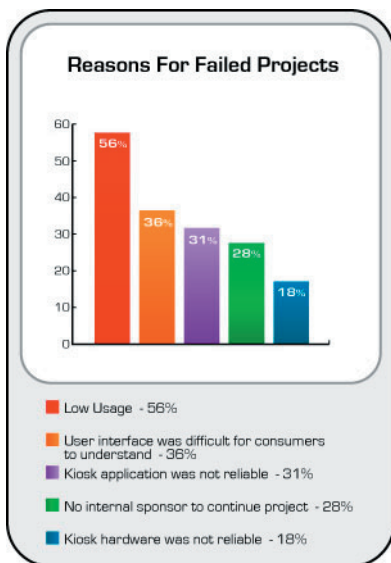


■ Remote Management And It's Impact To Your Bottom Line.

Executive Summary



When it comes to using self-service kiosks and other devices, consumer trends have changed. There is widespread acceptance and usage of many self-service programs. However, statistics show that many self-service deployments don't make it past the pilot stage. This whitepaper discusses how remote management technology plays a significant role in successful deployment of self-service devices.

Despite the current economy, the number of kiosks deployed every year is growing and there are many reasons to believe this trend will continue. Increased customer demand, growing demand from end-user businesses, and technological advances are all fueling the growth of kiosk applications and deployment.

Customers expect to find self-service capabilities almost everywhere, including:

- retail outlets and grocery stores (product promotions, self-checkout),
- banks (ATMs, account updates, product information),
- government offices (e-Government),
- airports (self-check-in, high-end vending machines),
- hospitals (patient check-in kiosks),
- hotels (check-out kiosks), and
- other locations (access to various products and services).

There are many remote management technologies available in the marketplace and this paper focuses on specific remote management capabilities that can improve the bottom line when managing self-service machines. It will discuss:

- a. the impact of remote management on specific departments,
- b. the specific capabilities that make the biggest impact, and
- c. real life uses of remote management.

What do successful deployers of self-service kiosks know that others don't? If you analyze research studies, the answer is clear – companies that successfully use remote management address the major factors that lead to project failure. However, many executives cut remote management to save costs. Ironically, by doing so they diminish the chance that their deployment will succeed.

Research shows proactive use of remote management technology is vital to successful self-service deployments. In addition, the use of remote management cuts the cost of IT infrastructure and service.

Gartner Research's Annual Kiosk Benchmark Study indicates that many self-service initiatives fail, or don't make it past a pilot. In Gartner's Annual Kiosk benchmark study, they reported that the reasons for failed projects are:

- Low Usage (56%),
- User interface was difficult for consumers to understand (36%),
- Kiosk application was not reliable (31%),
- Lack of sponsorship (28%), and
- Kiosk hardware was not reliable (19%).

Remote management tools are essential in mitigating these problems because remote management can directly address kiosk application reliability, hardware reliability, user interface, and usability concerns.

²Gartner Research, *5th Annual Kiosk Benchmark Study*.

³8th Annual Kiosk Benchmark Study, http://www.ncr.com/documents/kiosk_benchmark_study_8.pdf

Impact per Department

Software as a Service

Is it right for you?

Software as a Service (SaaS) is a new software delivery model and a new licensing model designed for those who want common capabilities, and don't want to burden their IT teams with the maintenance of yet another system. In contrast, larger organizations often need custom integration and control over network security. It's important to understand your requirements when considering a platform.

Esprida LiveControl is offered under a SaaS model. It means that Esprida hosts your Remote Management Server in a Tier 1 data center along with other clients. You have full access to all of the standard features; however your IT team doesn't have to worry about hardware reliability, network reliability, scale, load etc. Its headache and worry free!

Often, remote management platforms are viewed as IT-centric or service-centric systems. However, a successful remote management platform is extremely powerful when used by multiple departments within the organizations. A few examples are described below.

IT/Operations - 70% of IT budgets go to maintaining and supporting existing systems. A remote management platform that handles many back-office operations means there are fewer systems to manage and fewer firewall configurations to set up. Some providers offer hosted remote management applications and some offer remote management Software as a Service (SaaS). With SaaS deployment, IT departments do not have to expand infrastructure or support and update the self-service application.

Marketing - Self-service kiosks and devices provide yet another medium to send out new product messaging and gather customer feedback. Using manual methods, promotional changes are expensive to deploy and customer feedback surveys are difficult to aggregate and analyze. Remote management platforms provide a cost-effective way to deploy promotion, pricing, product and advertising updates automatically over the network. It can also be used to gather customer feedback on a daily basis.

Service - Most service teams are reactive and rely on customer complaints in order to create and resolve problem tickets. Remote management programs can foster a proactive service model.

The impact is dramatic. Using remote management, you can:

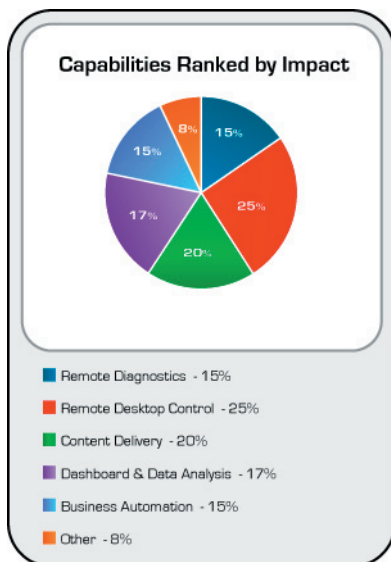
- diagnose and fix programs without dispatching technicians,
- address issues before customers have a chance to complain,
- fix many machines at once, and
- implement preventative maintenance to keep devices running.**

This results in a leaner, more efficient service team, improved productivity, greater kiosk uptime, and increased sales and customer satisfaction.

Executives - The remote management platform can automate the collection and analysis of customer data. Analytic features allow executives to monitor success metrics daily using real-time data. Informed decisions are easier to make because supporting data is readily available.

Customers - Remote management systems do not need to be IT focused. They can be used to deliver value to various department, kiosk customers and end users of self-service devices. Some companies have created high-value customer-trending subscriptions using data from the remote management platform. Many rely on the platform to deliver managed support services. Regardless of the project, deployers have successfully used remote management as a competitive differentiator and as a tool to strengthen business relationships.

Capabilities that Matter



There are many remote management platforms in the marketplace. Some provide remote automation utilities and others provide full-fledged platforms. It's important to understand which features and capabilities make a business difference.

Esprida conducted a survey to identify the remote management capabilities that have the largest impact on organizations. The survey ranked features based on the proportion of benefits derived directly from each.

Of the total benefits obtained from implementing a remote management system, 25% is derived from Remote Desktop Control, 15% from Remote Diagnostics, 20% from Content Delivery, 17% from Dashboards and Data Analysis, 15% from Tasks and Rules Automation, and 8% from other features.

Surprisingly, the most popular feature, remote desktop control, only contributes 25% of the total benefits. This is because remote management solutions are often thought of as IT-focused solutions; however, a true remote management system provides value to many parts of the organization.

Retailers' Security Concerns

In today's retail environment, IT security, and PCI compliance is of the utmost importance. It's important that your remote management platform is compliant with the relevant standards. All data must be encrypted, safe and protected - no exceptions. Use of network ports must be kept to a minimum to minimize network vulnerabilities.

Change control needs to be managed on every self-service device. Whether a new application update or an OS patch, it all has to be audit-logged, secure, and authorized.

Real Life Uses of Remote Management

Situation:

Resolution:

Remote Desktop Control - Remote desktop tools like Citrix and LogMeIn allow technicians to remotely diagnose a problem without the hefty costs of traveling to each location. However, such tools only provide 25% of the benefits because one-to-one remote desktop control only allows technicians to work with one kiosk at a time. It's more efficient to use a remote management system that allows for the rolling out of preventative rules, patches and other updates to many machines.

Remote Diagnostics - Survey respondents reported that constantly knowing the working state of all kiosks helps keep the service team focused and organized. The ability to run ad-hoc tasks to diagnose and fix many kiosks at once makes the team very efficient.

Content Delivery - Software is constantly changing. There is a constant stream of anti-virus updates and OS patches. Marketing promotions, product and pricing information also need to be updated. One manager said, "It's simply too expensive to send technicians to upgrade software all the time." That is what occurs without remote management. The ability to update content cuts costs and enables frequent application updates that previously were not feasible. Monthly, weekly promotional pricing updates are impractical when managing hundreds of kiosks manually. The remote management platform makes it possible.

Dashboards & Data Analysis - Survey participants indicated that although data analysis didn't directly save costs, dashboards are an efficient way of monitoring the success of a project. Marketing and executive sponsors use dashboards to gain insight into customer behavior and to make decisions about the program. Respondents also indicated that retailers are more sensitive to data security standards like PCI compliance; it is imperative data transfer mechanisms are compliant with security standards.

Task & Rules Automation - Participants said many tasks become routine over time; automation capabilities eliminate the mundane. Some errors are always escalated; some errors are always fixed the same way; some reports are always generated on Mondays. It is important that a remote management platform allows users to automate routine operations and save valuable time.

The survey demonstrated that a full complement of integrated features is required to deliver maximum benefit to many parts of the organization and have a positive impact on the bottom line. Since this program has to be maintained over time, a platform-based approach is more effective in the long run as compared to homegrown tools and a variety of remote desktop utilities.

Below are concrete examples of how remote management has made a difference. This section compares how things were handled before and after the implementation of remote management. All situations refer to kiosks deployed in many retail stores.

A store employee notices that a kiosk randomly stops working after a power failure.

Without Remote Management

A customer attempts to use the kiosk, but gets frustrated and leaves. After several days, a store employee notices that the screen is frozen and calls the 800 support line. The support rep asks the employee to reboot the machine but it doesn't help. Instead, he tapes an "Out of Order" sign to the kiosk, and waits for a technician to come and fix the problem. The technician troubleshoots the machine and can't figure it out. He removes the PC for further investigation, and returns the next day with a replacement PC. After further investigation, the technician notices that important configuration files are corrupted. It's not clear why this occurred, it might have been a result of random power failures or abrupt program termination.

With Remote Management

(First Occurrence): The remote management system detects a software application failure, and automatically emails the support team. A support engineer remotely connects to the kiosk, diagnoses the problem, and remotely resets the configuration files.
(Several Occurrences later): The support technician writes scripts to automatically detect such failures, notify the help desk, and restore configuration files from previous backup. Using content delivery features, the support technician sends his update to all kiosks, and the system handles all similar random failure scenarios in the future.

Situation:

A kiosk fails to produce a receipt after a customer transaction.

Resolution:

Without Remote Management

A customer completed a transaction and didn't get a receipt. Having heard of recent credit card scams, the customer is furious about the credit card receipt and speaks with the store manager. The store manager apologizes provides a receipt, and asks an employee to refill the paper in the kiosk before more customers complain.

With Remote Management

The remote management system detects the receipt printer is low on paper and automatically emails the store manager. The store manager asks an employee to refill the paper in the kiosk before they receive any customer complaints.

Situation:

Marketing wants to promote a new product on the kiosks and advertising displays.

Resolution:

Without Remote Management

Marketing prepares new interactive ads and cross-selling rules. A product manager asks the support team to update all kiosks with new advertising files, up-selling rules, and product pricing. CDs are printed and sent to technicians who individually visit every store and perform the upgrade.

With Remote Management

Marketing prepares new interactive ads and cross-selling rules. A product manager asks the support team to update all kiosks with new advertising files, up-selling rules, and product pricing. The promotional update is uploaded to the remote management system. A support engineer schedules the content delivery. The remote management system transfers and installs new software to all kiosks, thereby eliminating many service calls.

Situation:

Executive wants to know if consumers are using the kiosk, and which products are popular.

Resolution:

Without Remote Management

The marketing team analyzes website traffic that originated from kiosk IP addresses. After reviewing web statistics, a marketing coordinator produces a 'Product Traction' report that displays the total number of consumers that have used the kiosks, the product in which they demonstrated interest, and the number of product purchases. Due to the nature of available data, the marketing coordinator can't provide geographical breakdown.

With Remote Management

The executive logs into the remote management server and views the 'Product Traction' report. After reviewing the report, he notices that consumers show interest in a product but make very few purchases. He realizes that it's worthwhile to have the application team change the kiosk software to provide a greater incentive for users to use the "buy now" and "customer survey" features more often.

Situation:

The intrusion detection system identifies suspicious activity on the store network, and the IT manager suspects third party kiosks.

Resolution:

Without Remote Management

The support team sends a technician to the selected kiosks to backup the windows and application logs and make an inventory of what software is installed on the machine. The support team reviews the data and realizes that virus updates are out of date. They dispatch another technician to run antivirus patches. The support team compiles a report for the retailer's IT department.

With Remote Management

The retailer IT manager has an account on the remote management system; he prints a report that shows all software packages on the specified kiosks including installation dates of antivirus updates. The IT manager has a high level of confidence because he has direct visibility and control. He can monitor logs and search for peculiar behavior without having to go through the support team.

The Bottom Line

To successfully deploy and manage self-service kiosks and devices, remote management technology is essential. Rather than using a pure IT centric-approach, allowing many departments to use the remote management platform provides greater value to the whole organization. Marketing reduces logistic costs related to content delivery and gathering reports. Executives save on costs required to gather important data. Customers, who have subscribed to the management system, receive a product differentiator and gain better consumer insight. IT remotely monitors and updates kiosks. Service teams reduce site visits using remote automation and desktop control. IT reduces labor by fixing a problem once and propagating the fix across all self-service machines. The consumer sees updated product and pricing information and marketing messages.

In short, having a remotely managed holistic view has helped pilot projects become fully deployed projects and it has helped small deployments overcome challenges and grow into large deployments.

Esprida's experiences with large, successful self-service rollouts demonstrates that a unified remote management platform with integrated capabilities is a more effective approach than using manual systems or limited or multiple remote management tools. It becomes difficult, if not impossible to manually maintain a modest kiosk deployment. It is expensive and inefficient to monitor, maintain, synchronize, and update systems when using limited or multiple remote management tools.

Integrated, hosted and SaaS remote management applications enable companies to move past the self-service deployment pilot stage and successfully rollout and manage self-service devices that meet increased customer demand and growing demand from end-user businesses.

Author Profile:

Asad Jobanputra (asadj@esprida.com) is the Director of Application Solutions at Esprida Corporation. He has worked in the self-service industry since 1999, and has been involved in global deployments of remote management technology in Australia, Canada, Iceland, Italy, Norway and USA. His experience has provided value to Kodak's fleet of retail kiosks and minilabs - the world's largest deployment of self-service equipment.



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