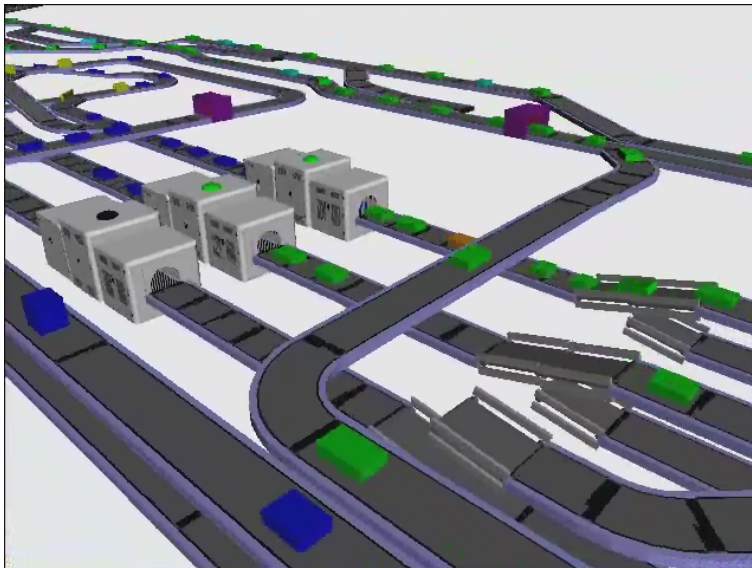


Rapiscan Systems
2805 Columbia St.
Torrance, CA 90503
USA
Telephone +1 310-978-1457
Facsimile +1 310-675-6647
www.rapiscansystems.com



Realizing the Best ROI in the Hold Baggage Screening Area with High Speed EDS

A White Paper from Rapiscan Systems, Inc.
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New Standards for Checked Baggage Screening

New standards for hold baggage screening with mandates make CT based technology the only option most airports will be able to consider for their checked baggage screening operation. The European Union mandates beginning September 2012 state that all new hold baggage screening systems must be Standard 3 CT based technology and by 2018 all systems must be Standard 3 CT based systems. The US TSA mandates that all hold baggage screening be conducted using TSA Certified CT based equipment. These new standards present challenges when planning for a new or upgrading an existing hold baggage screening system.

What we know

- New standards in both the EU and the US make CT based EDS systems mandatory.
- With increased regulation Hold Baggage Screening areas must be re-evaluated to comply.
- Investment in CT based EDS systems is significant, therefore lower operating costs are highly important.

In November 2001, the US Congress enacted a law to require that 100% of checked baggage be inspected by an explosives detection system (EDS) using Computed Tomography (CT) technology. At the time, CT worked very slow, was large and heavy and was unreliable with high false alarm rates and high maintenance costs.¹ A compromise was made for the time being, but these factors spurred industry to continue developing EDS on the CT platform to meet future requirements.

Until now, CT science has remained unchanged however; with the introduction of Rapiscan Real Time Tomography (RTT) industry has been able to address some key issues necessary to keep the

technology viable for EDS in the airport environment.

Planning for Compliance and Growth

When planning for a new or upgraded hold baggage screening area three factors contribute to a high return on investment; speed, space and operating cost.

Speed: An EDS machine should be able to operate at the airport's current BHS speed. Eliminating the need for new BHS purchasing contributes to a reduced CAPEX and lowers system integration costs. In addition, an EDS should be suited for growth, and able to operate at the highest possible speed to accommodate peak levels without performance compromises. The RTT is configurable for any BHS speed and ready for high volume processing now and in the future.

¹ Policy Study 297, Rethinking Checked-Baggage Screening, Viggo Butler and Robert W. Poole, Jr., July 2002

Space: When considering an EDS, size matters. The footprint of a legacy in-line EDS can be up to 901 cubic feet. With space in the airport at a premium a small footprint high speed EDS allows for maximum use of the space and minimal component purchasing. Also, the RTT high speed EDS has the ability to operate for the maximum capacity with fewer machines. Saving space for other airport operations opens the door for more revenue generation.

Operating Cost: For the airport, keeping operating costs at a minimum for hold baggage operations is a priority. A Hold Baggage area should incorporate high resolution, high speed EDS machines that have a low false alarm rate and therefore keep pressure on personnel in Level 2 and in the hold baggage screening area to a minimum. A highly reliable machine with diagnostics for managing maintenance easily helps to have maximum uptime. The total operating cost needs reliability in performance and construction to consistently provide lower operating costs.

Evaluating EDS for Return on Investment

A total hold baggage screening solution is much more than just the EDS. However, when the EDS operates at maximum capacity with less machines savings is increased by the need for less BHS components, less personnel and less maintenance.

What Should Be Considered When Evaluating EDS Systems?

- **Throughput:** EDS systems should accommodate your BHS highest volume at maximum speed. With the RTT, configurable speeds that process up to 1800 bags per hour translate into savings for hold baggage screening.
- **Image Quality:** The better the image quality of an EDS system makes for a better automatic detection platform and low false alarm rates. With Real Time Tomography image quality surpasses traditional CT.
- **Diagnostic Tools and Maintenance Schedule:** EDS systems should have high reliability and rapid maintainability. The diagnostic tools on the RTT allows for exact evaluation and quick scheduled maintenance.
- **Total Operational Costs:** Design, operational considerations and product reliability contribute to overall operational costs. With a revolutionary design, the RTT generates a higher ROI when compared to traditional CT.

About Rapiscan Systems

Rapiscan Systems, a division of OSI Systems, Inc. is a leading supplier of high quality security inspection solutions utilizing X-ray and gamma-ray imaging, and advanced threat identification techniques such as neutron and diffraction analysis. The company's products are sold into four market segments: Baggage and Parcel Inspection, Cargo and Vehicle Inspection, Hold Baggage Screening, and People Screening. The Rapiscan Systems product line is supported by a global support service network. For more information, please visit www.rapiscansystems.com.

“Rapiscan Systems has demonstrated its technological innovation, vision and market leadership, which is why we named the company the 2008 North American Homeland Security Inspection and Screening Company of the Year,” said **David Fishing, Frost & Sullivan homeland security industry analyst**. “It is at the top of its class in its capacity to develop and deploy solutions that provide intelligence and enhance security at airports, seaports and border crossings around the world.”

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