



# KPMG smart warehouse and smart depot

Transform your buildings and processes into smart military bases



A signal from a delivery truck crossing through a geofence aligns your supply chain in real time. It integrates data from an advanced shipping notice to autonomous equipment in the warehouse now positioned to receive new equipment. This personal, frictionless experience can occur daily, with limited intervention, and incorporate security, food services, and advanced manufacturing. It can also happen today.

## Smart bases are real

As this scenario shows, supply chain processes can be much more than moving goods. Buildings are also no longer just static structures. Modern methods and technology connect and choreograph base operations, personnel, and infrastructure to create **smart bases** that government leaders envision. Bases where technology and people create human-machine teams that make data-driven decisions. In a smart base, smart logistics depend on an ecosystem of modular capabilities delivered through a network of digital, connected systems that scale to meet missions. They are more responsive and resilient with lower risk and costs, and future smart bases will self-align, self-optimize, and be autonomous.

Technology advances in robotics, automation, and networking as well as artificial intelligence and augmented reality are the backbone to smart bases. 4G enables robots and conveyers. While future generation networks will continue to improve, 5G now connects humans to machines and machines to machines. This optimizes the way equipment flows to be more efficient in a warehouse. Real-time human interaction allows workers to be more responsive to customers. Then cybersecurity controls help make every action safer.

KPMG LLP (KPMG) is helping federal agencies achieve their smart base visions using our customizable approach that includes components such as **smart warehouse** and **smart depot**. We are working with the **U.S. Marine Corps** to develop a 5G smart warehouse<sup>1</sup> to improve logistic operations for its largest armory. It will identify, record, organize, store, retrieve, and transport material and supplies. We are also helping transform how the **Department of Defense** stores and issues its most sensitive weapons, COMSEC, and optics.

These **smart warehouse** and **smart depot** approaches improve inventory accuracy and accountability with RFID and robotic input, reduce manpower and increase warehouse capacity with faster responses, and improve mission readiness. Soldiers know where gear is and how fast they can get it.



<sup>1</sup>Source: NavalTechnology, "KPMG to support delivery of USMC 5G smart warehouse," April 13, 2022

# Where to begin to engineer a smart base

Building a smart base starts as a vision and evolves over time. Our framework can be a guide to begin turning your smart base vision into reality. The framework includes these considerations.

- Leading bases determine the service level standard rather than reacting to changing customer expectations.** Logistics value chain customers focus on more than gear and equipment. They demand seamless, transparent, rapid fulfillment. This expectation shift is a natural outcome of the 5G revolution, autonomous equipment, mobile technology, and connectivity. Smart base leaders build interconnected, digitally enabled, predictive networks that connect customers directly.
- Digital platforms enable new logistics, planning, and security capabilities.** By using digital interfaces, base operators can work directly with logistics providers, warehouse managers, and depot plant managers. Digital technology enables supply chain components—from demand planning through storage and delivery—to integrate with security for access on and off base.
- Digitizing employee experiences can enhance workforces,** a goal that military police and security as well as depot and commissary team members strive to achieve. With digital expertise and standard algorithmic processes, employees can augment decisions and extend base operators' expertise. The framework integrates intelligent, predictive, and learning processes. Advanced machine learning algorithms monitor and tune process performance using data from sensors, cameras, and applications.
- Sustainable, connected networks engage digital platforms that enable visibility, collaboration, and greener solutions.** Smart storage and inventory, such as moving from propane-powered material handling equipment to autonomous, electric lifts reduces carbon



footprints. Interconnecting smart bases to decrease cross-docking decreases emissions. The framework helps bases identify needs then advances adoption based on our smart warehouse and smart depot capabilities.

**A smart base incorporates cognitive decision centers (CDCs) to use data in optimizing all aspects of the base.** CDCs create a cross-functional view of the smart base—from logistics and warehousing to security and base operations. A smart base built using our smart warehouse and smart depot solutions uses artificial intelligence to capture and interpret cross-functional data. This data help leaders identify operations complexity and simulate what-if scenarios.

## Let us help you build the smart warehouse you envision

Our team members combine government knowledge, practical ideas, and personal and professional experiences to help tailor and advance your smart base. Add our approaches with accelerators and methodologies as guides and you can gain creative ideas and faster approaches that turn visions to realities. Secure, sustainable, and efficient operations are vital. Let us help your organization meet mission requirements in modern ways.

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