



**SAGT Expands its Communications Network with WAVE®**

**New Communications Infrastructure Gives Port Unprecedented Worker Mobility and Interoperability**

South Asia Gateway Terminals (SAGT), a sea container port situated in the Port of Colombo, Sri Lanka, is a strategic shipping-and-receiving hub featuring some of the most advanced terminal-handling equipment and tracking technology in the world. Having experienced rapid growth in recent years, the port’s communications capabilities were struggling to keep up with demand. As part of a sweeping technology upgrade, Twisted Pair and SAGT partnered to re-engineer the port’s communications infrastructure, focusing primarily on expanding critical two-way communications between mobile workers and introducing smartphones to augment and replace radio handsets.

**THE CHALLENGE**

In 2010, SAGT employees handled more than 165,000 containers every month, highlighting the size and complexity of the port’s operations. Mobile workers directly involved with the handling of containers depended on two-way radios for all of their critical communications. Employee ability to quickly communicate impacted every aspect of container movements, including picking, placing, stacking, organizing and storing individual containers. For the specific purpose of tracking container movements around the port, it was common for workers to carry and use separate data devices.

SAGT’s communications network was comprised of approximately 150 radio handsets; crane operators and truck drivers had no access to data beyond this two-way voice communication. All container movements were controlled from a central position in the container terminal. This meant that for a crane operator or truck driver to respond to shipping, receiving or other logistical needs, the request had to be routed through a colleague at a terminal station in the main facility. This person could then disseminate verbal requests to crane operators and truck drivers responsible for moving the cargo.

SAGT knew that to meet international standards and maintain its reputation as a premier shipping-and-receiving operation, it must upgrade its communications capability so that real-time voice and data could be delivered to mobile workers using a single device. The company also knew that it couldn’t tolerate the grand-scale interruptions often generated from major hardware system upgrades. Any new system would have to integrate seamlessly with the existing radio network, while providing new and enhanced capabilities where they were most needed.

**THE RESULTS**

**Expanded Communications Network**

SAGT replaced aging and obsolete radios with smartphones, improving port-wide efficiency while saving the company hundreds of thousands of dollars.

**Voice and Data on a Single Device**

By leveraging smartphones in place of two-way radios, SAGT eliminated work-flow latency by giving staff access to push-to-talk and data from a single device.

**Updated Dispatch Capability**

A new software application replaced SAGT’s outdated dispatch control system, providing a closed-loop, IP-based voice and data network.

**Enhanced Emergency Communications Capabilities**

SAGT implemented a site-wide emergency channel as a part of the communications network, improving work-place safety and company image.

*“With WAVE, we’re doing more with less. By leveraging smartphones in place of two-way radios, we can eliminate work-flow latency by giving staff access to push-to-talk and data from one device, allowing them to make decisions and respond in real-time.”*

Upul Jinadasa  
IT Director, SAGT



WAVE Mobile Communicator Interface

## THE SOLUTION

SAGT chose to deploy WAVE® from Twisted Pair. WAVE allowed SAGT to leverage and unify much of its existing communications investments. Most compelling for SAGT, though, was the WAVE Mobile Communicator (WMC) technology. SAGT was able to expand its radio network by deploying economical smartphones running WMC with its push-to-talk capabilities rather than adding or replacing costly digital radios. SAGT was able to retire a majority of its aging and obsolete radios and replace them with cost-effective smartphones running WMC, saving the company hundreds of thousands of dollars in radio system upgrades, maintenance and frequency licensing fees.

The deployment of WAVE's IP-based infrastructure has improved operating efficiencies because crane operators and truck drivers have access to voice communications and to screen-based data provided by an application that details container movement, both delivered via a single device. In addition, as part of this deployment, the company also implemented ten WAVE Desktop Communicators. Deploying Desktop Communicators allowed SAGT to replace its outdated dispatch control system with a highly scalable, cost-effective distributed command and control system and provided SAGT with a closed-loop, IP-based highly secure voice and data network.

"Every function in our operation is critically tied to our communications strategy and, for years, we've struggled with interoperability and the ability to grow our radio network cost-effectively," said Upul Jinadasa, IT Director for SAGT. "With WAVE, we're doing more with less. By leveraging smartphones in place of two-way radios, we can eliminate work-flow latency by giving staff access to push-to-talk and data from one device, allowing them to make decisions and respond in real-time."

Twisted Pair's WAVE software also allowed for the implementation of a site-wide emergency channel as part of the communications network. Prior to this, given the communications structure, communications latency made real-time crisis management and emergency response difficult. The new streamlined architecture gave SAGT a solid foundation for a safe work environment.

"SAGT has a strong reputation for workplace safety; protecting this image and, more importantly, the employees that are the foundation of our business, is critical to our long-term growth," adds Jinadasa. "Our staff's ability to act and respond is central to their safety and WAVE has given us a straightforward line of communication for managing any emergency scenario."

As a result of deploying WAVE software, SAGT employees have streamlined their communications for better shipping, receiving and operational performance at a fraction of the cost of upgrading the company's radio hardware system. In fact, the company's strategy to replace digital radio technologies with WAVE Mobile Communicators will serve as part of its long-term growth strategy, allowing SAGT to continue to grow its push-to-talk radio network without ever purchasing another costly two-way radio.

## WAVE SOLUTIONS FEATURES

### Uniquely Capable

WAVE is the first and only complete suite of mobile workforce communication applications built on a critical communications interoperability platform that can be installed on-premise and in the cloud to drive new levels of efficiency and customer satisfaction. WAVE is easy to use, straightforward to integrate and exceedingly mobile.

### State-of-the-Art Technology

Forget the old world where critical communications were just voice on single-purpose handsets. Forget the days of complex and proprietary systems and heavy-duty, expensive hardware. WAVE's unique software architecture sets it apart from yesterday's hardware-based proprietary alternatives.

### Secure to the Core

WAVE solutions provide the security and ruggedness required for sensitive voice and data communications, with full redundancy and fail-safe capabilities. Customers can build and operate secure, highly scalable solutions that provide users the secure access to people, information and systems that are critical to their activities.

### Proven and Trusted

WAVE has been extensively deployed and battle-tested by military customers worldwide, cited as a game-changing technology by public safety customers, and selected for business-critical operations by commercial organizations in industries such as transportation, utilities and energy.

## Let's Talk

We work closely with the public sector, the defense industry, and commercial entities around the world. How can we help you?

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## ABOUT TWISTED PAIR

Twisted Pair is the recognized leader in critical communications. Our WAVE software empowers your mobile workforce with critical communication applications for secure, real-time collaboration anywhere on any device. Built upon a battle-tested communications interoperability platform, WAVE delivers voice, video, location, presence and other forms of data deployed as an enterprise product or cloud-based service throughout commercial, public sector and defense organizations. WAVE has been proven in thousands of the most complex deployments around the world to help integrate and control a truly unified communications system so that office-based and mobile workers can simply talk, make decisions and act.

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