

NEC® Retail Client Manager



This comprehensive guide will aid you in selling solutions for customer touchpoints



NEC® RCM can handle virtually any content in any format: video, photos, slides, text, animated graphics and much more.

Executive Summary

This comprehensive guide will aid you in selling solutions for customer touchpoints—digital signs, point-of-sale (POS) solutions, vending machines, kiosks, etc.—that incorporate the NEC® Retail Client Manager (NEC® RCM). Inside you will find an overview of NEC® RCM, the value it provides in remotely supporting digital touchpoints, managing the content on them and providing audience analytics. This document is appropriate for:

- System integrators
- OEMs
- Channel resellers, system builders and VARs
- Ingredient suppliers

Introduction: The New World of Consumer Touchpoints

In the past, when people talked about consumer “touchpoints” they were referring to a limited number of actual physical locations such as the checkout counter in a store or the registration/concierge area at a hotel.

Then came the Intelligent systems revolution and new technologies for digital signs, kiosks, point-of-sale, ATMs, vending machines, Intelligent shelf labels and more.

Suddenly, the number of touchpoints—locations where a business has the opportunity to engage a customer, convey information and hopefully create a sale—has increased exponentially. Essentially any location that can be equipped with connected NECIgence via a processor and display screen can be a touchpoint. Even a small retailer could have dozens of touchpoints. A large retailer could have tens of thousands.

To make the most of these touchpoints: be able to remotely support them, manage the content that appears on them and improve their effectiveness through audience analytics.

- A local coffee shop needs to inform customers about a change in operating hours and wants messages appearing on signs and at the POS.
- A sporting goods retailer, looking to highlight a new line of shoes designed for teenage boys, wants to show marketing messages wherever those customers gather in the store and measure how effective different messages are in driving sales.
- A university wants to improve its emergency procedures through a digital signage network. It needs to have a system in place to ensure that the signs are running at all times.

For these and other applications to be successful, a solution is needed to remotely support all of these touchpoints, manage the content and provide audience analytics. That’s the purpose of NEC® Retail Client Manager.

Table of Contents

Executive Summary. 1

Introduction: The New World of
Consumer Touchpoints. 1-2

The NEC® Retail Client Manager (RCM):
Setting the Standard. 2-3

What Is NEC® Retail Client
Manager. 3

NEC® RCM Features and
Capabilities. 4-5

Ten Content Strategies. 6-7

Managing Content in Vertical
NEC® RCM and the Competition . . . 8

Why an NEC-based Solution. . . 9

NEC® RCM can handle virtually any content in any format: video, photos, slides, text, animated graphics and much more. It relies on a familiar interface (designed for the non-technical user), providing a whole range of features for choosing content and scheduling when and where it will appear, as well capabilities for remote management (via its Remote Control capabilities) and gathering audience analytics (via Audience Analytics).

For today’s reseller, NEC® RCM offers significant opportunities to enhance the performance of digital touchpoints—helping you maximize the value you provide to your customers and also build long term relationships that can include providing ongoing content creation and management services.

NEC® RCM is a platform designed to evolve as the world of Intelligent touchpoints grows and evolves. As they become more pervasive, the requirements for managing, securing and delivering content to them will increase. By providing robust content management capabilities, remote management, security and analytics, NEC® RCM is an ongoing solution you can rely on to build solutions for the changing world of marketing and customer experience. Rely on this guide to get you started. And remember:

Be prepared to educate: Your customers may not appreciate the importance of content management, remote management, security and analytics. You may need to spend time educating them on its importance, as well as the specific advantages of NEC® RCM.

Know your decision maker: The value that NEC® RCM delivers is going to mean different things to different people. You may be selling to the owner of a company, the head of sales/marketing, the CFO—or one person who does all three. IT may or may not be involved. Be prepared to tailor your sales presentation to different hot buttons.

Be prepared to talk value: Delivering content management, remote management, security and analytics is critical to increasing sales, enhancing customer experiences, turning inventory faster and much more. Be prepared to talk value and bottom line impact.

NEC® Retail Client Manager (NEC® RCM): Setting the Standard

Digital signs and other digital touchpoints reach large audiences and offer a great deal of flexibility in displaying content.

- **Audience:** By 2015, NEC predicts there will be 22 million digital signs installed worldwide.
- **Flexibility:** Instead of displaying one image for extended periods—the way traditional printed posters and signs would—a digital sign can change imagery as often as you like.

NEC® RCM maximizes the reach and flexibility of today’s digital touchpoints.

The right capabilities: NEC® RCM is designed to address the most important challenges in content management: organizing the content and displaying it reliably and securely in the right place, at the right time to the right audience.

A long-term solution and robust platform: Backed by NEC, NEC® RCM goes beyond just “content management.” By also providing remote management, security and analytics, NEC® RCM establishes a comprehensive platform that customers and resellers can invest in, knowing it will be available for as long as they need it, helping to address ongoing challenges in marketing and customer experience. NEC continually invests in enhancing the ability of NEC® RCM to address critical challenges in marketing and customer experience, and integrate seamlessly with other NEC solutions.

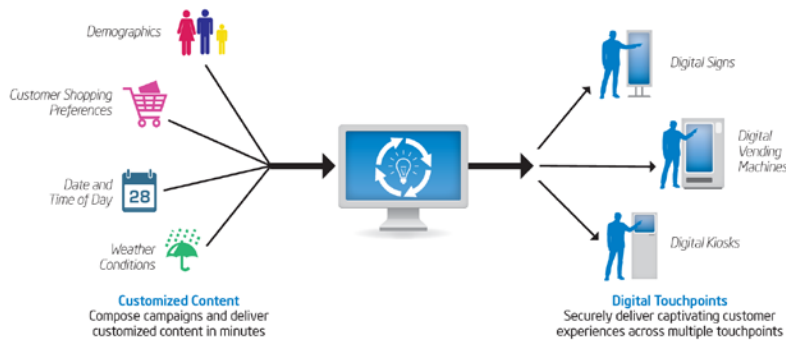


Figure 1. Using NEC Retail Client Manager, operators can schedule and launch strategic and relevant marketing campaigns for audiences, when they need it most, in real time, from anywhere. Content and scheduling can easily be adjusted based on weather conditions, shopper preferences, audience demographics, and more.

Industry standard: Because NEC® RCM is optimized to run on NEC platforms—which are in wide use across the key markets in retail, hospitality, education and more—customers and resellers can be confident in the ongoing availability of a robust ecosystem of application and development support.

Cost-effectiveness: NEC® RCM is cost-effective, creating a predictable and manageable cost for the customer and a steady revenue stream and source of ongoing engagement for the reseller. NEC RCM has also been shown to reduce costs: the ability to control entire fleets of digital touch points remotely reduces downtime and support costs, saving an estimated \$400 per device, per year. (Estimate provided by Global Retail Insights, an IDC Company.)

What Is NEC® Retail Client Manager

Today any connected device that can be equipped with a screen can become a customer touchpoint. Digital signs, kiosks, POS systems, ATMs, vending machines, shelf labels, menu boards, gas pumps—they are all part of the new world of digital customer touchpoints. The content displayed at these touchpoints can take the form of:

- Announcements
- Sales promotions
- Branding messages
- Advertisements— including paid advertising
- Product information
- Directions/wayfinding
- Public safety information
- Schedules
- Menu selections

The possibilities for content are essentially unlimited.

Given all of the different kinds of content that are possible—and the many touchpoints that can exist in even the smallest business—creating and managing content is extremely important today. Businesses need to be sure they are showing the right content to the right person at the right time.

NEC® RCM At-a-Glance

NEC® Retail Client Manager addresses the critical challenges of managing and delivering content:

- Providing metrics via Audience Analytics on the audience that actually viewed the content (critical for advertising and business ROI analysis)
- Managing, maintaining and securing devices remotely via Remote Control— reducing or eliminating truck rolls
- Cost savings: eliminating/ reducing costs for printing and onsite management
- Managing the wide range of content that now comes in digital formats; NEC® RCM supports standard definition to 4K content, including video, animated graphics, slides, photos and much more
- Scheduling when content will appear, in what order, on what screen and for what audience
- Categorizing and filtering display screens based on their location, audience or other business data/metrics
- Simplifying localization with support for multiple languages; including English, Spanish, Japanese, Russian, Simplified Chinese, German and Portuguese
- Enabling touchpoints to adapt in near real time to changing circumstances, such as variations in foot traffic, demographic patterns (for example, women shoppers in the morning, male shoppers in the evening) or the weather
- Removing dated content
- Managing security and permissions to ensure that only authorized content is shown.
- Making it possible for all of this to be done by non-technical, non-IT personnel

NEC® Retail Client Manager

NEC® RCM Features and Capabilities

NEC® RCM Features and Capabilities

System Requirements

NEC® RCM can run on any system with Windows 7/8/8.1/10 and Android.

Usability

NEC® RCM is designed for people without technical backgrounds—managing content is not dependent on the IT department. An employee without technical background can use NEC® RCM to easily and securely manage content on any number of devices. Alternatively, a reseller can provide this capability as a service.

Scalability

NEC® RCM is as appropriate for the single, small business with just one or two touchpoints as it is for a large retail, restaurant or hospitality organization that has thousands of digital touchpoints operating nationally or internationally. NEC® RCM makes it possible to control these touchpoints remotely—both the content, management and maintenance.

Content

With NEC® RCM, it's possible to create nearly any kind of content in any format:

Campaigns

NEC® RCM is primarily designed to make it easy to publish the right content at the right time in the right place. To do that, NEC® RCM is organized around campaigns. Simply identify content—slides, photos, video, etc.—then tell NEC® RCM when it should appear and on which screens/locations in the network. Those three decisions are all it takes to create a campaign and get started.

Choosing Audiences

To simplify decisions about where content will appear, NEC® RCM makes it easy to categorize and filter different locations/screens in a network using metrics such as audience size, demographics or business-related data (e.g., products on sales). For example, this makes it possible to categorize end points that are viewed by more men than women, by a younger demographic versus an older one or where a specific product or service is being offered. Campaigns can be organized to target a single screen, a group of screens (e.g., in a specific store or aisle in a store) or selected screens at a wide range of locations.

Screen Zones

With NEC® RCM, it's easy to divide a screen into one or more zones, each one with its own playlist. Once you've designed how you want the screen to appear, you can simply drag and drop media items onto the individual zones. Show video on one zone, advertising on another and a website on a third.

Scheduling Content

NEC® RCM can be used to schedule the specific times that content will appear. Set start and finish options or use the scheduling engine to create more involved playlist patterns.

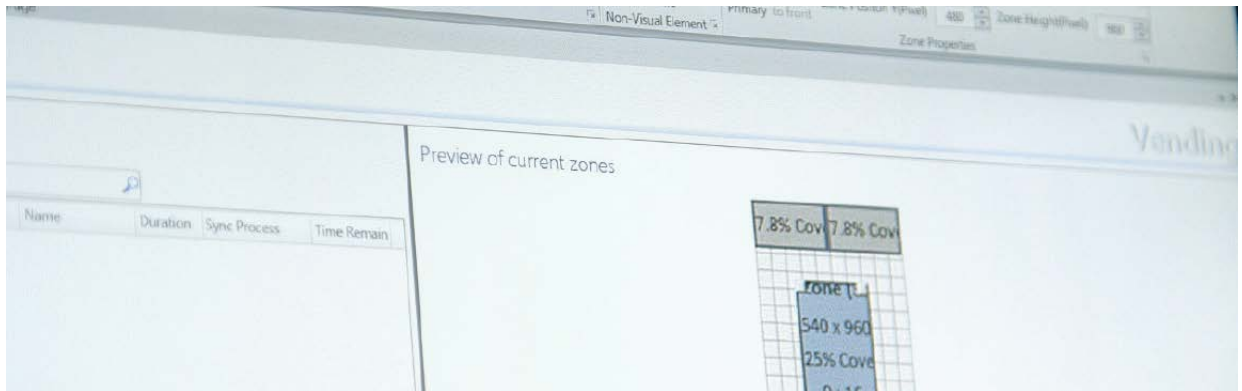
Content schedules can also be varied by taking advantage of:

- **Tickers and RSS feeds:** Tickers (feeds or rotating messages) are a great way to add vitality to content. Users can choose from an established RSS feed or create their own. Choose when and where it is to be displayed and click publish!
- **Pop-ups:** Pop-ups make it possible to show advertisements or make an announcement while a scheduled campaign plays in the background.
- **Pools:** NEC® RCM makes it possible to create media pools—collections of related content (e.g., fun facts, interesting selling points)—that can be scheduled to appear at specific times. When the appropriate time slot arrives, an item is drawn at random from the pool.

Interactivity

NEC® RCM supports interactivity through the use of “triggers” that allow the immediate interruption of one campaign with another in response to an event. An event might be a customer using a touch screen to request specific information. Another trigger might be data from sensors/cameras that can detect the gender/age of a viewer and adapt the content accordingly.

FILE TYPE	FILE FORMAT
All standard images	*.BMP;*.JPG;*.GIF;*.JPEG;*.PNG
Shockwave/Flash installation.	*.SWF;*.FLV - Note: May require additional software
RSS feeds	
XML	
Web pages	*.HTML;*.HTM;*.MHT
Video files	*.MPEG;*.AVI;*.ASF;*.ASX;*.WMV;*.MPG;*.MP4;*.MOV;*.MKV;*.M4V;*.M2V;*.3G2;*.3GP;*.MTS
Microsoft PowerPoint* files	*.PPT;*.PPTX - Note: Must be converted to either WMV or PNG via PowerPoint.
Video Streaming	RTMP; RTP; RTSP; HTML; HTTP



Screen zones in NEC® RCM allow users to drag and drop media items onto the individual zones.

Performance Management

NEC® RCM is designed with features to maximize performance of systems in the network:

- Networks that publish large media files can take advantage of load balancing techniques to share loads between servers—a better solution than FTP servers or direct communication over TCP.
- NEC® RCM can reduce bandwidth and server load through a feature called NodeServer. NodeServer acts like a proxy server for a group of locally connected players, ensuring that no redundant downloads are made. Sharing files from a single request among unlimited connected players is possible.

System Management

NEC® RCM is designed with features to analyze performance of the system:

- View a complete history of the system with one click. Keep up to date from across the road or across the world.
- NEC® RCM maintains audit trails for all activity, showing who did what and when.
- NEC® RCM is XML-driven, allowing easy export to reporting platforms and relational databases.

Securing Touchpoints

Multiple users can be set up to manage each and every campaign, with specific tasks assigned to different users. Built-in administrative controls over what features each user may or may not use help to secure and formalize workflows.

A network is still secure even if unauthorized users gain access to the PC. Triple DES encryption, a technique often utilized by banks and governments, is designed to make communications indecipherable to hackers.

Remote Management

NEC® RCM provides the tools needed to keep touchpoints up, running, and effective, minimizing downtime and enabling the ability to:

- Remotely detect, diagnose and repair problems quickly and cost-effectively, even if the operating system is down
- Remotely power up or power down systems to coincide with location operating hours
- Remotely install software updates and security patches

Shopper Intelligence: NEC® RCM can

be used to anonymously gauge the effectiveness of content by measuring how much time people spend looking at displays. This allows businesses to tailor content based on audience behavior and characteristics, helping to display the most appropriate message to the right person or group of people. This makes it possible to obtain data on a number of key metrics, including:

- The number of viewers at every sign in real time
 - Viewer demographics (e.g., age range and gender)
 - Dwell time and average view time, including by gender, age, and time of day
- Screen zones in NEC® RCM allow users to drag and drop media items onto the individual zones.



While the vast majority of screens at digital touchpoints are used for internal branding, promotion or informational purposes (the content displayed is relevant only to that specific location), advertising is also growing.

Ten Content Strategies

NEC® RCM is designed to handle virtually any form of digital content—video, animations, simple slides.

The bigger question is, what’s the goal of showing the content? What objective is to be accomplished? Here are ten typical content strategies. Your client may be interested in just one—or possibly all of them. But the most important thing is to have one.

Having a content strategy is critical to ensuring the return on investment (ROI) in digital touchpoints.

1. Sales Promotion

Using digital signage and other touchpoints to make people more aware of products and services is a proven way to increase sales. A retailer or other business can promote a range of products and services, changing the content by the minute, the hour, the day or in response

to the weather, demographic patterns or variations in foot traffic. Digital touchpoints can be linked with inventory systems—for example, to make it possible for a food store to automatically display updated pricing on signs or shelf labels for products that are reaching their expiration date.

2. Providing Information

Providing visitors/consumers with information for specific locations, events, etc., is another proven content strategy. Many hotels use digital signs as a guide to the daily schedule of meetings, events, services and amenities. The information can help drive more business—or it could simply be an extension of the mission of the business or organization: a local sporting goods store providing updates on local school teams, a banquet hall showing photos of recent proms, a medical clinic providing health advice, or a religious organization providing a schedule of services and readings.

3. Wayfinding

Helping people find their way from Point A to Point B is an ideal usage scenario for signs, kiosks and other digital touchpoints. The information can be presented in a static image or take advantage of interactive capabilities to help visitors map their route and also find related attractions and services.

4. Schedules

Providing up-to-date information on meeting times, arrivals/departures, program schedules and much more makes better sense than printing or (worse) handwriting the material.

5. Advertising

While the vast majority of screens at digital touchpoints are used for internal branding, promotion or informational purposes (the content displayed is relevant only to that specific location), advertising is also growing. Businesses will pay to place ads for their products or services on digital signs, just as they will pay to advertise on TV, the radio or the Internet. For the owner of the location where the screens appear, accepting

third-party advertising can be an added source of revenue. This type of advertising, on digital signage networks is often referred to as “placed-based media” or “digital out-of-home media.”

6. Ambience/Entertainment

Businesses as diverse as a bank, medical clinic or auto repair shop may want to use digital signs and other touchpoints to provide an entertaining/informative distraction that creates a more customer-friendly atmosphere and also reduces perceived wait times.

7. Menu Boards

Quick-service restaurants have been active in adopting a very specific kind of digital sign—menu boards—enabling customers to easily see menu offerings, learn about special promotions, view nutritional information (increasingly a compliance issue) and more. Having all of this available digitally makes it easy to update, show different offerings at different hours or days (known as “day parting”) and increase sales by cross-selling and upselling—all while eliminating printing costs and delays.

8. Electronic Shelf Labels

Grocery stores have been leaders in adopting electronic shelf labels: small screens that attach to the front edge of the shelf and can be automatically updated whenever a product price is changed, reducing the time and resources devoted to managing this task and improving pricing accuracy.

9. Internal Communications

The audience for digital signage does not always have to be external (i.e., shoppers, guests). Digital signs also have a role to play in internal communications: programming signs to display routine start-up and close-down instructions for the beginning and end of each day, or providing video-based training at appropriate times on new products.

10. Public Safety

Digital signs play a role in public communications and alerts—e.g., sounding fire alarms and providing evacuation instructions or helping to locate missing children.



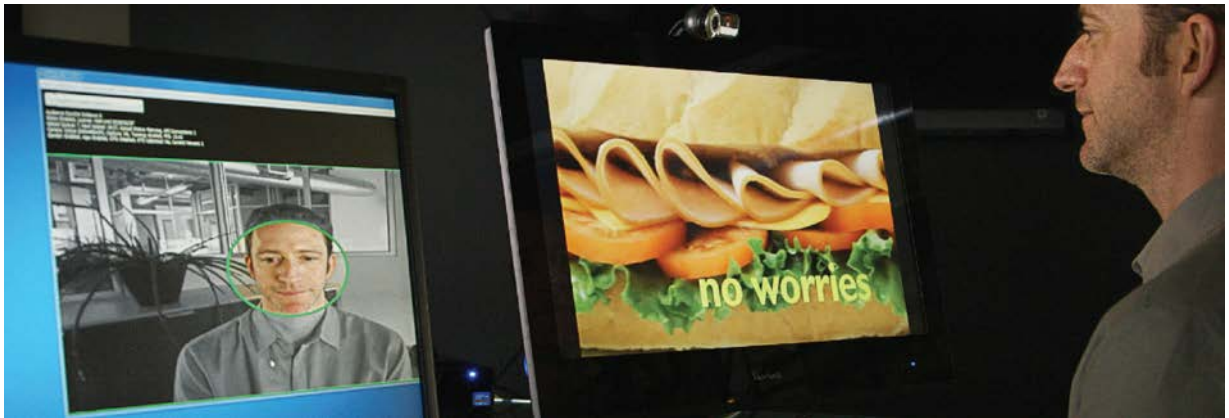


Figure 3. NEC® RCM can be used to tailor content based on audience behavior and characteristics.

NEC® RCM and the Competition

There are hundreds of companies that provide content management software. Some of the top names include BrightSign, BroadSign, Nexus (Cisco), Scala and SignageLive. These companies are established in a wide range of vertical markets (i.e., retail, transportation, hospitality). And there are hundreds of other smaller providers that focus on just one or two niche markets.

It is likely you will encounter these competitive systems in your marketing and sales efforts. It is important not to get drawn into a feature-by-feature comparison of NEC® RCM and other solutions. While customers may ask for this, it only ends up adding confusion and unnecessary detail that ultimately is of little help in making the right decision.

If customers ask for a specific competitive evaluation, address the request by (1) trying to focus the discussion on the customer's objectives and the features of NEC® RCM that are most important to achieving those objectives and (2) positioning the key selling points of NEC® RCM:

The right capabilities: NEC® RCM is designed to address the most critical challenges in content management: organizing the content and displaying it reliably and securely in the right place, at the right time to the right audience.

A long-term solution, a robust platform: Backed by NEC, NEC® RCM goes beyond just "content management." Through integration with NEC solutions for remote management, security and audience analytics, NEC® RCM establishes a comprehensive platform that customers and resellers can invest in, knowing it will be available to address ongoing challenges in marketing and customer experience. NEC will continually invest in enhancing the ability of NEC® RCM to address critical challenges in marketing and customer experience, and integrate seamlessly with other NEC solutions.

Industry standard: Because NEC® RCM is optimized to run on NEC platforms—which are in wide use across the key markets in retail, hospitality, education and more—customers and resellers can be confident in the ongoing availability of a robust ecosystem of application and development support.

Also, keep in mind these differentiators:

Easy, intuitive user interface: NEC® RCM was designed with the non-technical user in mind and will be familiar to anyone who is experienced with widely available desktop software programs. Many of the established competitors have complex, proprietary interfaces that require a significant learning curve.

User level permissions: NEC® RCM makes it easy to assign specific tasks to different users. Built-in administrative controls over what features each user may or may not use help to secure and formalize workflows. Many of the established competitors lack this fine-grained administrative control.

Scalability: NEC® RCM can scale from one touchpoint to thousands, making it as appropriate for the single, small business as it is for a large retail, restaurant or hospitality organization. Many of the competitors are primarily designed for much larger or much smaller organizations, not both.

Why an Windows-based Solution

SMBs are looking for solutions that are consistent with their vision of the future of customer interaction and that are easy to deploy, manage and maintain. They need solutions that offer flexibility now and for the future to accommodate growth and scale. NEC's mission is to solve this problem, supporting the delivery of flexible, scalable technology solutions.

NEC architecture supports seamless integration of all processes and applications across the entire SMB enterprise. The common hardware platform offers unprecedented scalability to enable everything from the smallest digital sign to a sophisticated backend inventory management infrastructure. SMBs do not want to be bogged down integrating proprietary systems and point solutions that may or may not work together. NEC eliminates that issue.

All NEC processors today use a multicore architecture and offer a common language environment that enables developers to easily integrate systems with existing infrastructure—leading to a complete solution with little design hassle. The ability to port applications across all NEC chips provides the flexibility to seamlessly integrate devices, applications and processes. The time and money saved in implementing NEC-based solutions can be significant. And NEC is ready with solutions designed to be managed and secured at the highest levels.

In other words, NEC architecture provides the values needed to solve the biggest challenges facing SMBs today. When deployed inside all devices and infrastructure, NEC architecture delivers the platform necessary to build the integrated experiences that enhance customer service, reduce costs and increase sales.

Technologies Supporting NEC's Value Proposition

The Intel® Intelligent Systems Framework (Intel® ISF) provides a common solution framework for easily connecting, managing and securing devices, specifying key ingredients that can be flexibly combined, including:

- Intel processor platforms (including Intel® Atom™, Intel® Core™ and Intel® Xeon®) and related technology like Intel® vPro™ and Intel® TXT, as well as a range of I/O for flexible communications
- OSs including Microsoft Windows, Wind River® Linux, and Wind River® VxWorks®
- Security including McAfee Embedded Control and McAfee Deep Defender
- Remote manageability capabilities that support third-party management consoles

Beyond that, NEC has introduced a number of technologies specifically designed to help SMBs (as well as larger organizations) implement solutions used across digital signage, digital security and surveillance, point of sale and storage, and back office networking:

Remote Control: Compared to sending someone onsite, remote management saves cost and time. You can monitor and control every device on your network, collecting and cross-checking the information that will deliver both an understanding of overall network performance and specific issues related to individual equipment failure. For many technology providers, providing remote management for digital signage networks offers an opportunity to earn significant revenues for a value-added service.

Through its Remote Control capabilities, NEC® RCM makes it possible to discover, repair and protect networked visual retail solutions. Components can be diagnosed and repaired remotely, ultimately lowering IT support costs. Signs can be powered up and down to save energy.

Intel® HD Graphics: Graphics processing is essential to the success of any digital signage solution. Second-generation Intel® Core™ processors have an integrated graphics processor that gives the platform the extra thrust needed for rendering video and animated graphics at the highest possible level, while also handling other tasks such as viewer analytics. Intel® Iris™ graphics, together with the 4th-generation Intel® Core™ processor, significantly improves the performance of the previous generation of Intel graphics, delivering capabilities resulting in faster rendering and more complex shading.

Audience Analytics: Attaching a sensor—even a consumer-grade webcam—to a sign and leveraging NEC RCM's Audience Analytics capabilities is all it takes for any SMB to begin gathering sophisticated anonymous viewer analytics.

PCI-compliance authentication: SMBs need to ensure that the PCI (Payment Card Industry) security technology solutions they choose adequately protect their customers' sensitive credit card information. Any digital signage solution implemented in a retail environment that accepts credit card data (e.g., an interactive kiosk) needs to be PCI compliant. NEC provides the industry's only in-line security gateway broker that applies data protection through tokenization for data sent to back-end applications. The use of a proxy minimizes application changes by performing data protection on the application payload rather than coded in to the application itself. The broker sits between incoming sensitive data and communicates with back-end systems over standard protocols. It protects data on the wire before it hits the application architecture and acts as a central point for decryption and de-tokenization.

Attractive and informative displaying

Glamorously displayed animations and still images on LCD and PDP fascinate people. A screen divided into panes can display simultaneously both eye-catching entertaining content and product/service information. Moreover, multi-panel displaying allows for more dynamic, impressive, and efficient playback.

Supports various kinds of content types

No special tools are required to create signage materials. Digital Signage supports common file formats so that you can create content with standard tools such as HTML editors, Microsoft PowerPoint, and Macromedia Flash. You can even make use of your existing files immediately after the Digital Signage system is installed.

Supported file types HTML, PowerPoint, Shockwave, Flash, bmp, jpg, gif, png, MPEG, WMF (Windows Media Format), Video files, RealMedia files, and others.

Manages schedules closely

You can easily create and edit detailed schedules remotely. Minimum duration for one piece of content is five seconds. A set of combined content files (up to 100 files) called "program" can be registered to a system and scheduled up to next six months (maximum 50). Schedules can be edited in real time so that you can send interruptive data such as emergency and flash news to the panels. Rich editing features including copying items by content or program unit are supported.

Used in various environments

Digital Signage can be used in a network where TCP/IP communication is available such as wired/wireless LAN or VPN environment, as well as in a remote access service network environment using public line dialup (mobile phone). In addition, even if you are unable to provide a communication environment, it is possible to run Digital Signage in an off-line environment by using USB memory. Digital Signage provides various operations according to your network environment.

Note:

Digital Signage is a trademark of NEC Soft, Ltd. in China, Hong Kong, Korea, Taiwan, Thailand, Singapore, Malaysia, Vietnam, Australia, New Zealand and Japan.

This product can be purchased only in China, Hong Kong, Korea, Taiwan, Thailand, Singapore, Malaysia, Vietnam, Australia, New Zealand and Japan.

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