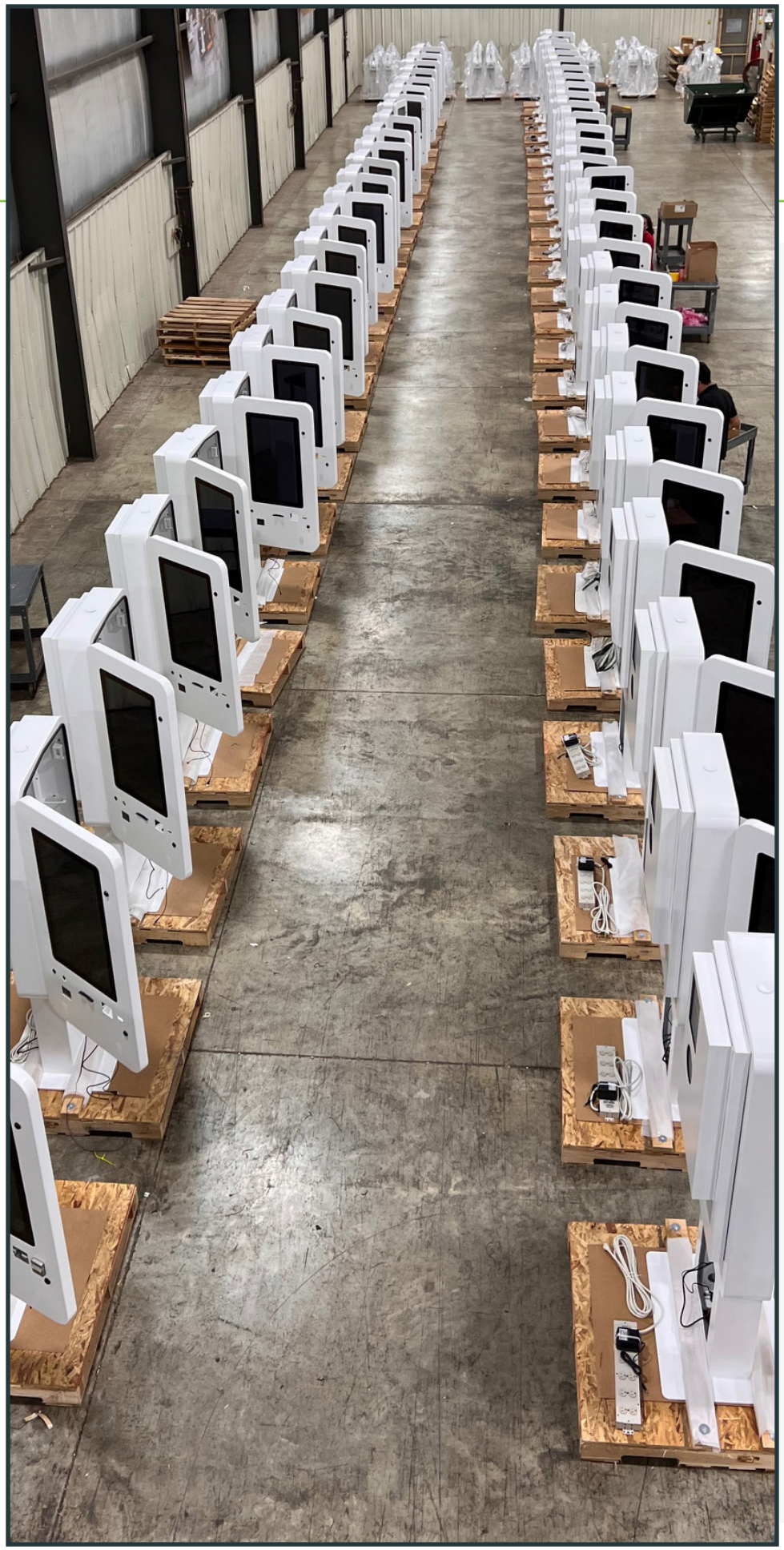
The Enterprise Playbook for Large-Scale Kiosk Programs

AUGUST 2025

FRANKMAYER
KIOSKS ■ DISPLAYS

TABLE OF CONTENTS



Welcome!

With 84 percent of U.S. consumers indicating they prefer self-service kiosks, the technology has officially ingrained itself into our everyday lives. Now, instead of asking if they should implement kiosks, enterprise companies are considering how best to do it.

Deploying these programs at scale, though, involves far more than selecting hardware. Large rollouts have complex needs that demand aligning stakeholders, designing scalable architecture, planning for services across multiple locations, and much more.

So, whether you're a decision-maker who owns your company's self-service strategy or simply part of a larger team evaluating kiosk vendors, our eBook will guide you through how best to bring a successful high-volume kiosk initiative to life.

And as always, we're here to help, so reach out if you have questions.

Getting Started

Navigating Internal Stakeholders

Enterprise kiosk programs are built through collaboration and typically require buy-in from team members across multiple departments like Operations, IT, Finance, Procurement, Marketing, and Legal.

Internal misalignment can be the silent killer of kiosk strategies, though. While Marketing might want designs that meet brand standards, IT may have stipulations on which hardware is best for security concerns. Inviting key stakeholders from each department involved to the table will ensure there are clear expectations and agreement early in the process.

Once your internal team is secured, members should work to identify any internal readiness gaps in those initial conversations. Following the checklist below will help avoid any issues that could turn into bigger problems:

- Define key performance indicators, including existing business metrics or new ones like ticket lift and loyalty.
- Keep integration top-of-mind when designing the kiosk or choosing hardware.
- Plan for lifecycle support.
- Determine a realistic timeline and budget for the project and clearly communicate those with your kiosk manufacturer.

While some external partners join later in the process, it's also helpful to get their involvement during the planning stages. This includes third-party vendors, architectural design firms, construction contractors, and software developers. All these entities offer insight that can be crucial during early discussions.

Because enterprise-level rollouts involve significant planning, many larger brands also choose to hire consulting firms to guide their decision-making. These consultants can conduct feasibility studies, evaluate operational and technical risks, and help define high-level strategies for implementation.

When it comes to assembling the right team to lead your self-service initiative, take time at the outset to map how decisions will be made throughout the program. This includes everything from design approvals and integration signoffs to deployment schedules. Documenting who owns each task and identifying where cross-functional input is required will help prevent bottlenecks and scope creep.

Auditing Existing Technology and Software

Deploying kiosks is rarely an isolated initiative and often ties into a broader customer experience strategy. Start by auditing your existing technology and software to identify where efficiencies and inefficiencies exist.

For example, are you already utilizing certain hardware like receipt printers or payment devices that can be repurposed for your digital kiosks? Or will your program require entirely new components?

Additionally, most software applications used on POS terminals or mobile devices can be adapted for kiosks if they're compatible with the machine's operating system and peripheral setup. This is common in the QSR vertical, where software is frequently built to work across multiple channels. And when new hardware is needed, kiosks can be engineered for software compatibility from the start.

Laying the Right Foundation for Scaling

Multi-site kiosk deployment requires smart design planning from the start. Thinking ahead about modularity and hardware choices helps streamline installation across locations, cuts down on future engineering burdens, and makes procurement more predictable.

Enterprise companies often require some level of customization, whether to reflect brand standards or accommodate operational constraints. So even if a project begins with a standard design, some degree of engineering is typically necessary.

With large volume programs, engineers factor in modular features so kiosks can function across different sites, regions, and use cases. This flexibility also makes it easier to implement future tech upgrades without the need for reengineering.

But what does incorporating modularity look like for a kiosk project at scale?

- **Electronics Flexibility**
  Adaptive component plates, or small panels on the front of a kiosk that can be removed, make using different types of printers, scanners, and credit card readers easier across sites. Not only do they allow for a variety of technologies, but they make future upgrades convenient as well.

- **Mounting Versatility**
  Placement requirements can vary by location, so incorporating assorted mounting options may be needed. This includes removable stands that let kiosks go from freestanding to countertop versions or brackets that allow for wall placement.

- **Flexible Power Options**
  Ideally, powering a kiosk involves dropping the base over an existing conduit, but some installs may need above-ground power or plugs. Engineering for different power options can save headaches in the long run.

- **Choices for Internet Connectivity**
  While running ethernet to the base of a kiosk is preferable, it's not always feasible. In those cases, adding an external Wi-Fi antenna is a good solution to give kiosks a better wireless signal.

- **Consider Branding**
  If your marketing is subject to vary by location or change seasonally, neutral colors along with vinyl decals or magnetic graphics can make branding easy to update. This keeps production simple and cost-effective while also offering flexibility.

Along with designing for modularity, another good practice when planning a large-scale deployment is to prioritize using common kiosk components. While less standard components can certainly be part of custom kiosk builds, keep in mind that using rarer technology can run the risk of creating supply chain headaches since it's harder to source and typically produced in smaller quantities. Standard hardware is more readily available at volume, helping you avoid any timeline disruptions.

The more adaptable your kiosk design is to different uses, locations, and future updates, the less friction you'll face down the road. Pair that with utilizing widely available kiosk components, and you're laying the right foundation to scale.

Capitalizing on Bulk Pricing and Efficiencies

Purchasing multiple kiosks at once unlocks economies of scale, but ordering in volume doesn't only lower per-unit costs. It also opens the door to smarter supply chain strategy. That's because bulk pricing isn't just about quantity discounts, but about weathering market changes, securing warehousing and logistics benefits, and even sourcing components to create cost efficiencies.

Beyond just lowering each kiosk's cost, here are more advantages realized from buying at volume:

- **Resistance to Market Fluctuations**
  A large upfront commitment gives your kiosk manufacturer leverage on component pricing and production prioritization. In many cases, committing to phased rollouts with a guaranteed volume can also insulate you from market fluctuations. While ordering kiosks in smaller waves might seem like a safer move, you risk variable material costs and it leaves you vulnerable to future supply shortages.

- **Bundling Manufacturing and Logistics Services**
  Working with a kiosk manufacturer that can also handle warehousing and distribution services eliminates the need for third-party logistics, offering efficiency for large programs by streamlining all communication and coordination through one point of contact.

- **Smarter Forecasting**
  Building kiosks in bulk allows manufacturers the ability to forecast quantities more accurately and buy common components like screens, printers, and payment devices at negotiated rates. These savings directly reduce your final price.

- **Plan for Field Support with Safety Stock**
  Many brands opt to increase their order by at least 2 to 3 percent to build in safety stock, or extra units that can be hot swapped in the field if repairs are needed. This proactive approach helps minimize downtime and avoids extended lead times when unexpected issues arise.

Buying in volume sets you up to save more than just money. You also gain efficiencies that stretch across the lifecycle of your program.

Implementation

The Importance of Kiosk Prototypes and Pilot Runs

Investing in prototypes and a pilot run is critical when planning a large kiosk rollout.

A kiosk prototype is a one-off, physical model of the kiosk that is built to test design, function, and usability before moving into full production.

A pilot run is a small-scale deployment of kiosks at select locations to evaluate real-world performance, gather feedback, and identify any needed changes before placing a full order.

Both stages of the production process have numerous benefits.

- **Prevent Costly Mistakes at Scale**
  Deploying 250 kiosks only to find a common problem throughout the fleet is a nightmare scenario. Prototyping helps you catch design oversights, like if a scanner placed over a receipt printer might accidentally scan the receipt, if the back opening on the kiosk is too small to install internal componentry, or if the overall size of the unit is too big. Catching issues like these early is far more efficient (and less costly) than retrofitting existing kiosks in the field.

- **Test Real-World Performance**
  Pilot programs reveal how kiosks perform under actual site conditions, which can't be replicated in a kiosk manufacturer's model shop. This includes location-specific elements like power, climate, lighting, and network connectivity. Set up initial runs at different sites to ensure you're testing multiple variables and gathering broad feedback. This gives you a more complete picture of field performance and what could cause potential problems in different environments.

- **Refine User Experience**
  Pilot programs also offer feedback from real users in the field, highlighting accessibility issues, confusing navigation, unclear instructions, poor touchscreen responsiveness, and more. In addition, analyzing early user experience also gives you time to course correct if you've found there's slow adoption to your kiosk pilot.

- **Validate Software and Hardware Integration**
  Testing early helps pinpoint any compatibility problems between peripherals, payment systems, and backend software.

- **Plan for Training Support**
  A pilot is like a dry run, revealing what your on-site employees require to operate and maintain your kiosks. Use this phase to

hone in on training gaps, clarify maintenance procedures, and create clear instructions for staff at future locations.

In the end, prototypes and pilot runs confirm your kiosk program is fully ready before committing to a full deployment and serve as necessary steps when planning large-scale rollouts.

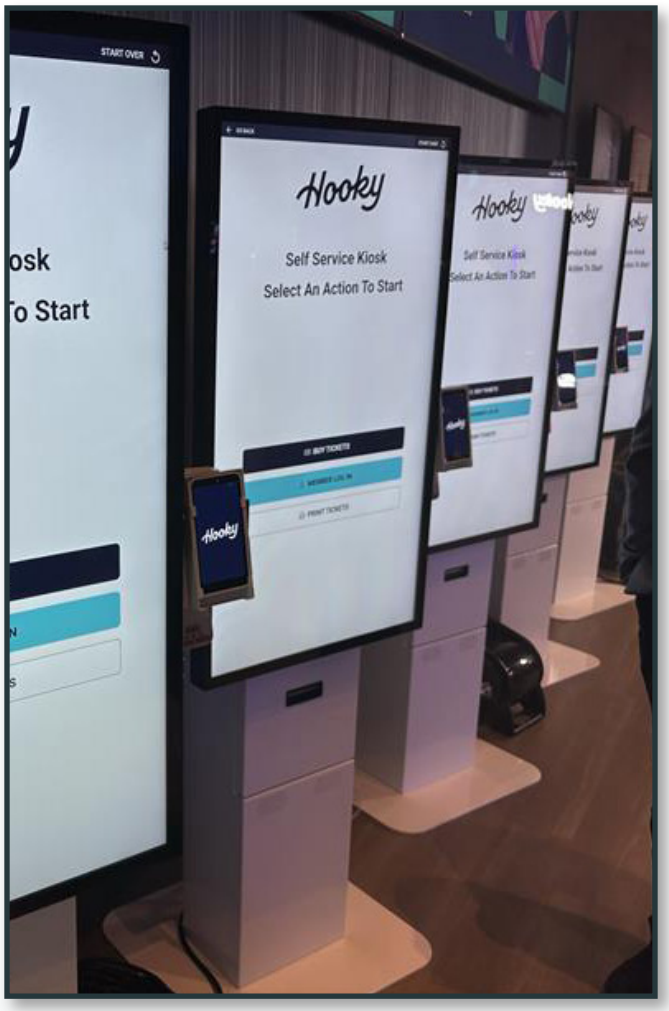
Warehousing and Logistics of Nationwide Deliveries

Behind every successful kiosk program is a logistical strategy that supports it. Assembly, kitting, and distribution are customized to your needs, so take time to plan what your deployment looks like.

Assembling all kiosks in a single run maximizes efficiency. Compared to producing smaller batches, this approach ensures kiosks are ready when your sites are. Often, manufacturing can outpace deployment, so building in full upfront enables a smoother, uninterrupted rollout.

Before being shipped, kiosks will need to be bundled, or kitted, with extra peripherals they need to function on site. This includes components like cables, payment scanners, mounts, signage, and more. This may also involve preloading each unit with software. Accuracy is important when kitting because some deployments require site-specific components versus standardized kits.

By preloading software and including all necessary hardware in a single carton, each kiosk arrives fully equipped and ready for installation, reducing the risk of missing parts or installation errors. Avoid piecemeal shipments which can cause on-site assembly confusion and hinder



install time. The more "plug-and-play" your kiosk arrives, the quicker it's up and running at its destination.

After assembly and staging, kiosks can be drop-shipped to their final destinations, warehoused and shipped as needed, or bulk shipped to distribution centers of your choice.

- **Drop-Shipping Kiosks**
  Best for brands that are ready to go live at all locations right away, drop-shipping eliminates the need for inventory management and warehousing. This method is ideal for fast, uniform rollouts across many locations.
- **Staggered Fulfillment**
  Warehousing is needed when brands roll out kiosks in stages. It supports a phased

deployment over weeks or months and offers flexibility if site readiness varies.

- **Bulk Shipping to Client Distribution Centers**
  For enterprise-level clients with established logistics networks, kiosks can be shipped in bulk to the brand's own facilities. This option reduces the number of shipments from the kiosk manufacturer, which can lower freight costs and give internal teams more control over distribution and timing.

Whether you're deploying across 50 sites or 500, a well-defined logistics strategy will minimize delays, reduce installation issues, and ensure your distribution stays on track.

Return Merchandise Authorization (RMA) Management

Reverse logistics refers to any movement of goods from the customer back to the manufacturer. In large-scale kiosk deployments, it's critical to plan for situations where units might arrive damaged or a kiosk requires a warranty-covered replacement part.

RMA management is the formal process of authorizing, tracking, and resolving these returns. At scale, even minor issues can quickly multiply. Just a 1 percent failure rate across 1,000 kiosks means 10 units may require servicing. What seems small at a low volume can become a major disruption without a structured approach.

An effective RMA agreement includes clearly defined warranty terms, return

conditions, pre-approved logistics, defined service timelines, and a system to track each case through resolution.

While many kiosk manufacturers start with a standard agreement, these can be easily tailored to include additional items such as an extended warranty or detailed procedures for unique return scenarios.

Warranties on Large-Scale Kiosk Deployments

In the kiosk world, downtime is costly. The type of warranty you choose plays a role in how quickly a unit gets back online.

The standard option is a **Return to Depot Warranty**, which extends the original part manufacturer's warranty to the end customer. If a part fails, the process is multi-step: the faulty component is sent to the manufacturer, who then forwards it to the original equipment manufacturer, and eventually it's repaired or replaced. While this warranty is included in all programs, the turnaround time can lead to delays.

An **Advance Exchange Warranty** (sometimes called Rapid Exchange) speeds up the process. This agreement ensures replacement parts are kept in stock and ready to ship immediately, allowing clients to hot swap broken hardware and minimize disruption. These warranties can also be bundled to include service agreements for additional support.

That said, not every organization needs this level of support. Companies that deploy hundreds of kiosks often have the internal resources to manage repairs. Many order spare parts, stock them in-house, and assign teams to service any hardware. This allows them to maximize kiosk uptime without relying on the manufacturer.

For companies with global operations, however, internal resources may be spread thin or inconsistent across areas. In those cases, the Advance Exchange model is appealing as it offloads inventory and service responsibilities to the kiosk manufacturer.

When deciding on a warranty, the right decision comes down to numerous factors, including how prepared your company is to handle in-house maintenance and inventory or if you prefer to employ the kiosk provider to do it.

Remote Monitoring for Your Kiosk Rollout

Once your kiosks hit the field, making sure every unit is working properly is a big task.

A system for remote monitoring is essential for large deployments because manual oversight is nearly impossible at scale. Field teams and store managers can't be relied upon to spot every issue that arises.

Remote monitoring provides visibility into the health and performance of every kiosk, flagging different issues like hardware failures, connectivity loss, and software crashes. As a result, this real-time monitoring allows you to quickly prioritize service calls, minimizing kiosk downtime.

Another advantage of remotely monitoring your fleet is it allows teams to monitor data and spot patterns. For instance, are components failing in specific environments? Is software causing performance dips? Do certain locations experience more problems? Even more, it can also give insight into regional trends to drive marketing and branding decisions. In short, analyzing kiosk performance doesn't just fix problems but can help prevent them, too.

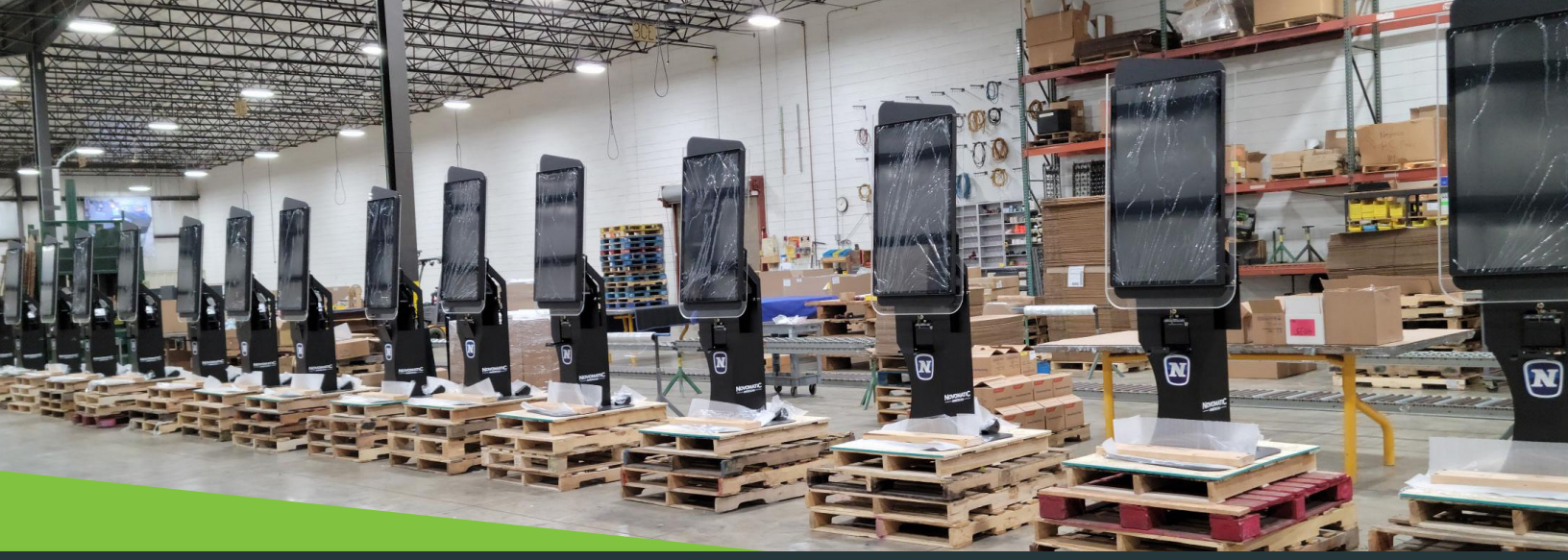
But what are your options when it comes to surveilling your kiosks? This depends on your needs.

Smaller programs or companies might rely on built-in tools from their kiosk software provider. Often, these platforms come with remote management features included that typically let you monitor uptime and errors, push updates or reboots, and more.

Midsize to enterprise-level companies may supplement with a third-party remote management platform that can offer more robust features and work across different operating systems.

And while most companies don't want to take on the overhead of a custom-built system, there are instances where larger enterprises with internal IT teams or specific data security needs may opt to build their own remote monitoring tools. Think tech giants or highly-regulated industries like healthcare or government.

For remotely monitoring large-scale kiosk programs, the right approach is the one that gives your team the oversight it needs without overcomplicating the process.



Conclusion

Rolling out kiosks at scale isn't just about getting hardware into the field, but about planning early for every step. From stakeholder alignment to modular engineering and remote monitoring, each stage of the process has ripple effects on performance, cost, and customer experience. The more deliberate your planning, the smoother your execution.

If you're looking for a partner who gets the big picture while also prioritizing the details, let's talk about your large-scale kiosk program needs. Learn more about our custom kiosk work or visit our partner site Midwest Assembly, Warehouse & Distribution to read up on the logistical services we offer.

FRANK MAYER - KIOSKS AND DISPLAYS

1975 Wisconsin Ave.
Grafton, WI 53024
262-377-4700 | info@frankmayer.com | www.frankmayer.com

FRANKMAYER
KIOSKS ■ DISPLAYS