NComputing®

VERDE™

*The **VERDE VDI** desktop virtualization platform by NComputing is a purpose built, all-in-one solution that delivers a persistent, personalized desktop experience across popular user devices including laptops, and tablets. **VERDE VDI** takes organizations ranging in size from small offices to large, global enterprises all the way from bare metal to a fully-enabled virtual desktop infrastructure.*

Key Technologies At-A-Glance

STORAGE OPTIMIZER™

Automatically moves Gold Master images to the server's local storage which typically caches to server memory. This enables fast reads of the Gold Master in user sessions while eliminating the IOPS load on shared storage thereby lowering storage-related costs and increasing performance.

GOLD MASTER IMAGES

Administrators reduce management significantly by creating Gold Master desktop images with the required OS and applications for each user segments. Users run a read-only copy of the image with personal settings and documents written to a separate user disk.

SERVERS AND CLUSTERS

Built on open Linux standards, **VERDE VDI** uses a highly scalable, Web 2.0 horizontal model in which each server is a standalone instance of the complete infrastructure.

AD/DIRECTORY INTEGRATION

Seamlessly integrates with LDA compliant directory services including Active Directory, Novell E-directory and OpenLDAP.

Exclusive Features ONLY VERDE VDI delivers:

- **Single-ISO installation:** Accelerates and streamlines deployment — `FASTER`
- **Storage Optimization:** Lowers storage costs by allowing use of less-costly storage options — `LESS EXPENSIVE`
- **Equal support for Windows and Linux:** Provides flexibility to meet a greater variety of user needs — `MORE USEFUL`
- **IO Optimization:** Lowers response times for enhanced user experience. — `MORE USABLE`
- **Single-SKU licensing model:** Simplifies purchasing process — `EASIER`
- **RX300:** Access client with UXP 2.0 protocol and vCAST technology — `MORE USEFUL`

Key Features VERDE VDI installation delivers:

- **Automated PXE deployment:** Enables and simplifies remote, bare metal installation — `EASIER`
- **Role-based access control:** Provides granular user access control to help reach compliance goals — `MORE USEFUL`
- **Multi-tenancy:** Let's you manage separate installations (e.g. for LOBs) from one console — `MORE USEFUL`
- **Network controls:** Improves user experience and enhances security — `MORE USABLE`
- **Superior client-side web video:** Improves the user experience and helps promote user adoption — `MORE USABLE`
- **Linux virtual desktop dual monitor support:** Provides flexibility to meet a greater variety of user needs — `MORE USABLE`
- **Native clients for Windows, Mac, Linux, iPad:** Supports a range of BYOD options and enhances mobility support — `MORE USABLE`
- **Support for GPU:** Enables software packages to access GPU. Supports vGPU Grid and standard GPU cards. — `MORE USEFUL`
- **Completely stateless clustered servers:** Increases scalability with distributed connection brokering — `MORE USABLE`
- **Gold master image model:** Reduces the number of images requiring management — `MORE USABLE`
- **Single-console support for USB peripherals:** Facilitates support of online, offline and branch virtual desktop users — `MORE USABLE`
- **Uses RDP, SPICE, HTML5 display protocols:** Automatic selection based on connection/desktop type for a rich PC experience — `MORE USEFUL`
- **Cluster File System-based storage:** Removes the need for an external NAS device — `LOCAL STORAGE` `LESS EXPENSIVE`

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SYSTEM REQUIREMENTS

- Standalone or Cluster, in Data Center or Cloud

- 64-bit Intel Xeon or AMD Opteron processor(s) with Intel VT or AMD-V

- 1Gbps Ethernet port minimum

- Actual CPU core, memory and disk capacity depends on concurrent virtual desktop deployment size

LEAF

- Legacy Endpoint: 1GB RAM, 8GB storage

- Zero Endpoint: 1GB RAM, 8GB storage on PXE server

USER ACCESS ENVIRONMENTS AND DEVICES

- Windows 7/8.1/1032 or 64 bit, x86 RHEL, CentOS, Mint, Linux Lite, or Mac OS

- *NComputing* **RX300** thin client. Other thin clients with embedded Windows or Linux and administrator access.

- HTML 5 web browsers

- Standalone clients for Windows, Linux and MacOS

- aFreeRDP for mobile access

DESKTOP OPERATING SYSTEMS SUPPORTED

- Supporting virtually all desktop applications

- Windows 7, 8.1, 10(32/64bit), Server 2008, 2012r2, 2016

- Red Hat Enterprise Linux 5.6, - 7.2 (or CentOS) (32/64-bit)

- Ubuntu 14.04, 16.04, 18.04

- Centos 6.x, 7.x

- SUSE Enterprise Linux Desktop (SLED) 11 (32/64-bit)

- Mint Linux 8.x, Linux Lite

Web-based monitoring

The web-based monitoring console offers visibility to all virtual desktop sessions running on **VERDE VDI** cluster servers. Admins have flexibility to view virtual desktop sessions grouped by user or server, or based on type of gold image. The console also provides real-time server utilization metrics.

- Unified management console between virtual desktops & branch virtual desktops
- At-a-glance views to virtual desktops by user, server, type of gold image or AD membership

- Configurable reporting on capacity / historical data, user events (login/logout), desktop / application activity and admin events (login/logout)
- Centralized visibility for desktop and branch desktop virtualization

Branch Management

Ensures services are up and running for every employee, at every branch. Treat your branch office employees like those at headquarters by freeing them from slow, choppy and unreliable WAN connections. **VERDE VDI** branch management technology reduces network bandwidth in many scenarios while providing business continuity even if the WAN network is down. The branch server connects directly to the **VERDE VDI** cluster and gold master image repository.

- Zero-administration branch solution delivers LAN-like virtual desktop performance for branch users
- Direct, local connection ensures branch users run the latest, authorized copies of desktop sessions

- Centralized management of desktop images in the data center eliminates the need for expensive WAN optimization solutions
- Support for USB peripherals for online, branch virtual desktop users

Users

Distributed Connection Brokering provides dynamic routing of user sessions to the optimal **VERDE VDI** server. This eliminates any single point of failure or choke point, allowing greater availability and scalability. The server-side hypervisor includes the **VERDE VDI** hypervisor, based on KVM and optimized for desktop virtualization. Hardware-assist (VT) allows more desktops to run per CPU core while KSM (Kernel Shared Memory) improves memory density.

- Stateless cluster servers increase scalability with Distributed Connection Brokering
- Enables role- and task-based provisioning for desktop virtualization deployment
- Runs on Windows, Linux, Macs, netbooks, chromebooks, iPads and android tablets
- Enable users to launch multiple virtual desktop sessions simultaneously

- SmartCast technology provisions the appropriate protocol (UXP 2.0, SPICE, RDP or HTML5) based on user connection and desktop type for a rich PC experience
- Single console supports USB peripherals for online and branch virtual desktop users
- *NComputing* vCAST technology when used with RX300 and the UXP protocol.