

The New VS: Standard Server Platforms with 100% VS Software Compatibility

The New VS

For the first time in twenty years, Wang VS customers have a continuous upgrade path from all legacy VS models to revolutionary new and efficient hardware at performance levels up to and far beyond the power of a VS18950. With the New VS, such upgrades are not only possible, they are seamless. At the same time, the New VS capitalizes on the latest hardware technology by replacing existing Wang VS systems with standard Dell or IBM servers.

Smooth upgrading is achieved through the use of hardware abstraction layer technology that provides a 100% binary compatible interface for the Wang VS. This is a true upgrade. There is zero program or data conversion. The New VS IPLs and runs the actual VS operating system and VS applications, which means applications are executed identically on the New VS and legacy VS systems. All files are byte-for-byte identical, too. Consequently, upgrading requires little more than a standard restore. There is no re-programming or debugging, and none of the risk and cost associated with migrations to new platforms. The New VS is a VS without the VS hardware, making the New VS faster, sleeker, more reliable and less costly to operate.

The New VS Means New Technology

The New VS not only offers a wide range of performance, it does the job while using less space, less power and less cooling. The hardware platforms for the New VS are qualified servers from Dell or IBM, servers as compact as 2U (3.5 inches), making for easy mounting in standard racks. The shrinking footprint frees up computer room space while the design technology of these qualified servers incorporates the latest advances in high-performance CPUs, RAID, disk drives, tape drives and remote control.

Standard server platforms also represent freedom

from top-end limited technology. The competitive server marketplace encourages constant innovation, so installations will be able to stay as close to the leading edge as desired.

The New VS qualified servers include the Dell PowerEdge 2850, 2800 and 1850 (available now) and the IBM OpenPower and/or pSeries (available 3Q05). The customer selects the hardware manufacturer and TVS provides the appropriate server to meet performance and installation requirements.

Large Storage in Small Places

A nearly unlimited world of storage fits within the New VS enclosure, beginning with fault-tolerant disk subsystems with 256 MB cache and 320 MB/sec 10K and 15K RPM disk drives. Also available is a multi-host RAID, which can bridge between old and New VS for repetitive data transfer during coexistence or extended system testing. The New VS also supports a wide variety of 4mm and DLT/SDLT tape drives, with more legacy and new, high-performance SCSI devices being tested and added to the lineup. Where necessary, front-loading 9-track tape drives can be housed in the same rack as other New VS hardware, replacing unsupported Telex and Kennedy tape drives.

But it's not all a story of more storage. With high-performance disk and tape options, the New VS delivers much faster file I/O at any VS speed, which means the New VS out-performs the equivalent legacy VS in I/O-bound applications.

Virtually Unlimited

Because much of the physical architecture of legacy VS systems is implemented virtually in the New VS, many common programming and operational constraints no longer apply. For example, the New VS can dedicate as much of the system memory to VS memory as necessary, which eliminates page-outs. Virtual IOCs mean that the New VS can handle as many IOCs as the legacy VS, typically up to 15, with no addition of hardware. VS volumes on the New VS are also virtual, so new ones can be created as needed within the limits of the installed disk con-

figuration, without the need to purchase and install VS disk drives; and, with a potential 1.5 terabytes of fault-tolerant disk storage, the New VS provides applications with more than ample room to grow. Unlimited external storage in the form of enterprise RAID, SAN, etc. can also be utilized.

New Life for VS Applications

The 100% binary-compatible Hardware Abstraction Layer of the New VS protects the total investment in current applications. At the same time, application performance is improved through the use of multiple gigahertz-plus processors and high-speed internal data buses. Because the New VS covers the entire range of VS models, there is a wide range of performance levels to choose from, and performance can be upgraded without the need for hardware modification. In addition to protecting VS applications, the New VS allows the programming staff to develop new applications without retraining or accommodations. Designers write, modify and debug their code in a familiar environment, maintaining their proficiency and productivity. (In fact, with the performance gain of the New VS, debugging and testing will proceed even faster than before.)

Moving Beyond the Ordinary

The key benefits of the New VS are ready to deploy immediately. Besides running actual VS code, including the operating and file systems, the New VS supports the full set of SCU functions, its own workstation client and 4mm and DLT tape. The New VS also integrates support for the Lightspeed desktop client product, eliminating the need for "gateway" PCs and reducing equipment requirements while vastly improving file transfer throughput.

Another benefit of the New VS is license-controlled performance. Performance can be adjusted without the need for maintenance visits or downtime. There are no hardware changes necessary, protecting the investment in current equipment.

Beyond Traditional Connectivity

Our commitment to performance that meets and exceeds current VS hardware extends to networking and communications. Making good on those commitments means that over the next year the New VS will offer a higher level of connectivity than available with VS hardware. The New VS will smoothly integrate with existing applications. For example:

- access to common Linux and network facilities will be available to VS applications. The ability to send an e-mail message, pick up and process e-mail from a mailbox or handle ftp transfers to and from other systems are just early examples. In the future, the New VS will provide access to other interfaces, such as remote database protocols;
- IP-based Resource Sharing Facility (RSF) will allow the clustering of multiple New VS instances running in the same server or in separate servers;
- in the future, New VS systems will support Wang System Networking (WSN), including interoperability with legacy VS systems. WSN provides remote logon across multiple network hops and native VS file transfer between systems.

By taking advantage of newer hardware, the New VS carries useful VS networking functionality forward while providing newer, faster data links.

Upgrade Procedure

- the New VS hardware and software are installed;
- the legacy VS is backed up in the usual manner;
- a new CONFIG is created on the New VS;
- virtual VS Volumes are created and initialized;
- all volumes are restored from the VS backup tape(s).

In larger systems, the legacy VS disk subsystem may be temporarily connected to the New VS to transfer files disk to disk.

A Secure Investment

The New VS will grow and evolve to keep pace with the advancing marketplace. That's why TVS and Getronics have planned for the rapid availability of entirely new VS features, including easy access to TCP/IP, e-mail, ftp, ODBC and other, open-ended, development projects. That means any investment in the New VS is protected against being locked in to unsupported hardware or squeezed by limited hardware and software performance; and, the investment in a New VS is easy to manage. The New VS is available with a bundled hardware option to eliminate capital acquisition, management, upgrade and disposal issues in favor of regular, predictable monthly or annual expenditures.

The New VS is officially sanctioned by Getronics (formerly Wang Global, formerly Wang Laboratories) and has passed all Getronics validation diagnostics. In the U.S., the New VS is sold by both TransVirtual Systems and Getronics. Overseas sales are made through TVS and local Getronics subsidiaries and affiliates. Support for the New VS software environment is provided by TransVirtual, while support for the VS system software, including OS releases running on a New VS, continues to be provided by Getronics.

Performance

License/performance tiers for the New VS are:

Tier	FAST	Equal to/faster than VS models
AB	600	5430, 5440, 5460, 6110, 6120
AE	1200	6230, 7x70, 8x70, 10050, 10075
AG	2200	6230T, 7x80, 8x80, 9x80, 10100, 12450
AL	4000	12550, 12650, 16750, 16850
AM	7300	18950
AP	12000	- - -

Hands-On Evaluation

The New VS can be evaluated in several ways:

- via a free online Web demo of a live New VS

system;

- via remote evaluation running a user's own software on one of TransVirtual's New VS systems, loaded from the user's VS backup tapes;
- via on-site evaluation running a user's own software on a New VS temporarily installed at the user's location;
- via a demonstration at TransVirtual's facility in Houston, Texas. Users can evaluate a New VS, with the option of loading their system onto the New VS using their backup tapes.

Requirements

To upgrade, the following restrictions apply:

- VS OS versions prior to 7.53 cannot be moved to the New VS. Systems running on earlier versions must be upgraded to 7.53.01 or 7.54.11 prior to upgrade to the New VS.
- Older VS models unqualified to run VS OS 7.53 may require OS upgrade concurrent with loading into the New VS, which may incur additional time and fees.
- Obsolete hardware may not be supported.

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