vSpace Pro 11 for Windows

(version 11.3 LTS Release)

RELEASE NOTES

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NComputing

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RODUCT RELEASE NOTES:
NCOMPUTING VSPACE PRO 11 (VERSION 11.3 LONG TERM SUPPORT)

Product: NComputing vSpace Pro 11 for Windows

Version: 11.3 Long Term Support (LTS)

Supported Operating Systems*:

- Windows Server 2016
- Windows Server 2012 R2 U1
- Windows Server 2012
- Windows Server 2008 R2 SP1
- MultiPoint Services Role – Windows Server 2016
- Windows MultiPoint Server 2012
- Windows MultiPoint Server 2011
- Windows 10 Enterprise Edition (64-bit, up to version1809 OS Build 17763.1)
- Windows 10 Pro Edition (64-bit, up to version 1809 OS Build 17763.107)
- Windows 8.1 (64-bit)
- Windows 7 SP1 (64-bit)

Supported NComputing Access Devices and Clients:

- RX300 with firmware version 3.4.9
- L250, L300 and L350 (L-series) with firmware version 1.15.1 or newer
- M300, MX100S and MX100D (M/MX-series) with firmware version 2.4.8
- vSpace Pro Client for Windows**, version 2.5.1
- vSpace Pro Client for Chromebook**, version 1.2.0.27

* For licensing details, see: http://www.ncomputing.com/mslicensing.

** vSpace Client is supported for desktop session delivery only and does not include the management options available for other access devices.

Supported Server OS variants include: Standard, Enterprise, and Datacenter.

Note that only 64-bit versions of Windows operating systems are supported.

The following notes contain important information. Please read this entire document to ensure that your installation and deployment process goes smoothly.

ABOUT THIS RELEASE:

vSpace Pro 11.3 LTS is intended to be used by NComputing customers who wish to stay on the long-term support for their deployment without future feature and functionality enhancement. This is the long-term support (LTS) version that is replacing the previously released vSpace Pro 10.x and 11.x versions. NComputing does not plan on adding significant new features or enhancements to this LTS version. However, from time to time we will release new versions of vSpace Pro 11 LTS to address critical security patches.

Customers using NComputing devices manufactured prior to January 1, 2015 will require active Annual Maintenance Program (AMP) plans to comply with the updated terms in the end user license agreement to use the vSpace Pro 11.3 LTS version.

Please use the following link to learn more about NComputing's Annual Maintenance Program (AMP) for customers with devices older than January 1, 2015:
https://www.ncomputing.com/products/vSpace/vSpace%20PRO%20AMP

NEW PRODUCT FEATURES, CHANGES, AND IMPROVEMENTS:

vSpace Pro 11.3 LTS carries over all features and enhancements from the previous vSpace Pro 10.x and 11.x releases and is intended to be used by NComputing customers who wish to stay on the long-term support for their deployment.

Following are the new product features introduced in RX300 firmware version 3.4.9 which comes with vSpace Pro 11.3 LTS release:

- Support for RemoteApp and Desktop connections.
- Support for native (functional) redirection of printers in RDP sessions.
- Support for VNC screen shadowing.
- Ability to setup a desktop wallpaper.
- Enhanced vCAST Web Streaming with Vimeo support.
- Enhanced vCAST VLC Media Streaming with NComputing SDA support.
- PMC connection status display.
- Calibration tool for touch screen monitors.
- Ability to select screen saver action.
- Lock-up of the 'Domain' field on the logon screen if a domain name is pre-configured in Kiosk Mode settings.
- Additional splash screen at the early stage of device boot-up process.
- Ability to configure 'Custom RDP parameters' for RDP connections in VERDE VDI Client mode.
- Improved behavior of the logon screen in VERDE VDI Client mode when the 'Allow using custom VERDE Connection Brokers' option is enabled.
- Cosmetic changes and spelling improvements in the GUI.

Following are the new RX300 firmware features requiring vSpace Pro Enterprise Edition:

- Enhanced multi-touch screen and smart board support.

NEW PRODUCT FEATURES, CHANGES, AND IMPROVEMENTS CARRIED OVER FROM ALL RECENT VSPACE PRO RELEASES:

Following are the new features, changes, and improvements carried over from recent vSpace Pro releases:

vSpace Server component:

- vCAST Streaming is now a standard feature (i.e., free).

  vCAST Streaming reduces server-side CPU usage when users watch web videos like YouTube or play local media content and does so without the need for expensive GPUs. This technology results in higher quality video streaming without CPU bottlenecks, allowing for more concurrent users on your system. Two flavors of vCAST Streaming are available:

  - vCAST Web Streaming: provides client-side rendering of HTML5 video contents (e.g., YouTube) played using the Google Chrome browser.
  - vCAST Media Streaming: provides client-side rendering of H.264-encoded video content played in Windows Media Player or VLC Player.

  Click here to learn about different NComputing thin clients' support of vCAST Streaming.

- Session Broadcasting is now a standard feature (i.e., free).

  Session Broadcasting provides screen sharing functionality, allowing one screen to be broadcast to others. This allows an instructor to broadcast his or her screen, or a student's screen, to other users connected to the same vSpace Server. Great for presentations, sharing local or web videos, or highlighting other content within a group.

  Click here to learn how to.

- New session "Block All" as a standard feature (i.e., free).

  Blanking all active session provides instructors or team leaders instant control to focus attention of the audience. The user session's screen is blocked and keyboard and mouse activity is disabled while blanking is in effect.

  Click here to learn how to.

- Access vSpace Multiview window with a passcode from a non-admin Windows user account:

  - Multiview, a popular feature from vSpace 8, is back in vSpace Pro 11. MultiView provides a dashboard of active session thumbnails, allowing a lead user to message other users, or take control of their sessions.
  - With vSpace Pro version 11.2.0 the Multiview window can now be accessed from non-admin account which a valid passcode (set by the admin). This further expands the use cases for classrooms and workgroup environment to allow non-admin users to manage other user sessions.

- Click here to learn how to.

- Support of Arduino and Microbit boards (e.g., for student's coding classes) with NComputing thin clients in the vSpace environment. The COM Ports Management option must be enabled in vSpace Console.

  Click here to learn how to.

- Extended smart card support for RX300 and vSpace Pro Client for Windows is now a standard feature (i.e., free):
  - If your organization requires smart cards for single sign-on, access control or other security-related measures, vSpace Pro version 11.2.0 provides enhanced smart card support for both RX300 and vSpace Pro Client for Windows with no limit on the number of smart card readers can be connected per vSpace Server. In this case, functional (native, virtual-channel-based) redirection of smart card readers has been added to overcome the limits of the Generic USB-based smart card reader redirection implemented in vSpace Pro 10.x and vSpace Server 8.4.
  - Other thin clients (L/M/MX-series thin client) still have the restriction of a maximum of 10 connected smart card readers per vSpace Server.
  - Click here to learn more on how to configure smart card reader support for different NComputing thin client families.

Other vSpace Server component improvements since vSpace Pro 10.5.1:

- RDSL-7096 – Further enhanced UXP 2.0 with adaptive UXP compression based on a combination of increased compression level and longer screen refresh to further reduce network bandwidth while still providing great user experience (vSpace Pro version 11.2.0).

- RDSL-7110 – Added WACOM and Topaz signature pads support on RX300 thin client through generic USB redirection; please refer to "Additional Notes and Workarounds" section for further details (vSpace Pro version 11.2.0).

  Click here to learn how to.

- RDSL-6911 – Added support for Arduino and Microbit development boards connected to NComputing thin clients (vSpace Pro version 11.2.0).

- RDSL-7106 – vSpace server side enhancement to support higher DPI scanner resolution (vSpace Pro version 11.2.0)
- RDSL-6994 – Added registry entries to enable application auto-start on desktop operating systems.
- RDSL-6973 – "Load USB after logon" parameter added to RX300 performance profiles.
- RDSL-6928 – Automatic backup of vital vSpace Pro registry keys to minimize the risk of registry key corruption caused by major Windows OS updates.
- RDSL-6906 – General UXP audio/video playback performance improvements in higher display resolutions.

- RDSL-6884 – Removal of multiple instances of the virtual display card to speed up loading of some applications.
- RDSL-6856 – Higher MOJO compression rate.
- RDSL-5344 – Improved virtual display driver loading procedure to speed up loading of some applications.

vSpace Console improvements since vSpace Pro 10.5.1:

- Code refactoring providing better performance, improved stability, and extended scalability (vSpace Pro version 11.2.0)
- VCON-929 - Security enhancement in CMserver.exe; disabled SSL3, TLS 1.0 and TLS 1.1, and ONLY enabled TLS 1.2 (vSpace Pro version 11.2.0).
- VCON-930 – Security enhancement in CMServer.exe; disabled insecure ciphers in TLS 1.2 (vSpace Pro version 11.2.0).
- VCON-932 – Added Multiview window access in non-admin mode with passcode authentication (vSpace Pro version 11.2.0).
- VCON-923 - Added new session “Block All” and “Unblock All” features in Multiview window; the user session’s screen, keyboard and mouse will be blocked while blanking is in effect (vSpace Pro version 11.2.0).
- Device list is auto refreshed during launching of vSpace Console (vSpace Pro version 11.2.0).

RX300 firmware improvements since firmware version 3.1.3:

- RX-1300 - Enhanced password encryption for autologin (RX300 version 3.2.13)
- RX-1297 – Enhanced scanner support (RX300 version 3.2.13)
- RX-1291 – Support new “Blank All” feature from Multiview to block screen, keyboard and mouse (RX300 version 3.2.13)
- RDSL-7110 – Added WACOM and Topaz signature pads support on RX300 thin client through generic USB redirection; please refer to “Additional Notes and Workarounds” section in the end for further details. (vSpace Pro version 11.2.0)
- Support for PMC device management.
- Integrated VERDE VDI Client with support for UXP and RDP protocols.
- Support for NComputing Pi Zero-based Secondary Display Adapters (SDA) with firmware version 0.9.3 or higher.
- Support for vCAST Windows Media Player Streaming, in addition to vCAST VLC Player Streaming (up to version 2.2.6).
- Functional (native) redirection of ACS and CCID-compliant smart card readers; please refer to the “Additional Notes and Workarounds” section below.
- Granular control of peripheral devices redirection.
- Support for external WiFi adapters; please refer to the “Additional Notes and Workarounds” section below.
- Improved power button behavior when ‘sleep mode’ is active.

BUG FIXES (SINCE VSPACE PRO 11 VERSION 11.2.0):

The following RX300 firmware issues have been fixed in version 3.4.9:

- RX-1614 – GUI termination due to receiving the SIGUSR1 signal just after boot.
- RX-1525 – VERDE Client: Domain name disappears when username is being entered.
- RX-1506 – Static IP Configuration: No error message is displayed if alphabetic characters are entered.
- RX-1460 – Some special Japanese keys do not work in vSpace sessions.
- RX-1458 – Connections to VERDE VDI or vSpace Servers fails after switching Network from Wireless to Ethernet (and vice-versa).

BUG FIXES CARRIED OVER FROM ALL RECENT VSPACE PRO RELEASES:

The following vSpace Pro (vSpace Server component) issues have been fixed in this product version:

- RDSL-7115 – Fixed the issue where the USB smart card reader attached to L300 device does not work properly (vSpace Pro version 11.2.0)
- RDSL-7116 - Created flag in registry for smart card reader compatibility mode using DATEV application; the default registry flag is SupportDATEV = 0 for maximum smart card application compatibility mode. Set SupportDATEV = 1 if DATEV application is to be used for smart card reader.
- RDSL –7093 – Fixed the issue where the smart card readers are redirected to main host session instead of device session on Windows 10 version 1803 (vSpace Pro version 11.2.0)
- RDSL-7060 – Fixed vCAST web streaming issue on RX300 with Pi Zero SDA connected for dual display where the Chrome browser always showed “NComputing vCAST: error” message (vSpace Pro version 11.2.0).
- RDSL-7081 – Rare black screen issue when connecting to Windows 10.
- RDSL-7063 – BSOD in usbport.sys on Windows 10 Professional.
- RDSL-6979, RDSL-6980 – BSOD when trying to redirect from L300 the Identiv CLOUD (uTrust) 2700 F smart card reader.
- RDSL-6905 – vSpace Console: inability to connect to License Server.
- RDSL-6842 – Mouse pointer disappears in dual display sessions on Windows 10 1709.
- RDSL-6719 - Incorrect HORZSIZE and VERTSIZE values returned by the GetDeviceCaps API function for UXP sessions (which results with incorrect font spacing in some applications).

- RDSL-5151 – Slow startup of .NET applications.

The following vSpace Console issues have been fixed in this product version:

- VCON-931 – Fixed the incorrect message issue when attempting to change device settings (Failed to get settings Reason: Out of memory) (fixed in vSpace Pro version 11.2.0)
- VCON-924 – Fixed the issue where sometime after refresh of whole network, devices from outside the network are added to the device list (fixed in vSpace Pro version 11.2.0)

The following RX300 firmware issues have been fixed in this product version:

- RX-1287 – Fixed vCAST web streaming issue where after pause web videos on dual monitors cannot be synchronized (fixed in RX300 version 3.2.13).
- RX-1297 – Fixed scanner crash issue (fixed in RX300 version 3.2.13).
- RX-1285 – Fixed Gemalto PC/SC Bridge can't detect Yubikey smart card connected to RX300 (fixed in RX300 version 3.2.13).
- RX-1171 – Device gets stuck with black screen after logoff from session with USB headset connected.
- RX-1168 – Missing Bluetooth and WiFi interfaces in Raspbian Desktop Mode.
- RX-1134 - Device reboot is required to apply Enterprise WiFi related network changes.
- RX-1097 – Device does not refresh the IP address automatically from DHCP after physically changing connection to another subnet.
- RX-886 - Problems with firmware downloads through FTP proxy.
- RX-878 – Freeze during YouTube video playback.

The following L-series firmware issues have been fixed in this product version:

- TT-780 – L350 units hang with the mouse cursor in the middle of the screen and they remain unresponsive.
- TT-778 – Outdated SSH server.

KNOWN ISSUES:

- Please refer to https://support.ncomputing.com/portal/kb for known issue details.

GENERAL INSTALLATION INSTRUCTIONS:

New vSpace Pro 11 installations should be performed on machines with fresh installs of supported Windows OS versions. vSpace Pro 11 relies on Remote Desktop Services

thus the Remote Desktop Services must remain enabled after vSpace Server installation to ensure correct system operation. When installing vSpace Pro 11 on a standalone Windows Server (not belonging to Active Directory domain) the Remote Desktop Services will be automatically enabled during vSpace Server installation. When installing vSpace Pro 11 on a Windows Server joined to an Active Directory domain the Remote Desktop Services must be enabled prior to vSpace Pro 11 installation.

Any application software should be installed after completing vSpace Pro 11 installation and rebooting the system.

Refer to 'vSpace Pro 10 Quick Installation Guide' for more detailed installation instructions.

UPGRADING INFORMATION:

vSpace Pro 11 can only be installed on machines running supported Windows OS, where no vSpace Pro 10.x nor vSpace Server 8.x is installed, as upgrades from these versions are not supported. Upgrades from vSpace Pro 11.0 (version released to selected customers only) 11.1 and 11.2 are supported.

RX300 FIRMWARE:

This vSpace Pro 11 comes with RX300 firmware version 3.4.9. For correct operation with this vSpace Pro 11 version, and to ensure best performance and remote management, all RX300 devices need to be upgraded to firmware version 3.4.9.

vSpace Console included in vSpace Pro 11 can only manage a subset of RX300 configuration settings. For full RX300 feature set management the separate PMC device management system should be used (requires active Annual Maintenance Program).

L-SERIES FIRMWARE:

This vSpace Pro 11 comes with L-series firmware version 1.15.1. For correct operation with this vSpace Pro 11 version, and to ensure best performance and device management, all L-series devices need to be upgraded to firmware version 1.15.1.

M/MX-SERIES FIRMWARE:

This vSpace Pro 11 comes with M/MX-series firmware version 2.4.8. For correct operation with this vSpace Pro 11 version, and to ensure best performance and remote management, all M/MX-series devices need to be upgraded to firmware version 2.4.8.

ADDITIONAL NOTES AND WORKAROUNDS:

- **RX300 support for USB signature pad models:**

  Following are USB signature pad models which have been pre-configured in vSpace Pro 11.3 server with proper server isolation (i.e. user A will not see the signature pad connected to user B).

On RX300 thin client, generic USB redirection policy must be applied to the connected signature pad for the peripheral to be recognized by vSpace. You can do so from RX300 setting menu > Peripherals > Custom > Custom VID:PID. Enter the VID and PID of the connected signature pad so this peripheral will redirect to the vSpace Server.

- VID PID 056A:00A1 Model: WACOM STU-500
- VID PID 056A:00A2 Model: WACOM STU-300
- VID PID 056A:00A3 Model: WACOM STU-520A
- VID PID 056A:00A4 Model: WACOM STU-430
- VID PID 056A:00A5 Model: WACOM LCD Signature Pad STU-530
- VID PID 056A:00A6 Model: WACOM STU-430V
- VID PID 056A:00A7 Model: WACOM LCD Signature Pad STU-530V
- VID PID 056A:00A8 Model: WACOM LCD Signature Pad STU-540
- VID PID 056A:00A9 Model: WACOM LCD Signature Pad STU-541
- VID PID 0403:6001 Model: Topaz Signature Gem T-LBK462-BSB-R
- VID PID 06a8:0043 Model: Topaz Signature Gem T-L462-HSB-R

- **RX300 functional (native) redirection of smart card readers**

  Functional redirection of smart card readers leverages the PC/SC daemon and smart card reader drives embedded in the device firmware. Please refer to RX300 firmware Release Notes for list of smart card reader drivers that are supported with native redirection.

- **vCAST Media Streaming**

  vCAST Media Streaming supports up to and including VLC Player version 2.2.6.

- **The 'USB Audio Redirection' option on L-series firmware**

  By default the "USB Audio Redirection" option in the L-series firmware is not enabled, **this is the recommended configuration**. vSpace Server sessions will default to use the 'NComputing virtual audio device' for playback and recording of locally connected USB headset (or other USB audio device) to an L-series client. This is the simplest and recommended setup. In this case when both USB and analog headset are simultaneously connected to an L-series client, the client device will default to use the connected USB headset for all audio playback and recording.

  With "USB Audio Redirection" enabled vSpace provides redirection of the USB audio device to the host Windows server and uses the host servers appropriate Windows audio device driver for playback and recording to and from USB audio devices that are connected to an L-series device. In this case the users Windows session will report the USB audio device name in the Windows device manager alongside the 'NComputing virtual audio device'.

  With the 'USB Audio Redirection' option enabled the user in his/her vSpace Server session can access two audio devices:

  1) the 'NComputing virtual audio device' (with input/output assigned to the L-series' integrated audio jacks),
  2) the locally connected USB audio device with its original name.

Using a USB headset (or other USB audio device) with the 'USB Audio Redirection' option turned on usually allows a higher audio sampling rate (which should result in improved sound quality), but also consumes increased network bandwidth as larger amounts of audio data are required to be transferred between the vSpace Server and the client device. As USB audio devices tend to be timing sensitive, the sound may occasionally get choppy or stutter if the network is not able to sustain the audio data traffic data rates in a busy network environment. In some circumstances, where L350 devices are used with HD monitors, in rare occasions it is possible for audio playback to be disabled when playing web videos, if you experience this problem you will need to re-boot your L350 access device. For this reason, we do not recommend using USB Audio redirection with L350 access devices.

- **Truncation of the last few seconds of sound recording**

  Under certain system and network conditions, when recording sound without enabling the 'USB Audio Redirection' option, the recording start time may be delayed and the last few seconds of the recording might be truncated. This happens because the client device buffers voice data prior to it being sent to vSpace Server. The keyboard and mouse events however will be sent immediately, without buffering. This results in the sound recording application to receive the "stop recording" event before receiving all the recorded data. To avoid the possibility of truncated recordings users should wait a second or two after finishing the recording before stopping a recording. To minimize this effect, the UseAdvancedMicThread REG_DWORD value can also be set to 0 in the HKLM\SYSTEM\CurrentControlSet\Control\Multiuser registry key on the vSpace Server.

- **HTML5 video playback with Internet Explorer 11**

  To ensure successful playback of HTML5 videos on Windows Server 2008 R2 the Desktop Experience feature and an update for the Desktop Experience Decoder must be installed.

  See: https://support.microsoft.com/en-us/kb/2483177 for more details.

- **Power Plan settings of vSpace Server**

  When using vSpace Server, especially on desktop versions of Windows OS, the Power Plan settings should be configured in a way, which will never allow the hard disks to be turned off or the computer to enter the sleep or hibernation state after a period of inactivity.

- **Using a physical host with AMD/ATI GPU**

  When using a physical host with AMD/ATI GPU it's advisable to install the video driver only, without the Catalyst Control Center (CCC.exe) utility. This would prevent potential memory leak in AMD's Catalyst Control Center which may affect system instability.

CONTACTING TECHNICAL SUPPORT AND ADDITIONAL RESOURCES

- Visit the NComputing vSpace Pro website to learn about vSpace Pro 11.3 LTS, vSpace Pro Enterprise Edition and common FAQs.
- Please use the following link to review the updated terms in the NComputing end user license agreement for vSpace Pro: https://support.ncomputing.com/portal/kb/articles/ncomputing-software-eula
- Visit the NComputing Knowledge Base at https://support.ncomputing.com/portal/kb for more information, guides, and walkthroughs.
- To request Technical Support, please visit the NComputing Support page at https://www.ncomputing.com/support/support-options

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