

# VSP-NS7 Application Notes



Doing more with Sony's HD digital signage player.



**HDNA**  
High Definition. It's in our DNA.

## Performance that persuades. Applications that amaze.

Digital signage is the choice of more and more retailers, restaurants, sports facilities, transit hubs, shopping malls and college campuses. Digital signage has become so popular because it enables marketers and facility operators to distribute branding messages, information and entertainment – all at the click of a mouse.

But even in the world of advanced digital signage, Sony's VSP-NS7 player stands out. It's collecting awards, winning praise, attracting integrators and pleasing customers by combining in-the-box performance and beyond-the-box flexibility.

The long list of VSP-NS7 built-in features starts with the ability to output five simultaneous layers of content, plus audio. Equally important is the ability to receive content over the network and to integrate with touch screens, web content, GPI triggers, FeliCa® card readers, third-party products and the Picture-In-Picture function of selected Sony public displays. Thanks to these features, the applications are incredible.

The VSP-NS7 can perform so many applications for so many types of customers that Sony has assembled these Application Notes. But by the time you read these words, some enterprising integrator will have created yet another VSP-NS7 application we hadn't anticipated. And this list will be incomplete.

- Networked HD
- Emergency Broadcast
- Interactive Touch Screen
- GPI
- Picture-in-Picture
- FeliCa® Card

## VSP-NS7 Features

- Content distribution over the data network to all the VSP-NS7 players in the system. No need for tedious, labor-intensive manual distribution.
- Selectable output resolution and aspect ratio, with graphics up to 1920 x 1080 and high definition video up to 1280 x 720.
- Up to five graphics layers, plus audio. Layers can include graphics, video or text.
- Smooth seamless video playback from internal hard disk drive, even for high-resolution graphics.
- Video streaming from Sony SNC-RZ50N or RZ50P network cameras.
- Support for Microsoft Windows® Media HD or SD, MPEG-2 (SD) and MPEG-4 streaming from a Sony SNC-RX5N or RZ50P network camera (SD).
- Support for graphics and text including full-color bitmap, JPEG, Adobe Flash 9 and Web (IE6, with Internet access).
- Web content can include RSS feeds and Java® material.
- Web pages can be reloaded at preset intervals.
- Text can be assigned any color or screen location.
- Portrait or landscape modes support customer applications. (No support for 720p video playback for portrait mode at 1920 x 1080 output resolution.)
- Auto power on and off at preset times.
- RS-232C and IP (Ethernet) control of display power on/off, input selection, picture mode selection and audio level with compatible Sony public displays (GXD-L52H1, FWD-S47H1, FWD-S42H1, FWD-50PX3, FWD-40LX2 and FWD-32LX2).
- RS-232C and IP (Ethernet) control of Picture-in-Picture function with Sony GXD-L52H1, FWD-S47H1 and FWD-S42H1 public displays. (Please note that the GXD-L52H1 does now allow P-in-P function via IP - Ethernet).
- Control of four simultaneous Sony public displays for video wall applications is available in IP (via Ethernet). RS232 control is available for up to 2 Sony public displays using the SI support function (COM2 port).
- Supports Sony FeliCa card readers and touchscreens via USB interface.
- Supports local pushbutton control via GPI RS-232C interface.
- Point-and-click content creation and playback scheduling with optional Sony VSPA-D7 digital signage player management software.
- Unified control for up to 200 players with optional Sony VSPA-D7L50 licenses.
- Remote monitoring of players and compatible Sony public displays connected via RS232C or IP (Ethernet) with optional Sony VSPA-M7 digital signage player monitoring software.

## Networked HD

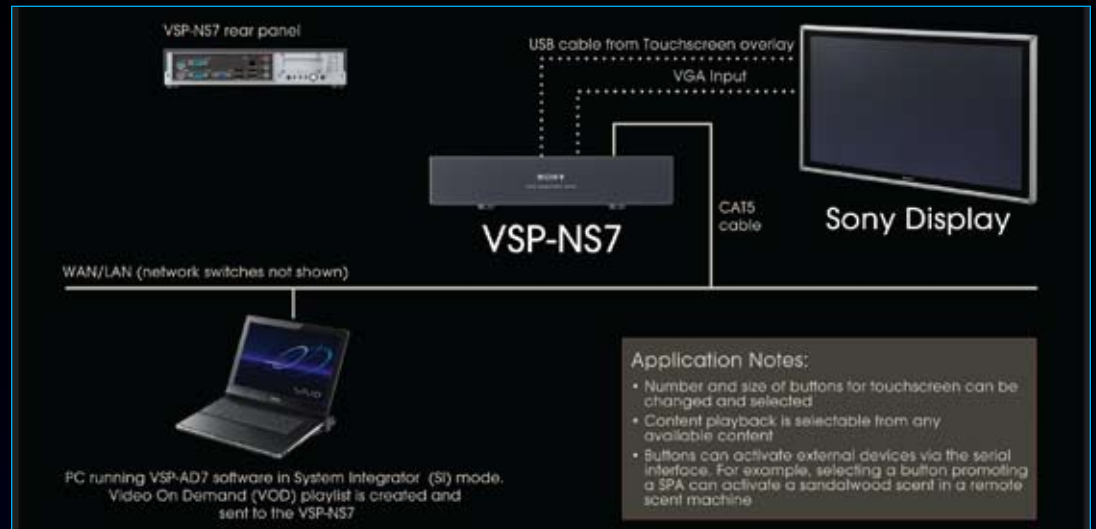
### The Customer Need

- To distribute compelling sales messages.
- To achieve maximum picture and sound quality with seamless, professional-grade presentation.
- To eliminate the manual loading of content for each individual screen.
- To simplify the task of scheduling and programming.
- To instantly accommodate fast-changing conditions, such as weather, special sales or public safety messages.



### The VSP-NS7 Solution

- Supports high definition with video playback up to 720p and screen resolution up to full 1920 x 1080.
- Supports up to five simultaneous image layers, plus audio.
- Layers can include full motion video (up to 1280 x 720p), web pages, RSS feeds, Adobe® Flash® content, Java™ content, graphics and text.
- Receives content over Ethernet. No need for tedious, labor-intensive manual distribution.
- Allows drag & drop programming from a PC (Required VPSA-D7 software sold separately).
- Interrupt function enables users to break into scheduled programming at any time for special sales or public safety announcements.
- Centralized programming enables a single PC to control up to 200 players. (Requires VPSA-D7 software and VPSA-D7L50 licenses.)
- Provides professional-grade seamless playback with pre-loading of video onto built-in 120 GB hard disk drive.
- Supports live streaming of camera pictures from Sony SNC-RZ50N, RZ50P network cameras.
- Supports remote monitoring of player and compatible Sony monitors with optional VPSA-M7 software.



## Emergency Broadcasting

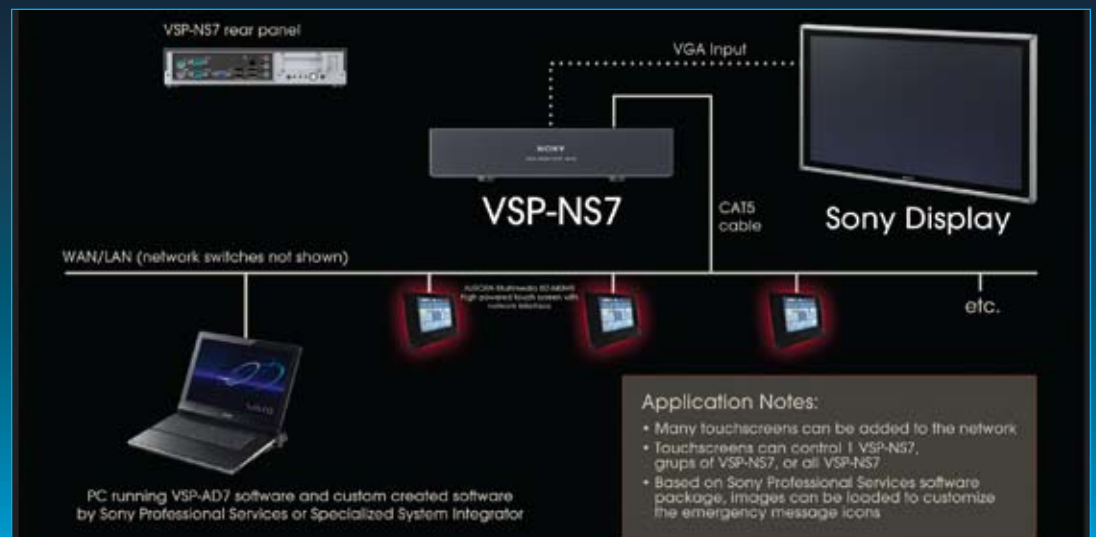
### The Customer Need

- To perform double duty: provide promotional information and branding during normal operation and alert information during emergencies.
- Colleges need to alert students to emergency health and safety issues.
- Nursing homes need to alert staff about healthcare emergencies and evacuations.
- The operator interface needs to be one-touch easy – no training or explanation required.



### The VSP-NS7 Solution

- "Alert!" software created by Sony Professional Services interrupts scheduled programming with alerts.
- Small, third-party network touchscreens (eg. Aurora Multimedia IBZ-840MB) anywhere on the network can trigger any one of a menu of alerts.
- Administrators can easily program touchscreen layouts, alert graphics and sounds.
- Scheduled programming automatically resumes after the alert is cleared.
- Programming can include up to five simultaneous image layers, plus audio.
- Layers can include full motion video (up to 1280 x 720p), web pages, RSS feeds, Adobe Flash content, Java content, graphics and text.



# Interactive Touchscreen Operation

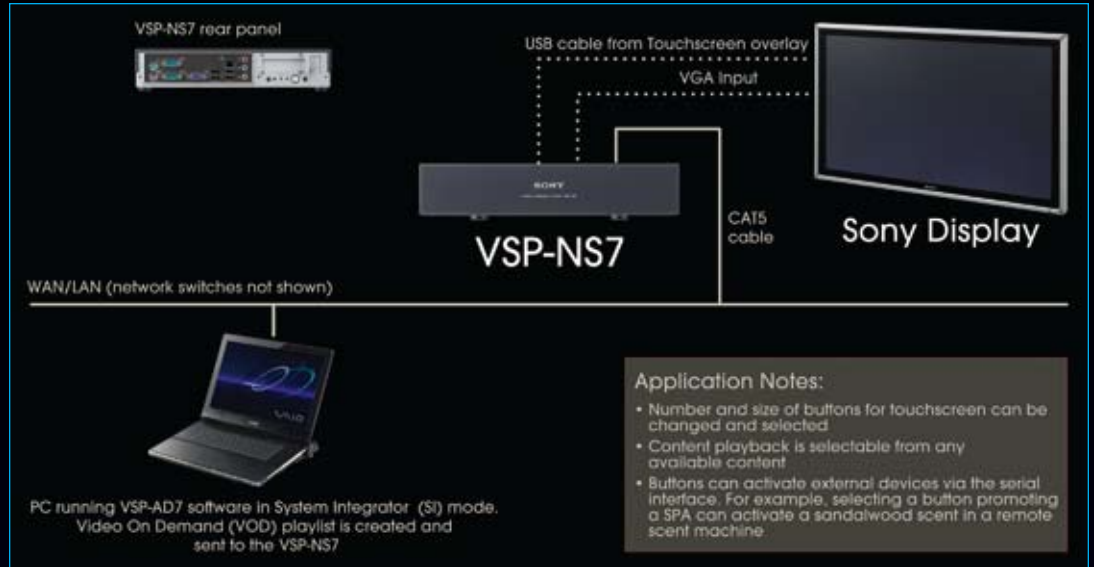
## The Customer Need

- For museums, to educate and inform in the most involving, compelling way possible.
- For retailers, to serve compelling product information exactly tailored to the customer's needs.
- For malls and college campuses, to replace traditional "you are here" maps with a far more informative system that encourages visitor involvement and creates branding opportunities.
- To disseminate user-driven multimedia, including HD video, graphics, text, web pages, Adobe Flash animation and audio.
- To provide the easiest possible end-user interface – no keyboard or mouse required.



## The VSP-NS7 Solution

- USB interface enables third-party touchscreens to communicate directly with the VSP-NS7.
- VSP-NS7 responds to the user's touchscreen selections with up to five simultaneous image layers, plus audio.
- Layers can include full motion video (up to 1280 x 720p), web pages, RSS feeds, Adobe Flash content, Java content, graphics and text.
- Content can be distributed over the campus network to all the VSP-NS7 players in the system. No need for tedious, labor-intensive manual distribution.
- Centralized programming enables a single PC to control up to 200 players. (Requires VPSA-D7 software and VSPA-D7L50 licenses.)



# GPI Operation

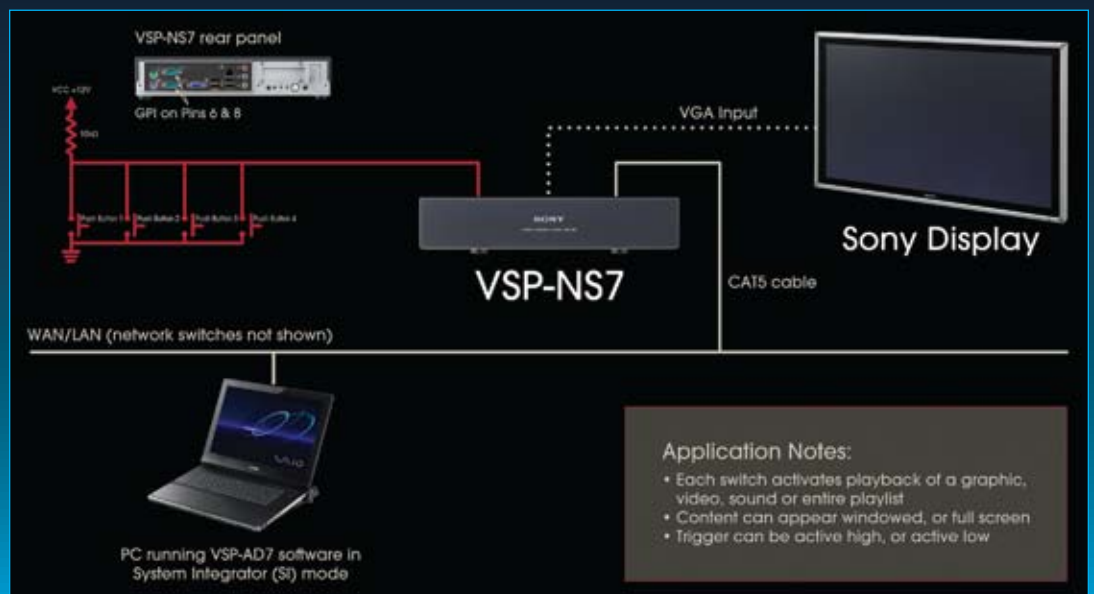
## The Customer Need

- For retailers, to trigger selling messages based on customer actions (such as picking up a piece of merchandise).
- For museums, to provide content driven by visitor-operated push-buttons.
- For shopping malls, transit hubs and other points of information, to answer routine customer questions at the touch of a button.
- To disseminate user-driven multimedia, including HD video, graphics, text, web pages, Adobe Flash animation and audio.
- To provide the easiest possible end-user interface – no keyboard or mouse required.



## The VSP-NS7 Solution

- RS-232C interface works with external GPI (General Purpose Input) triggers, using simple, cost-effective contact closure switches.
- VSP-NS7 responds to the user's trigger inputs with up to five simultaneous image layers, plus audio.
- Layers can include full motion video (up to 1280 x 720p), web pages, RSS feeds, Adobe Flash content, Java content, graphics and text.
- Content can be distributed over a network to all the VSP-NS7 players in the system. No need for tedious, labor-intensive manual distribution.
- Centralized programming enables a single PC to control up to 200 players. (Requires VPSA-D7 software and VSPA-DL50 licenses.)



## Picture-in-Picture Operation

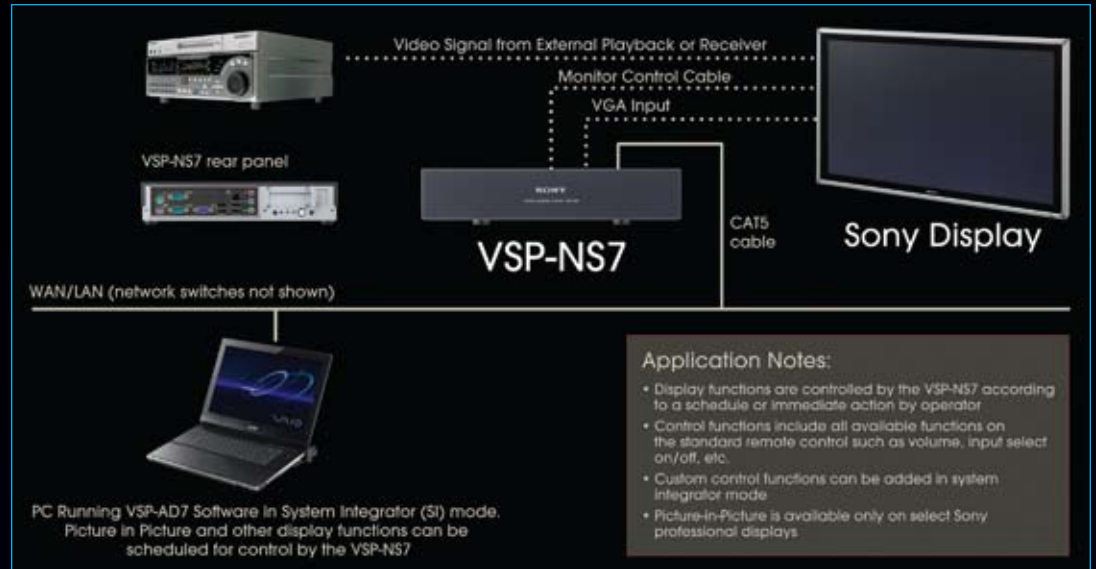
### The Customer Need

- For restaurants and sports bars, to display in-house selling messages and live television sports on the same screen.
- For amusement parks, theme restaurants and sports venues, to display prerecorded selling messages and live video simultaneously.
- To maximize exposure to sales messages while serving the customer's desire for live entertainment.



### The VSP-NS7 Solution

- RS-232C and IP interface triggers the Picture-in-Picture function of the Sony GXD-L52H1, FWD-S47H1 and FWD-S42H1 monitors. (NOTE: PinP via IP is not available for GXD-L52H1.)
- True Picture-in-Picture (P-I-P) functionality enables the monitor to display two inputs at once, as in live television and digital signage.
- VSP-NS7 can be scheduled to switch into Picture-in-Picture mode when the game begins, then switch back to normal operation when the game is over.



## FeliCa Card Operation

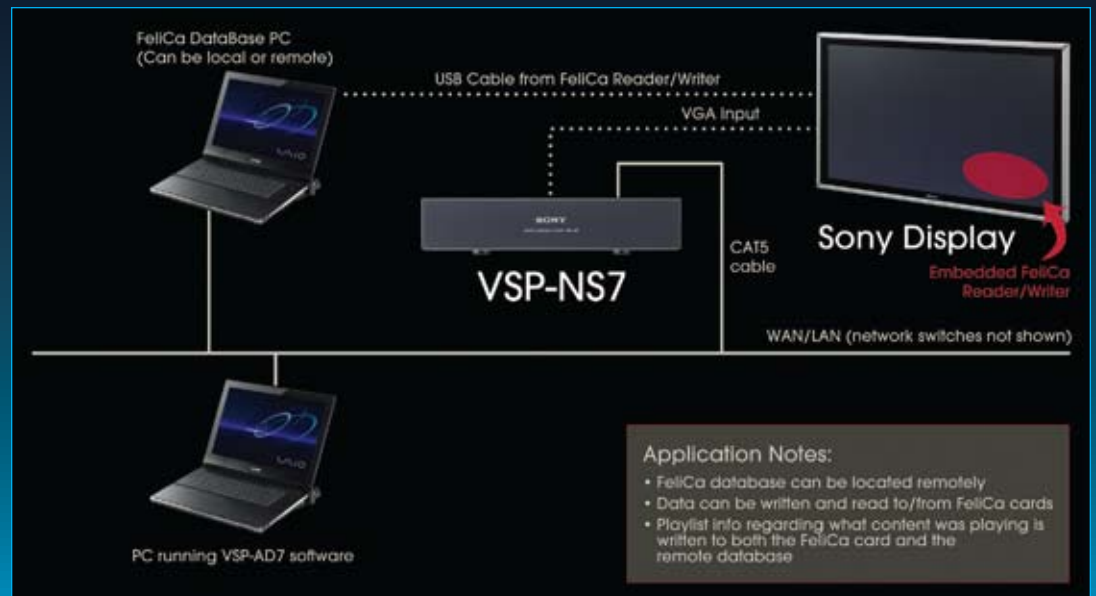
### The Customer Need

- For colleges, to distribute electronic coupons for the bookstore and cafeteria to ID card holders.
- For employers, to distribute electronic coupons for the cafeteria to ID card holders.
- For retailers, to distribute electronic coupons to credit card holders.
- For transit systems, to distribute electronic coupons to transit card holders.
- To get maximum feedback on coupon distribution, including cardholder ID, date, time, location and message that was playing when the cardholder responded.



### The VSP-NS7 Solution

- The Sony FeliCa card includes a contactless integrated circuit with memory.
- The FeliCa system has been deployed for more than 10 years with millions of cards already in use.
- A FeliCa card reader/writer can be embedded behind the bezel of monitor.
- When a cardholder touches the card to the FeliCa reader/writer, it can gather information from the card and write coupon information to the card.
- The FeliCa card reader/writer can exchange information with the VSP-NS7 via USB interface.
- The VSP-NS7 can report back to the FeliCa database PC over the LAN or WAN, so that administrators can keep track of whether promotions are hot or not.



# VSP-NS7 Specifications

## General

Dimensions (WHD)	11 1/8 x 2 1/4 x 11 3/4 inches (282 x 56 x 298 mm) (excluding protrusion parts)
Weight	Approx. 8.8 lb (4.0 kg)
Power Consumption	Approx. 45 W (max. 105 W)
Power Supply	AC 100 to 240 V, 50/60 Hz
Operating Temperature	+42° to +104°F (+5° to +40°C)
Storage Temperature	-4° to +131°F (-20° to +55°C)
Hard Disk Drive	120 GB

## Media Format\*

MPEG-2	Video: MPEG-2 MP@ML Audio: MPEG-1 Audio Layer II Bitrate: 4.2 to 9.8 Mb/s File types: .mpg or .m2p
Windows Media Video	Windows Media Video 9 Max. resolution: 1280 x 720
Live Video	MPEG-4 video from the Sony SNC-RZ50N or RZ50P camera Max. resolution: 640 x 480
Graphics	Bitmap, JPEG, Flash 9 (.swf), web (IE6)** Max. resolution: 1920 x 1080
Text	Bitmap, text
Audio	Windows Media Audio, WAVE, MP3

## Output (Screen Image)

Analog RGB	1920 x 1080, 1360 x 768, 1280 x 1024, 1024 x 768
Screen Rotation	Landscape, portrait (counterclockwise)

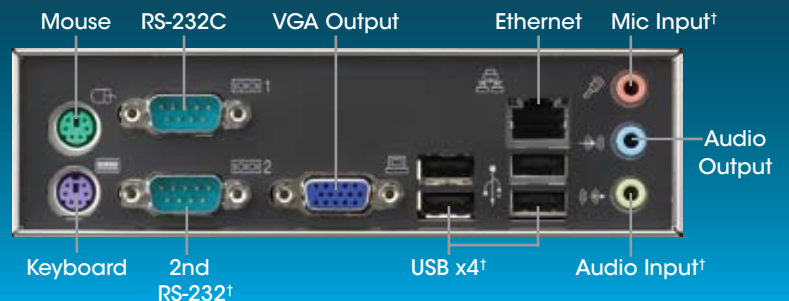
## Interfaces

Video Output	Analog RGB, D-sub 15 pin (female, x1)
Audio Output	Stereo mini jack (x1)
Audio Input	Stereo mini jack (x1) (for future extensions, not available)
Mic Input	Stereo mini jack (x1) (for future extensions, not available)
RS-232C	RS-232C, D-sub 9 pin (male, x2) (One port is available, the second port is for future extensions only)
USB	USB 2.0/1.1 (x4) (for future extensions, not available)
Network	100BASE-TX/1000Base-T Ethernet, RJ-45 modular jack (x1)
Mouse	6-pin mini DIN (for maintenance)
Keyboard	6-pin mini DIN (for maintenance)
Operating System and Network	Operating System Windows XP embedded OS
Supported Protocols	TCP/IP, HTTP
Supplied Accessories	AC cable (x1), Bracket for attachment to the rear panel of the GXD-L52H1 (x2), Screws (x15), Rubber feet (x4), Cable clamp (x1), Operating instructions (x1)

\* Some files may not play back.

\*\* To use a web page as a graphic layer, the VSP-NS7 must be connected to the Internet.

† Interfaces for future extensions; not currently available.



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