Samsung in Logistics and Transportation
Transforming the way logistics and transportation move
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Improve the transport of goods and passengers with flexible, mobile efficiency

Industry trends

The impact of growth, customer demands and rising overhead

Population explosion and globalization
Freight and transportation providers are expected to experience a long-term increase in cargo and passenger traffic due to globalization, population growth and urbanization. This rapid growth will mainly be seen in developing economies, such as the Asia-Pacific region.

Demanding customers and emerging technology
Buyers of logistics services are becoming more demanding in terms of visibility and prices, with mobile devices fueling the need for same-day service and operational flexibility. Plus, today’s empowered travelers access multiple channels, including external sales channels, to find travel information, special offers and competitive pricing.

Emerging technology now enables the analysis of real-time information, enabling logistics and transportation providers to efficiently run operations to meet the needs of manufacturers and travelers.

Global economic downturn and rising costs
The financial crisis and resulting global economic impact have led to plummeting demand for cargo shipments. In addition, more pressure has been placed on travelers’ wallets, resulting in a sharp decline in passenger travel. To make matters worse, fuel prices have steadily increased over the years and now represent nearly a third of total operation costs. These factors have put added pressure on logistics and transportation providers struggling to keep operating costs down while remaining price-competitive.

Customer needs

Implement smart technology to meet customer requirements and contain costs

Higher customer expectations
Travel and transportation providers must adopt digital, consumer-centric technologies to deliver a more satisfying experience for today’s tech-savvy customers. More travelers want to book their own reservations, and they expect up-to-the-minute travel information. Manufacturers and distributors of goods expect industry-specific mobile solutions for faster delivery and real-time, user-friendly mobile tracking.

Operational cost management
Logistics and travel providers must find more efficient ways to collect and analyze historic and real-time data to gain deeper insights into costs, asset utilization and future freight delivery. Consumer transportation needs to attract customers, increase revenues and reduce operational costs. Their entire facilities and infrastructures must be transformed with an end-to-end solution that meets the demands of customers and ensures efficient operations on the move.

Samsung capabilities
Support logistics and travel with high visibility, efficient operations and personalized service
To keep pace with today’s mobile environment, logistics and transportation providers must maximize their assets with efficient operations while catering to customer needs. Samsung smart logistics and transportation offerings provide:

- **Enhanced logistics visibility.** Provide quick and easy real-time information and analysis of data from digital and interactive devices for an enhanced customer experience and efficient delivery and transport processes.

- **Increased operational efficiency.** Optimize asset management and ensure efficient use of resources with increased mobility and automated solutions.

- **Personalized, mobile customer experience.** Deliver up-to-the-minute travel information and provide convenient, self-service options for a more personalized passenger experience.
Seamlessly support customers, staff and operations in all aspects of logistics and transportation

### Smart logistics and transportation environment

#### Area 1
**Road transportation**
Inform passengers with real-time information on interactive displays and delight them with onboard entertainment. Provide couriers quick, easy access to delivery and tracking information on mobile devices equipped with barcode scanners and QR Code® readers.

#### Area 2
**Rail transportation**
Provide maintenance technicians with e-manuals and worksheets on mobile devices. Enable rail conductors to validate tickets and process payments on mobile devices and entertain passengers onboard with movies and shopping using tablets.

#### Area 3
**Air transportation**
Give maintenance crew tablets to access service manuals. Equip flight attendants and pilots with tablets to access manuals, maps and flight manifest and process mobile payments. Provide passengers with rich multimedia entertainment on user-friendly tablets.

#### Area 4
**Transportation infrastructure**
Deliver real-time transportation information on digital signage and interactive self-service kiosks for check-ins and more, while providing a well-lit and air conditioned atmosphere and wireless network. Equip staff with a mobile security solution, interactive whiteboard, secure mobile printing and cloud scanning and an automated document workflow solution.

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**Table: Description and Key offerings**

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<th>Area 1: Road transportation</th>
<th><strong>Description</strong></th>
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<th><strong>Description</strong></th>
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<th>Area 4: Transportation infrastructure</th>
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<td>SMART Signage</td>
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Track deliveries, inventory and fleets from virtually anywhere with mobile devices and solutions

**Area 1: Road transportation scenario**

**Couriers**
- **Check delivery route.** As the courier gets ready to deliver a package, he or she maps the most direct route on a tablet.
- **Collect delivery fees.** When the courier arrives at destination, he or she collects the Cash On Delivery (COD) charges from the recipient using the handheld tablet equipped with mobile payment solution.
- **Confirm delivery.** Before handing the package to the recipient, the courier uses the tablet to scan the barcode on the package to confirm delivery.

**Logistics and distribution managers**
- **Control inventory.** While walking through the warehouse, the distribution manager checks the available inventory using the barcode scanning feature on a tablet.

**Samsung offerings for road transportation**

**Solutions for couriers**

**Mobile and wearable devices**
Couriers can use navigation tablets to avoid traffic jams and provide delivery confirmations, improving efficiency and reducing fuel costs. Plus, couriers can access the Service Guidebook through a convenient mobile app.

The rugged, versatile Samsung GALAXY Tab 4 Active™ tablets boast a slim, lightweight design with a non-slip coating. Plus, they are resistant to water, dust and shock to keep couriers productive from anywhere.

Couriers can efficiently log and track deliveries, plus provide proof-of-delivery confirmation with photos and digital signatures to speed the process using Bluetooth® technology.

A detachable battery ensures 8-10 hours of continuous operation, and Pogo pin charging enables quick, mobile recharging. When couriers are carrying packages or performing other tasks that require two hands, Samsung GALAXY Gear wearable devices provide hands-free operation.

**Mobile point-of-sale solution**
Couriers can perform transactions from a tablet for simple and quick payment processing using the mobile point-of-sale (mPOS) solution on Samsung GALAXY® tablets. This streamlined payment method also reduces hardware and equipment costs. The mPOS terminal includes a barcode scanner for an improved, personalized purchasing experience.

**Barcode scanning solution**
By simply attaching a barcode reading device to their smartphones, couriers can send scanned information to their mobile devices. Or, using a small barcode reader with Bluetooth technology, they can do it hands free, boosting productivity. Courier smartphones can also be equipped with a QR Code reader. These convenient barcode readers are invaluable tools for keying in package information and providing real-time delivery status quickly and efficiently.

**Solutions for logistics and distribution managers**

**Mobile devices**
Using mobile devices equipped with barcode scanning capabilities, logistics and distribution managers can coordinate the shipment of goods from warehouses using their Samsung GALAXY Tab 4 Active devices. This portable, lightweight yet rugged tablet can be safely used around busy and hazardous loading docks. If a tablet happens to drop, anti-shock protection ensures that it will take the fall and continue to operate superbly.
Maintain a smoothly run operation with quick access to information at the staff’s fingertips

Area 2: Rail transportation scenario

Maintenance technicians

- **Access electronic manual.** As the maintenance technician begins adjusting the brakes on the freight car, the flips through the e-manual on a tablet PC.

- **Check maintenance schedule.** The maintenance technician uses a tablet to conveniently check off maintenance procedures on e-worksheet, using a finger to write on the touchscreen.

Rail conductors

- **Validate passenger ticketing.** As the conductor walks through the cars, he or she validates passenger tickets using a mobile device.

- **Collect rail fare.** The conductor conveniently collects passenger fares onboard using a smartphone equipped with a mobile payment solution.

Passengers

- **Enjoy onboard entertainment.** A passenger passes the time watching engrossing entertainment on the tablet mounted to the railway seat.

- **Shop onboard.** Another passenger browses through an e-catalog on a tablet and purchases merchandise right from the same tablet that is equipped with a mobile payment solution.

Solutions for rail conductors

**Mobile devices**

Rail conductors can use paperless tablets or smartphones to electronically validate passenger tickets for the convenience of conductors and passengers. The devices can also be used to improve time management for passenger transport, obtain urgent information and deploy staff and resources from the field swiftly and efficiently. Slim Samsung GALAXY mobile devices are light to carry and the intuitive user interface (UI) simplifies every process.

**mPOS solution**

Rail conductors can use mobile devices to facilitate passenger ticketing and merchandise purchasing. Samsung GALAXY tablets and smartphones, equipped with the mPOS solution, transform into mobile cash registers for simplifying passenger transactions while enhancing the buying experience.

Solutions for passengers

**Mobile devices**

Railways can entertain onboard passengers with multimedia entertainment and e-catalogs on tablets conveniently mounted to the back of the passenger seats. Samsung GALAXY tablets are ideal for these applications, offering high-definition (HD) viewing and a rich user experience (UX) when reading through e-periodicals.
Simplify crew scheduling and maintenance while entertaining passengers using versatile tablets

Area 3: Air transportation scenario

**Maintenance technicians**

- **Access electronic manual.** As the maintenance technician begins to measure the torque of the propeller, he or she refers to the e-manual on a tablet PC for the specifications.

- **Conduct maintenance checks.** The maintenance technician accesses e-worksheet on his tablet to conveniently check off maintenance procedures with a swipe of his finger.

**Passengers**

- **Browse e-catalog.** To pass the time in flight, a passenger browses through an e-catalog on the tablet mounted to the seat in front of her.

**Pilots**

- **Pre-flight checklist.** A pilot goes over the pre-flight checklist to ensure all safety regulations are met.

- **Access aeronautical chart.** As the pilot prepares for takeoff, he or she checks the aeronautical chart on a tablet to determine the best route to the destination.

**Flight attendants**

- **Check flight schedule.** A flight attendant reviews the flight schedule on a tablet to determine the estimated time of departure and then checks the most up-to-date crew schedule to ensure all personnel are onboard.

**Samsung offerings for air transportation**

**Solutions for maintenance technicians**

**Tablets**

Maintenance technicians can easily access electronic aircraft manuals on tablets without having to comb through unwieldy printed manuals. Technicians can keep track of maintenance schedules and check off procedures on e-worksheets using the touchscreen handwriting feature.

Samsung GALAXY Tab 4 Active tablets are light, ruggedly designed devices that boast a non-slip exterior for secure handling and are water, dust and shock resistant. These benefits make them ideal for use in maintenance areas, and the tablet can even be used on the tarmac in inclement weather conditions.

**Solutions for pilots**

**Tablets**

In the cabin, pilots can swiftly access flight operation manuals, schedules, terminal charts and aviation maps, with a simple touchscreen tap. Now they save time, effort and resources by no longer having to grope around looking for various manuals and paperwork to find what they need. Pilots can appreciate a paperless, clean, clutter-free cockpit with everything they need on their Samsung GALAXY tablets.

**Solutions for flight attendants**

**Tablets**

Flight attendants can multi-task quickly and efficiently, such as referencing the crew operations manual or flight manifest on a paperless Samsung GALAXY tablet. They can access passenger information, enabling them to provide personalized service such as providing special meals to enhance the in-flight experience.

**Mobile point-of-sale solution**

Flight attendants can help passengers swiftly pay for beverages or e-catalog merchandise with Samsung GALAXY smartphones and tablets equipped with the mPOS solution. The airline benefits from facilitating mPOS sales and passengers enjoy the convenience and personalized service.

**Solutions for passengers**

**Tablets**

From the comfort of their seats, passengers can enjoy in-flight entertainment on tablets mounted to the back of the seats. Plus, they can browse through e-catalogs and shopping and travel guides, and pay for merchandise on the tablet. When equipped with Samsung GALAXY tablets, airlines can delight guests with an immersive HD multimedia entertainment experience that will leave a lasting, positive impression.
Deliver real-time information and convenient services to travelers in an inviting atmosphere

Area 4: Transportation infrastructure scenario

Transportation terminals

- **Obtain up-to-the-minute travel information.** A traveler enters the terminal and checks the clear, easy-to-read digital signage for flight information.
- **Check in.** Another passenger approaches a self-service kiosk to check herself in and obtain her boarding pass.
- **Relax in a comfortable atmosphere.** While awaiting his departure, a passenger relaxes in the clean, cool air circulating throughout the terminal.
- **Provide soothing lighting.** While enjoying their meals, diners are soothed by the pleasant, natural glow emitting from the lighting in the terminal restaurant.
- **Connect to the wireless network.** A business traveler seamlessly logs into her emails on her laptop through the terminal’s secure Wi-Fi network.

System air conditioner (SAC) and control solution

Travelers and staff can enjoy a comfortable terminal environment with SACs that provide superb cooling. Energy efficiency and simplified management are also important considerations in lowering total cost of ownership (TCO). Samsung Digital Variable Multi (DVM) SAC and the 4Way Cassette S SAC indoor unit deliver it all. The automatic Data Management System and Remote Management Systems provide seamless control, even from a mobile device.

Lighting infrastructure

Terminals must provide a well-lit environment that is pleasing to travelers and comfortable for employees. Samsung PAR30 LED lighting is the smart choice for transportation terminals and is an energy-efficient, longer-lasting and cost-effective replacement for halogen lamps, reducing maintenance and utility costs.

Wireless connectivity

It is important for terminals to ensure staff and travelers receive heightened service coverage throughout the facility. Samsung Wireless Enterprise offers a wide range of access points (APs) for various needs. A dedicated, secure module gives employees and travelers easy access to a stable Wi-Fi network, increasing operational efficiency and providing seamless connectivity anytime, anywhere.

Samsung offerings for the transportation infrastructure

Solutions for transportation terminals

**Digital signage and content management software**

Deliver up-to-the-minute transportation information 24/7, on slim HD displays and interactive touchscreens with Samsung SMART Signage DHD and PEC Series displays.

Easily create, display and manage content in the form of videos, images and PowerPoint® files on multiple displays from one central location using USB memory or through a server with MagicInfo® Lite Player. In addition, enjoy the flexibility of full-screen or multi-frame layouts with greater screen control through MagicInfo-i™ Premium.

**Interactive kiosk**

Travelers can perform self-service functions on touchscreen displays, such as obtaining e-boarding passes on their mobile devices and finding flight information. Samsung interactive kiosks are highly readable in direct sunlight in terminals and can withstand harsh weather conditions, for outdoor environments.
Equip the administrative staff with productive solutions to work more efficiently

Administrative offices

- **Perform business tasks with a smartphone.** While walking through the facility, a terminal administrator calls different staff members to give work directives, knowing it is protected with high-level mobile security.

- **Conduct an interactive business meeting.** The personnel manager holds a meeting with her staff and shares information using an interactive whiteboard.

- **Scan and print documents remotely.** A staff member sends documents to be scanned and printed through his mobile device to a multifunction printer (MFP) from a remote location in the terminal.

- **Print from the cloud.** Another staff member enters the office to have some documents scanned and printed from the secure, cloud-connected MFP.

- **Facilitate document workflow.** Using automated document output solutions, a terminal manager monitors and allocates print authorizations.

Solutions for administrative offices

**Mobile device security solution**

Samsung KNOX™ 2.0 is a powerful enterprise-level mobile security solution that enhances work productivity with convenient management and deployment and multilayered security for terminal staff. KNOX 2.0 is available on Samsung smartphones, tablets and notebooks and offers support for a variety of apps.

**Interactive whiteboard solution**

Terminal staff can conduct interactive meetings and share documents using an interactive e-board. Samsung displays become powerful interactive tools with the optional Touch Overlay and MagicIWB™ (Interactive White Board) solution. Participants can collaborate over the terminal’s secure network.

**Multifunction printers**

Securely print and scan documents using Samsung MFPs with authentication. They provide flexible mobile printing and are energy efficient, lowering costs. A powerful dual-core processor provides superb performance for a streamlined workflow. Terminal managers can also easily oversee printer usage.

**Mobile printing solution**

Using Samsung MobilePrint, terminal staff can print and scan a variety of documents directly to and from any Samsung printer on a local area network with a secure Wi-Fi access point (AP) from a mobile device. As an added convenience, the files can be shared to a PC or email address.

**Cloud printing solution**

Terminal staff productivity can be boosted with a seamless working environment using cloud printing. Samsung Cloud Print gives terminal staff the flexibility to print and scan from mobile devices, displays and printers, and includes the KNOX mobile security solution with data encryption.

**Business printing solutions**

Airport staff can increase productivity by automating workflow and can protect business, personal and document data. They can also scan to and print from the cloud, and monitor print usage to control costs. These capabilities come with a variety of cost-efficient, easy-to-deploy printing solutions provided by Samsung Business Core™ Printing Solutions (BCPS).

**Cloud displays**

Staff can work more efficiently in a clutter-free workspace while enjoying the convenience of immersive content delivery on Samsung SMART Cloud Displays. Their slim design includes built-in speakers and ergonomic features for added staff comfort. Plus, display software can be managed from one central location, conserving staff resources.
Case studies

**McCarran International Airport**

**Client’s challenge**
This Las Vegas airport needed innovative digital signage solutions to create additional marketing opportunities for advertisers and to provide increased exposure to its broad audience of travelers. The increased marketing opportunities and partnerships with advertisers would generate additional revenue for the airport.

**Solution**
The airport agreed to partner with Samsung Electronics America to design and install a state-of-the-art video wall. Under the agreement, Samsung provided a total of 100 Samsung 460UT-2 LCD SMART Signage displays in exchange for branding rights and exposure to McCarran’s 40 million annual passengers.

**Benefits**
The mutually beneficial agreement between McCarran International Airport and Samsung Electronics America resulted in the world’s largest video wall and digital advertising network. Additionally, it is estimated that the video wall helps produce an additional US$500,000 to US$1 million in gross advertising revenue for the airport each year.

**ÖBB Group (Austrian Federal Railways)**

**Efficient time-management and resource deployment**
ÖBB Group chose Samsung GALAXY devices to effectively deploy staff and resources while on the move. They also purchased Samsung SMART Signage for all back-office employees. As a result, resource management is greatly improved and staff can be summoned and relocated wherever needed quickly and efficiently, enhancing overall passenger transit.

**Hartsfield-Jackson Atlanta International Airport**

**Immersive, entertaining vehicle to guide arriving passengers**
Hartsfield-Jackson Atlanta International Airport included digital signage into its new terminal design that guides arriving international passengers through the Passport Control Center. It houses the largest single unit video wall in the United States, consisting of a total of 108 Samsung displays. Additional Samsung video displays guide arriving international passengers through control queues. As a result, the overall passport processing experience is greatly enhanced.

**United Airlines**

**Easy, mobile access to flight data and technical reports**
United Airlines implemented Samsung’s Print App and mobile-friendly printers to enable employees to print flight plans and departure schedules from smartphones and mobile devices. Employees no longer have to carry laptops, regardless of where they are or where they are going.
Create a customized solution to meet the needs of today's demanding logistics and transportation environment

Samsung logistics and transportation offerings portfolio

**Devices**

**Mobile device**
Lightweight, high-powered smartphones and tablets that streamline operations across facilities

**Multifunction printer**
Energy-efficient mono and color MFPs with mobile printing and scanning capabilities

**System air conditioner**
Durable, energy-efficient system air conditioners that provide a fresh, clean atmosphere

**Access point**
Dedicated security monitoring modules that ensure improvement in wireless coverage

**Solutions**

**MagicInfo**
Easy-to-use display solution that enables effortless content creation, display and management of SMART Signage displays, delivering and targeting messages seamlessly

**MagicInfo VideoWall**
A video wall display solution that enables easy, seamless operation of all displays for a dynamic video wall display that can impress audiences

**MagicWB**
A whiteboard solution that enables easy file sharing and direct access to rich content and interactive tools at the touch of a finger

**Samsung KNOX**
Enterprise-level mobile security solution that delivers robust hardware- and software-integrated security

**Samsung Business Core Printing Solutions**
A serverless printing solution that provides cost-effective and secure print operation

**Remote Management System**
A simplified, cost-effective way to manage multiple displays from one central location

**SMART Signage**
Innovative visual displays, with slim bezels that deliver an immersive viewing experience through their brilliant picture quality

**SMART Cloud Display**
A slim, all-in-one monitor that provides a clutter-free workspace

**LED lighting**
High-quality, energy-efficient lighting to illuminate the environments of terminals and passenger lounges

**Samsung Mobile POS**
A packaged payment solution, including a POS device, accessories and the mobile POS application, for faster, more efficient payment processing

**Data Management System**
A convenient solution for managing a large number of air conditioning units simultaneously

**Samsung Cloud Print**
An intuitive mobile print solution that enables printing and scanning from mobile devices to a Samsung MFP

**Samsung Wireless Enterprise WLAN solution**
Secure and stable network solution for seamless device interaction and efficient communication to ensure an optimized passenger experience and enhanced work productivity
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For more information
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