

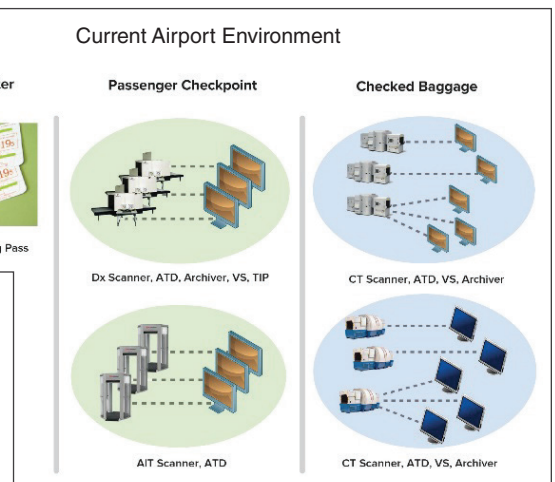
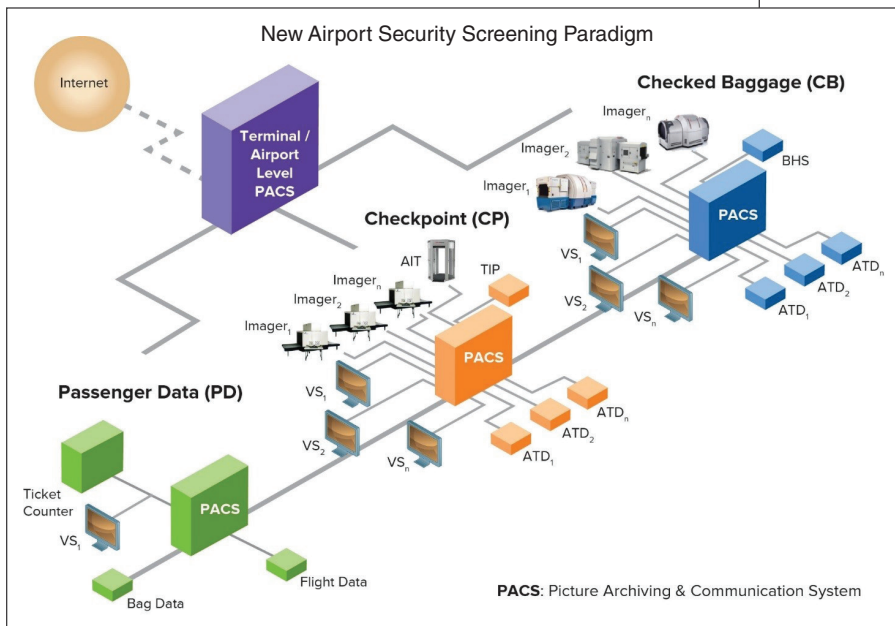
DIGITAL IMAGING AND COMMUNICATIONS IN SECURITY (DICOS)



DICOS is available now for implementation and Battelle is ready to help you implement it.

A new paradigm that is an open operating environment, allowing systems and system users to interconnect and interoperate, is now available based on the DICOS standard. DICOS is an extensible, interoperable data standard that enables the integration of disparate security screening imaging technologies, images and related metadata. DICOS allows images from any security X-ray imaging system and data associated with those images to be transmitted on a common network, stored in a DICOS-compliant storage medium, and viewed on any DICOS-compliant workstation or other DICOS-compliant device. Third party providers, as well as current suppliers, can innovate with security products with greater flexibility and speed, and security operators can likewise achieve greater freedom to innovate with their security countermeasures.

Battelle developed DICOS version 1.0, which was adopted by the Association of Electrical Equipment and Medical Imaging Manufacturers (NEMA), the same association that maintains the international Digital Imaging and Communications in Medicine (DICOM) standard. NEMA is now the steward of DICOS and it will continue to evolve DICOS based on input and guidance from industry suppliers and users. Version v02A has just been completed, and work on version 3.0 will soon begin by the NEMA DICOS Committee.



DICOS Value Proposition

Feature/Capability	Value Proposition
Open architecture, interoperability	Interchangeability of a true plug-and-play environment enables numerous benefits: <ul style="list-style-type: none"> • Reduced prices (system and software) resulting from greater competition • Accelerated development cycles resulting from more players/resources • Innovation through non-traditional participants (e.g., algorithm developers)
DICOS – open architecture standard	DICOS is derived from DICOM: <ul style="list-style-type: none"> • Proven based on DICOM's worldwide experience and use over many decades Published and non-proprietary, allowing users to control the standard through a standards development organization (SDO) • Strengthened through industry collaboration and NEMA DICOS standards committee • Adaptable over time as needs arise and new technologies emerge
Networked screening systems	Networking interconnects all generators (screening equipment and security data) and users of security information for multiple benefits: <ul style="list-style-type: none"> • Images and other metadata can be viewed at any workstation; all system elements, including PACS, are integrated to maximize interchange and use of screening related information resulting in prompt and appropriate system response • Centralized equipment performance data can be analyzed over time to identify systems degradation or potential operational issues
Risk-based security	Risk-based security is greatly enabled/enhanced by DICOS permitting new concepts of operation (CONOPS): <ul style="list-style-type: none"> • Networking allows remote/dynamic data entry (e.g., hand-held tablets) to improve situational understanding and on-the-spot response • Real time access to all data improves risk analysis capability and responsiveness to changing security environment • Open security architecture allows enhanced security response (e.g., different algorithms linked to different security risks)
Common image and data standard	DICOS record consolidates all relevant passenger security data to improve security enterprise: <ul style="list-style-type: none"> • Centralizes PAX images (baggage, avatars) and associated metadata; other data (e.g., biometrics) can be added • NEMA IIC 1 v02A standard provides 232 pages of details of this image/data standard • PAX data can be complemented with third party input (e.g., screener response, behavioral officer input, etc.) • Data can be stored and retrieved as required from PACS for analysis, investigations, and response
Operational benefits	<ul style="list-style-type: none"> • “Performance over time” analysis of equipment optimizes maintenance • Real-time monitoring/analysis of screening process increases efficiency • Real-time monitoring of screeners improves performance • Screening data and metrics collected online improves CONOPS

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800.201.2011 | solutions@battelle.org | www.battelle.org

