

Samsung in Government

Modernize government strategies
with security-fortified mobile technologies



Table of contents

Industry trends	3
Customer needs	3
Samsung capabilities	3
Mobile work government environment	4
Situation and offerings	5
Situation 1: Eavesdropping prevention	5
Situation 2: Multiple OSs for military use	6
Situation 3: Handheld devices for military use	7
Situation 4: Mobile police enforcement	8
Situation 5: Field personnel solutions	9
Case studies	10
Samsung government offerings portfolio	11
Legal and additional information	12

Streamline government processes while aligning with strict security standards

Industry trends

The shift towards integrated government and its effect on innovation adoption

Growing attention on cost reduction

Major global governments are implementing IT shared services delivered on cloud-based infrastructures to reduce total cost of ownership (TCO). As customers, governments are demanding more effective execution of their IT spending. Project financing in the government IT sector is also trending, along with an increasing demand for commercial off-the-shelf (COTS) instead of government off-the-shelf (GOTS) devices and solutions.

Rising importance of cloud adoption and mobility

Cloud computing continues to gain momentum in the private sector. Prominent nations recognize the cloud's ability to expedite and enhance mobile strategies as increasingly more governments embrace mobile channels to improve service delivery and engagement with citizens. Driving these mobility initiatives is a growing need for transparency between governments and citizens to ensure public trust, and transparency within government agencies to improve collaboration.

Strengthening security for data and supply chains

With national security on the line, the stakes are no higher than at the government level. As a result, the most stringent levels of security are demanded from the manufacturing phase to actual field use when it comes to devices, solutions and services for a standard of no risk to low risk. This entails a procurement process that requires the highest compliance standards with increasing security scrutiny in IT supply.

Increasing demand for specialized solutions

Governments comprise various branches and departments that require customized solutions, such as ruggedized products for military personnel. For this, customized solutions are necessary to cover all levels of government. Agencies of every level and type can develop in-house software to meet their specific requirements and create the most optimized, cost efficient solution.

Customer needs

Employ the latest technologies for improved security and mobility

Meet strict government compliance standards

Government agencies require mobile devices that satisfy the strictest security requirements, such as Federal Information Processing Standards (FIPS) and Common Criteria (CC).

Achieve secure mobile communication

Government administrations need secure mobile networks to avoid information leaks and to ensure effective collaboration and swift decision making at any location at any time.

Enhance defense and public safety activities

Military personnel and civil enforcement require advanced technologies to enhance capabilities and intelligence. They also require device integration to perform tasks efficiently using optional solutions.

Samsung capabilities

Enhance government environment with incomparable security and usability

Samsung's smart technologies safeguard government data and support public and national defense with a broad portfolio of integrated devices and networks.

- Digitize government administration and security.**
Ensure flexible, efficient communications between government agencies with a rigid security system, and drive collaboration and cost savings with innovative devices, solutions and infrastructures.
- Reinforce defense with innovative technology.**
Modernize national defense by embedding cutting-edge technology into the entire combat process and utilizing the latest security standards to ensure secure military communications.
- Accelerate field service with mobile devices.**
Differentiate field service with smartphones and tablets for more agility. Drive operational excellence by reducing expenses with service automation and increasing efficiency with mobile device capabilities.

Transform the government environment with heightened efficiency and robust security

Mobile work government environment

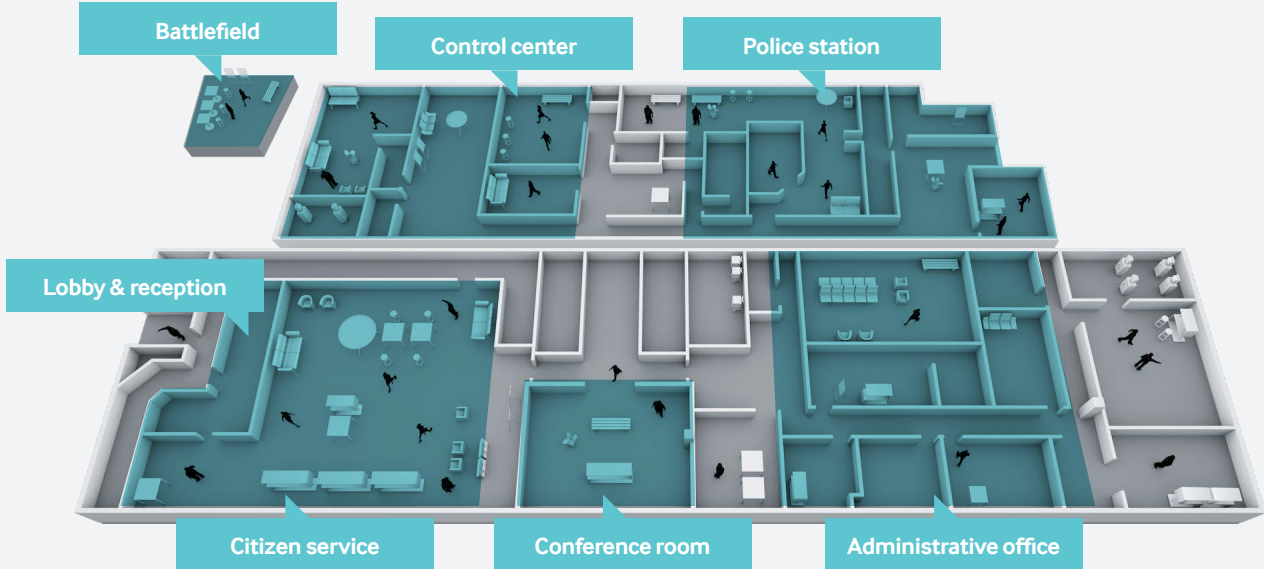


Figure 1. Mobile work government environment areas

	Description	Key offerings
<p><i>Situation 1</i> Eavesdropping prevention</p>	Provide disparate government staff with a secure wireless network to exchange classified information without the risk of eavesdropping	 Smartphone  Tablet
<p><i>Situation 2</i> Multiple OSs for military use (Type 1 Hypervisor)</p>	Equip military personnel with multiple OS devices for convenient use between two different situations	 Smartphone  Tablet
<p><i>Situation 3</i> Handheld devices for military use</p>	Increase tactical command and situational control with secure, versatile mobile devices that can withstand the rigors of the battlefield	 Virtual Desktop Infrastructure  Smartphone
<p><i>Situation 4</i> Mobile police enforcement</p>	Empower law enforcement officials with greater mobility and efficiency-enhancing capabilities to more effectively maintain public order	 Wearable device  Samsung KNOX
<p><i>Situation 5</i> Field personnel solutions</p>	Equip field personnel with durable and convenient mobile tools to be more productive and efficient	 Smartphone  Tablet  Samsung KNOX

Ensure confidentiality of classified communication with advanced data encryption

Situation 1: Eavesdropping prevention

- **Exchange classified information.** Using a Samsung secure smartphone, a Federal Agent calls disparate users to exchange classified information.
- **Encrypt voice and messaging.** The Federal Agent transmits government data securely without worrying about eavesdropping, thanks to a secure MicroSD card that encrypts voice services and messaging.



Key offerings for general public administrative activities in government office

Smartphones and tablets

Security is becoming a foremost priority for governments as they become more digitized and in turn more vulnerable to attack. Along with sleek, portable design and powerful performance to handle any task, Samsung mobile devices come equipped with government-grade security featuring CC certification. As an international security standard for computers, CC certification ensures government agencies can trust the integrity of a wireless network or device. This allows disparate government officials to exchange classified information with flexible and secure mobile security solutions.

Internet Protocol Security (IPSec) VPN availability allows mobile users to securely access government networks through integration of access control, authentication and encryption to ensure the security of network connections over the Internet.

MicroSD card

MicroSD card is a solution that encrypts voice messages and services to ensure confidential wireless communications. This solution is FIPS-certified for high assurance of mobile security and eavesdropping prevention.

- Federal Information Processing Standards (FIPS) 140-2 level 3 certification is regulated by the National Institute of Standards and Technology (NIST) as well as the Secretary of Commerce.
- Secure Real-time Transport Protocol (SRTP) implemented by MicroSD provides end-to-end encryption, authentication, and integrity of calls and messages between users.

Safeguard classified military communications with multiple security-rich networks

Situation 2: Multiple OSs for military use

- **Transmit classified information.** Military personnel transmit mission-critical information over a secret military domain using Samsung mobile devices.
- **Transmit non-classified information.** Military personnel access non-mission-critical apps, such as medical training data, on the Internet, using a non-classified OS.



Key offerings for defense activities

Smartphones and tablets

More military governments are replacing their rugged tactical communications devices with smartphones equipped with OS separation technology. Samsung smartphone and tablet hardware is CC-certified to support this trend of OS-level separation. These dual-persona Samsung devices safeguard military networks and keep mission-critical communications separate from non-mission-critical information.

Type 1 Hypervisor

Samsung smartphone, GALAXY Note® and GALAXY Tab® devices support the Type 1 hypervisor solution, which allows multiple operating systems to run on a host computer concurrently. Therefore, Samsung mobile devices with the hypervisor solution enhance security and meet government needs to keep classified communications more secure than other communications.

With the Type 1 hypervisor solution, government military organizations such as the US Department of Defense (DoD) can have several types of domain access:

- **Classified use.** The hypervisor adds a second level of encryption (data-at-rest and data-in-transit) on top of Samsung’s built-in Android encryption layer, assuring highly flexible and secure classified mobile operations. DoD staff can have dual-domain classified access, such as Secret Internet Protocol Router Network (SIPRNet) in one domain and coalition/Combined Enterprise Regional Information Exchange (CENTRIX) in another domain.

- **Unclassified use—NIPRNet and Internet.** Hypervisor-enabled Samsung GALAXY devices substantially boost savings and productivity for budget-strapped departments that cannot afford to purchase devices for all staff. Instead, DoD personnel can purchase a standard Samsung device and then use the hypervisor to add the managed, unclassified domain: the Non-secure Internet Protocol Router Network (NIPRNet). DoD staff can then safely exchange sensitive but unclassified information between "internal" users and access the Internet and non-mission-critical apps.
- **Cross-domain access.** The hypervisor can host dual Android domains at varying security levels, notably unclassified/NIPRNet and classified/SIPRNet or similar with required approvals. Cross-domain access solutions are the most rigorously evaluated and certified computing solutions to ensure secure communications across allied forces and governmental organizations.
- **Convergent tactical radio.** Next-generation tactical communications promise a convergence of combat radios with economical smartphone technology, offering military personnel both powerful mobile computing and secure waveform communications. The hypervisor-powered Samsung device will process some of the radio’s classified and cryptographic data, reducing the scope of the radio hardware to create a single, compact unit. This combat radio will offer soldiers increased battlefield mobility and responsiveness with the agility of a smart device coupled with secure tactical communications.

Gain tactical control with security-enabled infrastructures and mobile versatility

Situation 3: Handheld devices for military use

- **Issue tactical commands.** Mission control can deliver tactical commands from the mission command system with Samsung virtual desktop infrastructure and mobile devices.
- **Receive communications.** Soldiers in the field receive the tactical commands on their Samsung mobile devices.
- **Gain situational control.** Mission control shares situational awareness between military soldiers and the control room.
- **Create and send notes.** Send clear mission reports using the Samsung GALAXY stylus pen.



Key offerings for defense activities

Virtual Desktop Infrastructure

The Samsung Virtual Desktop Infrastructure (VDI), with Zero Client stands, displays and desktops, facilitates government cloud initiatives while providing solid security in military applications. Samsung Zero Client offerings secure and simplify desktop end points by replacing the local OS with hardware-level intelligence

- Samsung Zero Client offerings are Trade Agreement Act (TAA) compliant and designed for VDI access, for a small software and hardware desktop footprint. With almost a zero attack surface, military personnel know that mission-critical data is accessed solely by a highly secure device.

Smartphones and tablets

Samsung provides an array of mobile devices aligned with military functionality. With specialized military solutions, personnel can gain dismantled mission command and situational awareness capabilities for faster, more accurate decisions during a tactical fight.

- **Ingress Protection level of 67 (IP67).** Samsung mobile devices are rated at an Ingress Protection level of 67 (IP67), for protection against dust and water immersion. Anti-shock protects the device from drops up to 1.2 meters with the attached cover.
- **Rugged accessory.** Samsung mobile devices boast a ruggedized design to protect the devices in harsh field conditions.

Tactical device management

Samsung militarized mobile devices are embedded with a defense-specialized tactical management solution to enhance action readiness.

- **GPS** provides constant situational awareness.
- **Detachable battery** provides 8-10 hours of operation and enables battery removal shut-down..
- **High-resolution camera** delivers a firsthand record of actions on the ground in real time.
- **Stylus pen (S Pen™)** provides dynamic writing and multitasking in mission-critical situations.
- **C pen** enables precision schematic drawing with a 3-mm smudge-free, titanium tip.
- **Pogo pin** offers a flexible, reliable connector solution for military device interface in the field.

Military customized software

Military agencies can ensure confidentiality and convenience using security-embedded Samsung smartphones with specialized military software, developed in-house by the military.

Streamline mobile law enforcement through integrated technologies

Situation 4: Mobile police enforcement

- **Enforce the law with custom software.** A local police officer identifies a stolen vehicle on the highway using the mobile app Automatic License Plate Reader (ALPR) on a Samsung mobile device.
- **Fingerprint suspects in the field.** Suspecting the driver is wanted for previous charges, the police officer asks the suspect for a fingerprint using biometrics technology on Samsung GALAXY S5®.
- **Capture images for reports.** The police officer captures an image of the suspect's vehicle with GALAXY Gear™ and sends it to the control room.



Key offerings for public order

Smartphones and tablets

As digitalization penetrates more deeply into government agencies, technology is fast becoming a staple of law enforcement. Samsung smartphones and tablets with CC certification provide a fast, secure way to exchange information quickly and easily to expedite maintaining public order at any location and even on the move.

Wearable devices

The high-quality metallic wrist strap of GALAXY Gear comfortably wraps around the hand, offering productivity within easy reach for government enforcement agencies. Government staff can use the touchscreen to check messages, capture images and communicate while on the go. While on their routes, police officers can even call the control room, or public administrative staff can respond to public emergencies quickly with call capabilities directly on their wrist.

Samsung KNOX

Samsung KNOX® is a secure enterprise mobile platform that delivers a robust, hardware-based security foundation for the mobile enterprise. To support government cloud adoption initiatives, Samsung KNOX Marketplace offers a one-stop solution for purchasing cloud-based business applications and assigning them to authorized employees. Samsung KNOX EMM extends the cloud support with cross-platform,

cloud-based enterprise mobile security management featuring a centralized web console for managing government employees' devices, containers and applications.

Biometric identification

Mobile fingerprint verification allows officers to quickly ascertain the identity of an individual and perform a background check so they can take appropriate action. Samsung mobile devices provide a fingerprint scanner supported by two-factor biometric technology to secure device and data access. To ensure data protection, Samsung mobile devices also offer multi-layered security from ARM® TrustZone® and SecureBoot® technologies.

Software for police forces in the field

Using Samsung mobile devices, police officers can use customized software to facilitate more effective law enforcement in the field. As an example of this software, Automatic License Plate Recognition (ALPR) offers a mass surveillance method that uses optical character recognition (OCR) on images to read vehicle registration plates. Police officers can use ALPR and similar software to regulate speeding, illegal parking, toll violations and so on.

Drive productivity even from the field with process-efficient technologies and features

Situation 5: Field personnel solutions

- **Obtain a signature.** A government building inspector conducts a sanitation test for a building and receives a signature from the manager.
- **Print documents.** The building inspector transfers the secured documents to the control room and prints a test result with a portable Bluetooth® printer.



Key offerings for public order

Smartphones and tablets

As digitalization penetrates more deeply into government agencies, technology is fast becoming a staple of law enforcement. Samsung smartphones and tablets with CC certification provide a fast, secure way to exchange information quickly and easily to expedite maintaining public order at any location and even on the move.

- **Ingress Protection level of 67 (IP67).** The IP67 certification and shock-resistant device mean that field personnel can stay productive in the face of severe weather changes or mishaps.
- **Rugged accessory.** Government field personnel, such as fire safety, census, pollution control and hunting control staff, face a variety of environmental conditions and hazards on a daily basis. Government field personnel are ready for anything with these rugged, durable devices.

Samsung KNOX

Samsung KNOX delivers powerful mobile security for Samsung mobile devices. With multi-layered security, two-factor biometric authentication and industry-leading device management capability, Samsung KNOX offers field personnel reinforced data and device security while on the go.

Various input methods

Samsung mobile devices provide several data input methods for added convenience while in the field:

- **Camera.** Field personnel can use the high-resolution camera to capture documents and field images in vibrant, clear color representation.
- **Stylus pen.** The S Pen is a handy input device that enables field personnel to take notes directly on the mobile devices for dynamic multitasking capabilities.

Partner with a global enterprise mobility solutions provider for a mobile government environment

Case studies

US Army—PM Net Warrior

Client's challenge

The US Army sought to update its tactical communication systems using commercial mobile devices. The Army needed secure devices to develop and integrate, field and sustain its US Soldier systems, connecting soldiers to the Army-controlled network. The goal was to improve mission-command capabilities, situational awareness and soldier power using handheld devices for greater mobility and survivability during combat.

Solution

The US Army selected the Samsung GALAXY Note II to replace the previously used device on account of its compact size, superior display technology, higher processor performance, and broader overall Samsung support for their project. Army officials then installed their Net Warrior network communications software on Samsung GALAXY Note II devices, connecting soldiers with each other and mission command over a proprietary broadband network.

Benefits

The Net Warrior system, supported by Samsung GALAXY Note II devices, enhances mobility for Special Forces, platoons, battalions and divisions in theaters all over the globe. The lightweight devices mobilize forces, enabling dismounted personnel to navigate the battlefield more adeptly and communicate with mission command and fellow soldiers more efficiently for higher survivability. Soldiers can use the device to locate fellow soldiers on a digital geo-referenced map, and relay text messages and other information to both lower echelons and commanders using security-rich Samsung GALAXY Note II devices.

The solution also provides unparalleled situational awareness and mission command capabilities for the dismounted leader for faster and more accurate decision making during combat. With advanced navigation and information-sharing capabilities using Samsung GALAXY Note II, leaders can avoid fratricide and are more effective and more lethal in the execution of their combat missions.

Xi'an Public Security Bureau in China

Integrated and Customized Mobile Police System

Managed by the Xi'an Municipal Government of China, the Xi'an Public Security Bureau needed to acquire mobile devices equipped with terminal pre-loaded software, customized boot screen, APN (Access Point Name) locking, and one-click camera functionality as a part of the second stage of its Mobile Police system. Xi'an political and legal affairs chose to deploy Samsung GALAXY Win Pro G3819D numbering 9,000 units along with customized Mobile Police system software among its security force. Police officers can now use the camera to take one-click photos on-site and immediately transmit them to headquarters. They are also authorized to access the intranet for contacts and receive alert notices through the Mobile Police system software. With a new set of useful and secure mobile functionalities police can now more effectively and efficiently maintain civil order.

Samsung government offerings

Samsung offerings

Devices

Smartphone

Secure smartphone that offers government officials the convenience of confidential communications on the go



Printer and Multifunction printer

High-performance printer equipped with mobile printing function and enhanced security features to drive government operations



Tablet

Heavy-duty smartphone that provides military personnel fortified, reliable communication in the theater of war



Virtual Desktop Infrastructure

Zero Client stands, displays and desktops that facilitate government cloud initiatives while providing solid security in military applications



Wearable device

Convenient wearable GALAXY Gear that provides government staff and police with enhanced communication capabilities



Tablet PC

Robust mobile device that delivers the superior functionality needed for mission-critical government and military communications



Solutions

Digital Signage

Ultra-slim-bezeled displays that combine to form seamless video walls that project field conditions in brilliant, true-to-life color



Call Manager (Samsung Deskphone Manager App)

Productive smartphone enhancement that combines contact registry integration with click-to-dial seamless calling



Samsung KNOX

Secure enterprise mobile platform that delivers a robust, hardware-based security foundation for the mobile enterprise



3rd Party Offerings

Devices

Portable Bluetooth printer

Easy-to-use, wireless portable printer that reliably prints captured field images and official government documents for citizens

Fingerprint Accessory for Mobile

Versatile security feature supported by two-factor biometric technology to enforce mobile device and data security with robust authentication

Solutions

MicroSD card

High-assurance memory card that protects communicates with end-to-end AES 256 and NSA Suite B encryption security

Type 1 Hypervisor solution

Network virtualization solution that allows multiple operating systems to run on a host computer concurrently for maximum security of classified information

Custom military-developed SW

Specialized SW that provides military agencies confidentiality and convenience with easy integration on security-embedded Samsung mobile devices

SW for police field forces

Custom software that empowers police forces with enhanced capabilities to enforce speeding, parking and toll regulations using mobile devices

Legal and additional information

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Samsung Electronics Co., Ltd. is a global leader in technology, opening new possibilities for people everywhere. Through relentless innovation and discovery, we are transforming the worlds of TVs, smartphones, tablets, PCs, cameras, home appliances, printers, LTE systems, medical devices, semiconductors and LED solutions. We employ 286,000 people across 80 countries with annual sales of US\$216.7 billion. To discover more, please visit www.samsung.com.

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