Business Value

In Small-Medium business and distributed offices of large enterprise, simple all-in-one backup solution is always on demand. With the cooperation of Veritas Backup Exec and QNAP, a single appliance that contains high performance backup server, flexible data storage, and strong capability backup application across physical, virtual and cloud environment is now available.

About Veritas Backup Exec

Veritas™ Backup Exec delivers powerful, flexible and trusted data protection across virtual, physical and cloud environments. Veritas™ Backup Exec is designed to help you streamline operations with intuitive wizards, insightful dashboards and radically faster performance. With Veritas™ Backup Exec you can meet data recovery objectives and reduce overall costs while eliminating traditional backup complexity.

Key Features and Benefits

- Single solution for virtual, physical and cloud environments simplifies backup and eliminates the cost and complexity of multiple point products.

- Fast virtual machine snapshots through deep integration with Microsoft® Volume Shadow Copy Service (VSS) and VMware vStorage™ APIs for Data Protection (VADP) minimizes CPU, memory, and I/O load performance impacts on the virtual host.

- Instant Recovery of VMware and Hyper-V virtual machines provides an immediately usable copy of the server and data for DR, compliance, testing and application deployment.

- Integrated global deduplication and change block tracking allows you to protect more data while minimizing disk space required for backup files.

- Veritas-certified compatibility with virtually any storage device including disk, tape and cloud means Backup Exec supports your organization's storage strategy, not the other way around.

- Integrated bare-metal, physical to virtual (P2V) and virtual to physical (V2P) recovery helps minimize downtime and disruption.

About QNAP

QNAP Systems, Inc., headquartered in Taipei, Taiwan, provides a comprehensive range of cutting-edge Network-attached Storage (NAS) and video surveillance solutions based on the principles of usability, high security, and flexible scalability. QNAP offers quality NAS products for home and business users, providing solutions for storage, backup/snapshot, virtualization, teamwork, multimedia, and more. QNAP envisions NAS as being more than "simple storage", and has created many NAS-based innovations to encourage users to host and develop Internet of Things, artificial intelligence, and machine learning solutions on their QNAP NAS.

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Veritas Backup Exec on QNAP Appliance as Backup Server

Veritas understands the shifting needs of the on-premises IT infrastructure. With the cooperation with QNAP, Veritas have Backup Exec deployed on QNAP Appliances as a way for customers to simplify deployment and maintenance of their critical data protection infrastructures. With this cooperation, it represents the continuing evolution of QNAP and Veritas Backup Exec family, offering new features to meet the evolving needs of data protection.

Benefits of Backup Exec on QNAP Appliances	• **Fully Integrated Solution** – Hardware and software all-in-one box. • **Cost Efficient** – Consolidate your backup infrastructure and leverage the perpetual front-end capacity-based Backup Exec licensing model of QNAP Appliances. • **Simple to Implement and Manage** – Backup Exec server pre-installed in the appliance. Client machines can be protected with just a few easy configuration steps • **Performance and Scalability** – With predictable performance, QNAP appliances can run multiple types backup jobs simultaneously.

The main purpose is using the QNAP NAS as the main storage for the backup data made by Backup Exec.

Besides, while Veritas can use a QNAP NAS as storage, with Virtualization Station, the NAS is capable of becoming "storage as server" with reduced TCO by hosting Veritas software on a virtual machine and directly storing backed up data in the same place.
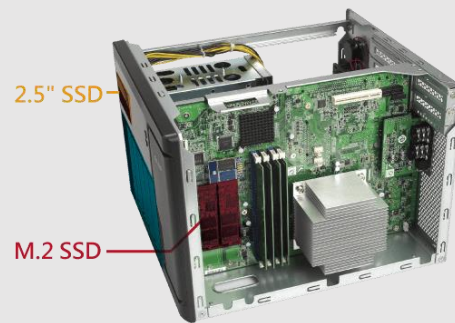
Tested Environment

QNAP engineers performed backup speed tests to show the performance of integration. Multiple backup jobs are tested. Test result shows quick backup speed with very low CPU and memory consumption on the appliance.

Test model	TVS-1282 i5-7500 CPU@ 3.40GHz RAM 16GB
Firmware	4.3.3.0404
HDD type	HDD x 8 (RAID 5)
Backup Exec version	16 Feature Pack 2
Virtualization Station ver.	3.0.2836
Network	x550 10GbE card
Backup Exec Server Operating Systems	Windows Server 2016 -- CPU : 4 Cores RAM : 8GB
Backup File information	
SDR file	550MB
Tested data size	100GB & 1TB files
Tested data type	Video files

The TVS-1282 features advanced hardware by adopting 6th Generation Intel® 14nm multi-core processors and was designed around the concept of tiered storage, application-based partitioning and network traffic distribution. Featuring PCIe Gen.3 slots that can support 10GbE/40GbE NIC, PCIe NVMe SSD, graphics cards, and USB 3.1 expansion cards, the TVS-1282 also supports smooth 4K @30Hz video transfer, cross-platform file sharing, comprehensive backup and disaster recovery, iSCSI & virtualization and more business applications. Incorporating reliability and security, the TVS-1282 presents an ideal choice for a complete business-ready storage solution.

2.5" SSD

M.2 SSD

- Built-in M.2 SATA 6Gb/s slots & 2.5" SSD slots
- Qtier technology and SSD cache enable 24/7 optimized storage efficiency
- The Network & Virtual Switch app assists network traffic distribution, and re-routes dedicated bandwidth for diverse applications
- Transcodes 4K H.264 videos on-the-fly or offline*
- Triple HDMI output for smooth 4K video playback
- Scalable design with economical QNAP storage expansion enclosures
- Virtual JBOD (VJBOD) allows to use QNAP NAS to expand the TVS-1282's storage capacity
- Supports QRM+ unified remote server management, QvPC technology, virtual machine and container applications, and storage for virtualization

Individual backup Jobs Backup Time includes vertification	
without deduplication (hh:mm:ss)	
BE server self-backup with SDR	00:01:21
File (100GB and 1TB files) backup	03:03:59
VM (1 guest VM) backup	00:06:32
Multiple Backup Jobs Backup Time includes veritfication	
without deduplication (hh:mm:ss)	
Perform 2 backup jobs at the same time	00:06:49
Perform 5 backup job at the same time	00:09:26
Perform 10 backup job at the same time	00:18:59

For More Information

Link	Description
http://www.backupexec.com	Backup Exec Home Page
http://www.backupexec.com/compatibility	Compatibility Docs
http://www.qnap.com	QNAP Home Page