, Printrak is providing us with the technology that allows us to meet each state's criteria for line-ups. This enables us to follow the protocol that meets their requirements, while allowing all of our systems to be completely interoperable with one another. Everyone who uses the system really loves it."

The agencies within the National Capital Region obtained a multi-million dollar Urban Area Security Grant that allowed the region to purchase a new multi-modal, service oriented architected (SOA) system that provides multi-jurisdictional interoperability.

Since the consolidation of the regional AFIS systems, NOVARIS, MD-RAFIS, and DC-AFIS have worked to improve interoperability within the region to identify suspects and persons across jurisdictional boundaries. These tools have been extremely important in the fight against crime, gang violence, and terrorism.



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Mobile Identification with Printrak Mobile AFIS

A portion of the upgrade for U.S. National Capital Region system includes the addition of Printrak’s Mobile AFIS solution. This hand-held device facilitates the identification of individuals in the field, saving the valuable time and resources required to transport each suspect to police stations.

Printrak Mobile AFIS is a powerful biometrics acquisition tool that provides remote and timely access to fingerprints, facial images, and critical information such as criminal history or immigration status. This device is used today by law enforcement officials, border guards, and other agencies throughout the world to verify the identity of individuals in the field. Printrak Mobile AFIS quickly and accurately captures both fingerprints and facial images and matches them against either a backend database or a list stored locally on the device. The use of this device not only identifies individuals, but deters others from attempting to conceal their true identity.

Based upon over 30 years of AFIS leadership, Printrak Mobile AFIS provides officers with a seamless end-to-end secure solution to capture, store, transmit, and verify while operating in a remote environment. Mobile AFIS works on commercial-off-the-shelf (COTS) hardware and can be configured to a wide range of communications standards, providing agencies with the flexibility to select the device that best fits their needs.

Fairfax County Police Department in Virginia, as part of the National Capital Region upgrade, has deployed Mobile AFIS to their officers and the real-time responses they are able to get, both on their own system as well as the Washington DC Metropolitan Police system, are remarkable. “Currently we’re getting wireless hits within 45 seconds. We’re also hitting off the DC database and that’s coming back within 90 seconds,” said Lieutenant Byrd.

Printrak Mobile AFIS utilizes advanced AFIS algorithms to provide the accuracy and interoperability needed to deliver trusted results at the right time, every time.

Mobile AFIS is available in multiple form factors and can be configured to a wide range of wireless protocols.



Identification in the Palm of Your Hand

Printrak’s Mobile AFIS solution uses a portable handheld device to search an agency’s backend AFIS or the database local to the device to identify individuals in the field.

Mugshots and Facial Recognition Technology: Powerful Tools in Solving Crimes

In addition to Mobile AFIS, the National Capital Region AFIS (NCR-AFIS) was expanded to include mugshots and facial recognition. This multi-biometric enabled AFIS leads to more reliable results, reducing the likelihood of a poor sample compromising the integrity of the data.

The mugshot feature of the NCR-AFIS has been especially helpful for officers. Investigative search and line-up features include a large search criteria selection, multiple pick list selection, and real-time feedback on database match counts on selection criteria. Operators are able to drag and drop from their search to a lineup, copy and paste with the clipboard, share and edit images, and restore photos.

The facial recognition feature facilitates matching one face against a stored record for verification (1-to-1 matching), as well as searching for a known face against a large database for identification (1-to-many matching). The system evaluates the quality of a facial image for computerized facial recognition purposes and, if needed, prompts for an improved image. It is capable of detecting single faces out of multi-person groupings in a field of view, even with complex backgrounds, and can be used to generate line-ups.

Lieutenant Byrd shared an example of how these new capacities have assisted his agency with solving crimes: "When Printrak came out to do our training for facial recognition, we went into the state sex offender registry and pulled out a picture. We put the JPEG picture into our system and we got a hit. It was automatic. We did not know the guy was in our jails, but guess what, it popped up." The addition of mugshots and facial recognition technology expands the ability to close cases that may not have otherwise been solved.

A Force Multiplier: The Use of Facial Recognition and Mobile AFIS

Armed with Printrak Mobile AFIS and facial recognition technology in the National Capital Region AFIS, officers have been provided the latest in mobile biometrics capabilities. The Mobile AFIS devices used by participating agencies include a built-in digital camera that capture, transmit, and search facial images captured in the field. Now, in addition to performing remote fingerprint searches for identifying individuals, officers can conduct remote facial image searches, providing multiple search options for identifying suspects. This advanced biometric tool is especially useful in situations where a person may not have their fingerprints on file in the database, but does have mugshots captured from previous incidents.

Unlike fingerprints, facial images provide a candidate list rather than a definitive hit (i.e. match). When performing a facial image search, a candidate list of a configurable number of images is returned. Though not a hit, this can provide enough reasonable suspicion to bring a suspect back to a station for further processing.

The Fairfax County Police Department has been thorough with their testing and implementation of this state-of-the-art feature. "We've conducted several tests in a number of environments with different types of lighting. We're getting good returns on those items. Currently what we're doing is capturing two fingers, receiving a mugshot and demographics results. When we do the facial recognition, it comes back with eight mugshots. Our AFIS upgrade to include mugshots and facial recognition technology, along with Mobile AFIS, has truly made a difference. Furthermore, the ability to search other agencies with an interoperable network has and will continue to play a large role in keeping our streets safe," explained Lieutenant Byrd.



The Power of Trusted Mugshot and Facial Recognition Technology

The mugshot feature of the new NCR-AFIS solution provides officers with an additional powerful tool to identify individuals. Mugshot technology allows operators to electronically capture NIST compliant images of facial features in approximately 2-5 seconds, resulting in standards compliant, consistent images.

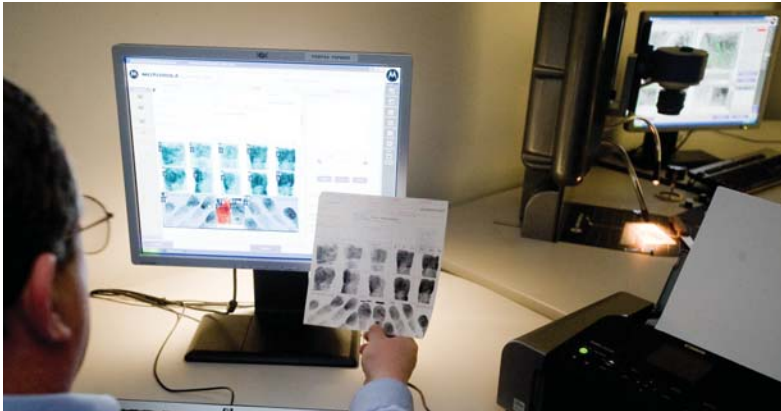
Printrak's facial recognition technology allows operators to capture and deliver images to support a variety of facial image format standards such as ANSI/INCITS 385, ISO/IEC 19794-5 and provide compliance with other facial profiles. The technology also offers options to detect and identify non-compliant attributes.

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Setting an Example

The United States National Capital Region's Automated Fingerprint Identification System has set an example for similar regional groups of agencies throughout the world. By combining the resources of participating agencies, the National Capital Region has been able to implement a powerful system with advanced biometric capabilities. They are able to enjoy the benefits of interoperability between agencies and the confidence of trusted results.



Participating agencies include Montgomery County Police Department, Prince George's County Police Department, Washington DC Metropolitan Police Department, US Capital Police, US Park Police, Fairfax County Police Department, Fairfax County Sheriffs Office, Fairfax City Police, Arlington County Sheriffs Office, Arlington Police Department, Alexandria City Police, Prince William County Sheriffs Office, Hendon Police Department, Vienna Police Department, Falls Church City Police, Loudoun County Police Department, Maryland regional automated fingerprint identification system, and the United States Secret Service.



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BIO-NCR-CS-1