

A Guide to Your Future Kiosk Solutions

Implementation Challenges and Benefits

While digital kiosks have revolutionized industries like retail, Quick Service Restaurants (QSR), and hospitality by enhancing customer experiences and streamlining operations, the journey to their successful deployment involves a complex mix of technological, operational, and financial considerations.

Beyond the visible benefits of efficiency and data collection, businesses must navigate challenges such as system integration, evolving AI demands, and long-term maintenance strategies.

Understanding these challenges is critical for businesses that want to maximize their investment in kiosk technology. It's not just about choosing the right hardware; it's about creating a strategy that adapts to future trends, integrates seamlessly with existing infrastructures, and meets the growing expectations of tech-savvy customers.

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Considerations and Challenges

When incorporating new kiosks into existing operations, businesses must address several key challenges ranging from integration issues with existing systems to upfront costs, user experience and design optimization, and ongoing maintenance and technical support. Through understanding these hurdles, we can then explore solutions that pave the way for a successful kiosk operation.

The following are key considerations to address when businesses are looking to integrate kiosk systems into both new and existing operations:

Obstacles to Integration

Seamless integration with a business's existing back-end systems such as POS, inventory management, and other programs is crucial. Incompatibilities between kiosk software and existing systems can create unintentional data silos where information becomes fragmented, thus hindering the existing operations and requiring the creation of manual workarounds such as re-entering kiosk data, increasing the risk of error while also negating efficiency gains. Additionally, malfunctions in connecting features like loyalty programs or real-time inventory management can negatively affect the customer experience and limit functionality, reduce effectiveness, and detract from the intended value.

Underestimated User Experience and Design Customization

A poorly designed kiosk interface and lack of appropriate peripherals can frustrate customers and hinder operations. Essential peripherals such as barcode scanners, cash dispensers, cameras, and thermal printers must be tailored to the use case to ensure smooth functionality and the best possible in-store experience. Additionally, kiosks should be customized to meet the specific hardware and software needs of diverse applications, with design and integration services that address both the user experience and system requirements. Without this careful customization process to create an intuitive user experience, customers may abandon kiosks, undermining the intended efficiency.

The Evolving Demands of AI

Incorporating AI with kiosks provides the capability to offer personalized recommendations and assistance to customers as they navigate through the shopping experience. This can include showing custom detailed product information, suggesting complementary items based on customer preferences or demographic, and even facilitating transactions with greater efficiency. This level of personalization enhances customer satisfaction alongside driving sales, with real-time data and insights gathered by AI helping businesses make informed decisions, optimize inventory, and create targeted marketing campaigns. Many current kiosk systems do not have the technology to adequately support AI features, making it crucial to have hardware that is prepared to support the latest AI advances.

Potential for Large Maintenance Costs

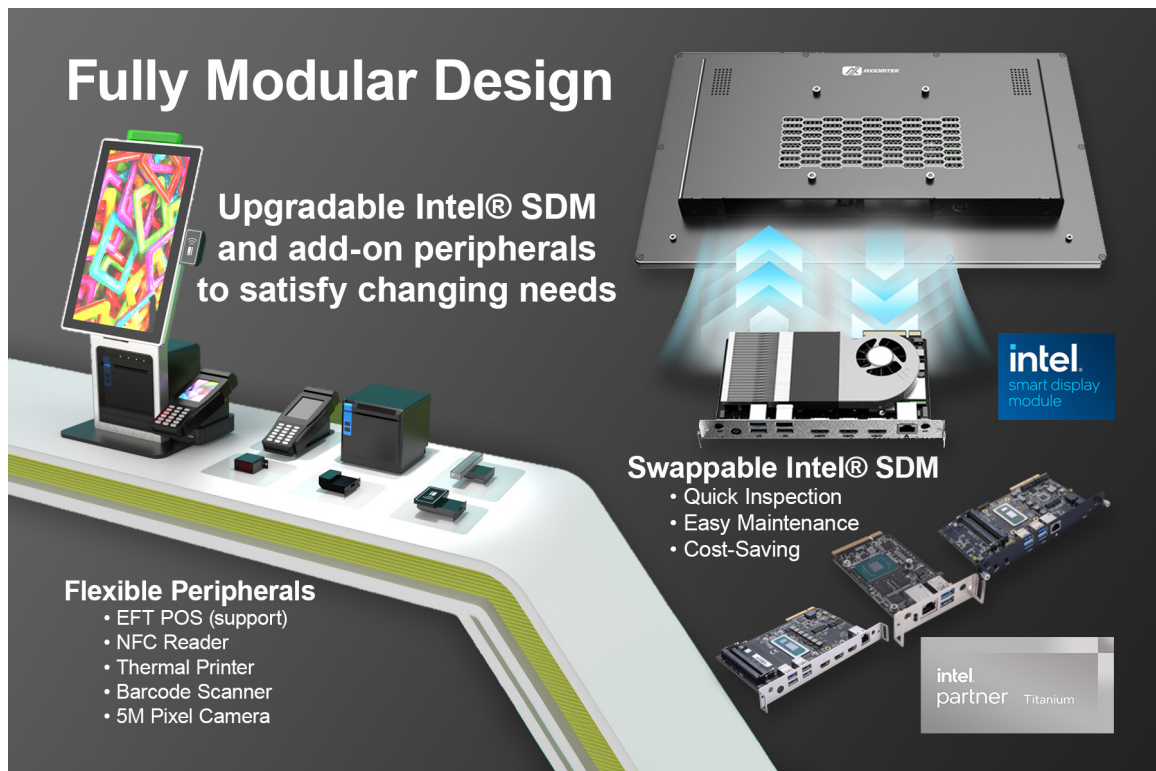
Regular maintenance, software updates, and hardware upgrades will always be essential to ensure the kiosks operate smoothly and securely. Though as technology continues to rapidly change, systems may need to be upgraded or even replaced to stay up-to-date with the latest features. These ongoing expenses can add up over time, making it important for businesses to consider the long-term financial commitment when evaluating the total cost of ownership and looking into options to reduce expenses while keeping the same value.



Enhance Your Kiosk Operations

While acquiring kiosk hardware is a crucial first step, successful deployments require overcoming challenges such as integration complexities, detailed budget considerations, user experience design, and customization limitations. This is where a reliable strategic partner and integration support becomes essential to navigating these complexities.

Axiomtek is committed to assisting businesses across all industries to incorporate kiosk and self-service technology into their operations. Catering to the specific needs of retail, QSR, hospitality clients and more, all Axiomtek's self-service kiosks are fully customizable, featuring modular designs, optimized features and peripherals, and are backed by our comprehensive development support services.



Fully Modular Design

Upgradable Intel® SDM and add-on peripherals to satisfy changing needs

Flexible Peripherals

- EFT POS (support)
- NFC Reader
- Thermal Printer
- Barcode Scanner
- 5M Pixel Camera

Swappable Intel® SDM

- Quick Inspection
- Easy Maintenance
- Cost-Saving

intel smart display module

intel partner Titanium

The Benefits of Modular Design

As technology continues to evolve, so should your kiosk systems. Modular kiosk design is a powerful approach in kiosk technology that offers flexibility, scalability, and cost efficiency.

Not only does a modular approach enable businesses to tailor their kiosks to specific needs, but it ensures a system remains adaptable to future developments. With interchangeable components, hardware upgrades or adjustments can be made without overhauling or replacing the entire system. This flexibility is crucial to enabling easy hardware upgrades and keep kiosks current with the latest technology while simultaneously reducing costs.

Modular kiosks are also designed to minimize downtime. With easily swappable components, quick replacements can occur on-site, reducing the need for extended shutdowns. This ensures continuous operation, allowing businesses to maintain service levels without interruptions.

Axiomtek's kiosks are built with a highly modular design, allowing for easy customization and quick deployment into a wide variety of applications. The AXtendable Kiosk series is a line of products that exemplifies this approach with its swappable Intel® SDM module, enabling effortless upgrades and reducing downtime when performing maintenance.

Optimized Features and Peripherals

The importance of an amazing user experience from kiosk usage cannot be overstated. UIs should be intuitive, responsive, and attractive for users. Just as important as UIs and software are the physical interfaces used with kiosks. Axiomtek offers a diverse selection of add-on peripherals, including cameras, RFID and IC readers, barcode scanners, thermal printers, and EFT holders. For cash exchange features, we offer NFC readers, bill acceptors and dispensers, coin hoppers and more.

Through our expanding partner ecosystem, we collaborate with hardware and software partners to ensure all advanced peripheral devices and software systems are compatible and reliable. The resulting benefit is an enjoyable user experience unique to individual applications that results in improved customer satisfaction and increased retention.

Complete System Development Support

Axiomtek offers personalized design and manufacturing services through our experienced U.S.-based Design and Engineering Team to create custom kiosk designs to perfectly match your brand identity and unique operational needs. Additionally, our Key Account Management services offer proactive and complete support to guide businesses through all stages of development, from individualized program management to project requirements, planning, and post-project support.

Axiomtek's expertise also extends to developing and integrating AI applications into hardware systems. Through our proprietary DigiHub of verified development resources, businesses are enabled to leverage cutting-edge technology to speed up development and integration processes for quicker time to market and lower costs.

The benefit of these services helps to ensure seamless integration into existing infrastructures, including POS systems, inventory management software, and other management platforms. When integration is made easy, more emphasis can be put towards enhanced customer experiences and operational efficiency.



Use-Case Scenario

A leading coffee chain headquartered in Asia with over 1,000 stores worldwide (with 59 shops in the USA) sought to improve efficiency and profitability through the implementation of self-service kiosks. They needed a compact, multi-functional kiosk that could integrate seamlessly with their existing ordering and checkout systems in stores smaller than 100 square meters.

Axiomtek provided the solution through a customized version of the SSK515 – a 15.6" self-service kiosk with an Intel® Smart Display Module, featuring a 10-point PCAP touch display, extensive connectivity options, and

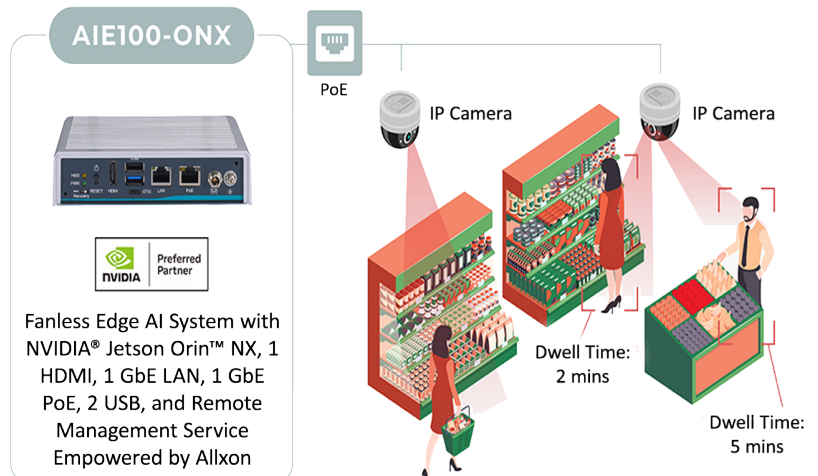
peripherals such as card readers, barcode scanners, and receipt printers for contactless payments.

Deployed in several branches, the SSK515 reduced waiting times and streamlined the ordering process, enabling customers to make selections and payments within a minute. Its compact size and slim profile at less than 90 mm thick make it ideal for space-constrained environments without disrupting the cafe's setup. By integrating the SSK515, the coffee chain significantly enhanced customer flow and operational efficiency, allowing staff to focus on more value-adding tasks.



Smart Retail Edge AI Technology

For other retail applications, Axiomtek's Smart Retail Edge AI systems leverage advanced AI and IoT capabilities to optimize sales and enhance the customer experience. By processing data in real-time at the edge, it empowers retailers with actionable insights on customer behavior, inventory management, and personalized recommendations. The AIE100-ONX, a compact edge AI system powered by the NVIDIA® Jetson Orin™ NX module, enhances these capabilities by offering powerful AI processing for video analytics and intelligent retail operations.



Axiomtek Kiosks

To build on the success of the SSK515, Axiomtek's line of kiosk solutions includes the SSK721 and SSK722 touch screen kiosks and our AXtendable Kiosk Series with customizable options from the board level to full-on kiosk systems.



SSK721

21.5" Full HD
Self-Service Cash Kiosk



SSK722

Dual 21.5" Display Customization
Self-Service Kiosk

The SSK721 and SSK722 both feature a versatile design built around a full HD 10-point capacitive touch touchscreen display with wide viewing angles. These systems can be fitted to specific applications and can support either floor stand or countertop configurations. Additionally, a wide range of add-on peripherals are supported for both cash and cashless transactions, including bill acceptors, note dispensers, coin acceptors, barcode scanners, RFID readers, and EFT holders.

AXtendable Kiosk Series

This tailor-made line of kiosks offers a compact, modular construction and seamless integration of hardware peripherals. Available in 15.6", 21.5", and 23.8" screen size models, these feature a projected capacitive 10-point multi-touch display. Complemented with the integration of Intel® SDM modules, the AXtendable Kiosk series ensures forward compatibility with an upgradable I/O connection interface to meet the different application requirements while providing user-friendly maintenance procedures without any burden.





Kiosks Are Here to Stay

Kiosks have become a cornerstone of modern business operations, evolving to fit the needs of industries such as QSR, retail, hospitality, banking, transportation, government and more. They are proving themselves to be more than just a self-service technology trend. Through streamlining workflows, enhancing customer experiences, and empowering data-driven decision-making, kiosks will continue to offer a strategic advantage in these dynamic industries.

As a dependable kiosk manufacturer, Axiomtek aims to constantly stay on top of new developments and collaborate with our partner ecosystem to develop highly reliable kiosk systems and smart retail technology in a range of customized configurations. Our solutions are intended to help businesses across a variety of markets achieve operational improvements, collect actionable data, and increase overall customer satisfaction. Assisted by our team of U.S.-based design and integration specialists, we allow businesses to ensure swift and cost-effective deployments, guaranteeing businesses comprehensive kiosk systems that adapt and grow alongside their needs.

Let us help you make your next kiosk a reality. Contact us at solutions@axiomtek.com or visit us.axiomtek.com for more information!