

# ESCAPE

## ALL LIMITATIONS

### UNITRENDS RECOVERY SERIES APPLIANCE - **ADDRESSING ENTERPRISE-CLASS DATA PROTECTION**

UNITRENDS HAS LEVERAGED OVER 20 YEARS OF EXPERIENCE IN UNDERSTANDING EVER-CHANGING DATA PROTECTION CHALLENGES IN THE INDUSTRY AND RESPONDING TO DYNAMIC CUSTOMERS' NEEDS. WITH LARGE SCALE, ENTERPRISE DEPLOYMENTS, THE LEVEL OF DATA PROTECTION SCALES DRAMATICALLY TO ADDRESS THE EXPONENTIAL GROWTH OF INFORMATION; YET FEW SOLUTIONS ARE ABLE TO SCALE EASILY TO MANAGE THE GROWTH AND ALSO DELIVER A SIMPLIFIED WAY TO MANAGE THIS CHALLENGE.

*"Unitrends' assistance has brought me peace of mind many times, because **I know I'm in good hands.**"*

*Murugappan Periyakaruppan  
Warrior Sports*

*"**Support has been very good** when I needed it. I've been able to get a hold of individuals and they've been able to help me solve my problems in a short order."*

*Chris Howe  
Rollins College*



# UNITRENDS

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Unitrends large appliances, with our scale-up, scale-out architecture, were specifically designed to meet the demands of enterprise environments burdened with explosive data growth and distributed infrastructures. Unitrends Recovery Series larger appliances offer enterprise-class features that enable organizations to scale from a single data center to multiple data centers with hundreds of terabytes, and can accommodate infrastructures where data centers are either centralized or distributed. Unitrends offers unified data protection that easily scales with your dynamic data requirements.

IT professionals within complex environments face challenging decisions when purchasing enterprise-class data protection solutions. The solution and all the associated costs, including maintenance, annual license renewals, per-server or per-seat licenses, etc., are part of the consideration process. With Unitrends No Limits Licensing, the value speaks for itself. When you purchase a Unitrends appliance, you purchase enterprise-class backup and restore functionality at the lowest total cost of ownership in the industry. Your Unitrends appliance is licensed to seamlessly scale with your business. As your data grows, simply add additional appliances and manage all through one single pane-of-glass. Unitrends Recovery Appliance family integrates within your existing infrastructure by leveraging your high-speed networking, and is optimized to use 10GbE or fiber channel. The integrated functionality of an appliance combined with integrated all-in-one licensing dramatically reduces not only the up-front and recurring financial investment, but also the stress and burden of managing backups.

## **UNITRENDS RECOVERY APPLIANCES FOR LARGER SCALE REQUIREMENTS**

Unitrends Recovery Appliance family consists of robust, enterprise-class offerings introduced to help solve an array of data protection needs of the SMB/SME. This family of appliances allows for either a single, high-density appliance or multiple appliances scaling across multiple locations. Unitrends solutions are competitively priced and have feature sets which far exceed competitive offerings.

The goal of most IT manager's is to develop an optimum strategy for minimizing the incremental investment and total cost of ownership of data protection while being able to keep up with data growth. With Unitrends' scale-up, scale-out architecture, IT administrators for enterprise data can implement network segmentation and data routing to minimize load on the network and reduce backup windows. And again, all can be managed through one integrated, simple and elegant user interface.

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## **MOST ADVANCED FEATURE SET AVAILABLE**

Unitrends advanced data protection provides offerings that are designed to optimize your backup and recovery operations. A common, easy to use drag and drop interface managing backup, archiving and disaster recovery is all about one pane of glass for your physical, virtual and cloud data protection needs.

### *Scale up or Scale out?*

When it comes to architecting your backup solution, you may decide to scale up or scale out. In the context of scale-up, Unitrends defines this as more resources available on a larger backup appliance. This means more data can be protected, retained, and stored for longer periods of time based on your data size and retention requirements.

Unitrends defines scale-out as a deployment methodology to utilize several physical appliances to protect large data sets in your environment. Scale-out can also be used to protect different types of data and also to isolate individual business units. This method of deployment requires additional physical resources to configure and implement. No matter which deployment strategy you choose, Unitrends manages single and multiple appliances through one management interface reducing total cost of ownership and maximizing your IT administrator's time for running your business.

For scale-up, the focus of this brief is on Unitrends Recovery Appliance high-end, enterprise-level offerings provide the option of RAID 6/RAID 60 protected raw storage options up to 97 TB, with metadata on either traditional or solid-state drives. The backup storage can sustain two to four drive failures without data loss. Unitrends scale-out architecture enables minimal impact to TCO due to the single management interface and flexibility of the architecture.

Choosing the appliance for your environment depends on your business requirements pertaining to total protected data size, short- and long-term retention needs and disaster recovery plans. As noted below in the use cases, the IT requirements may be different based on data sets, retention policies, volume and throughput of backup windows and overall complexity of the environment.

Unitrends Recovery Appliance family grows with your business. Seamlessly managing your data backup strategies while your business needs grow is a challenge every IT professional encounters. Unitrends recognizes in many organizations, data is spread across disparate locations. It is necessary that a data protection solution adapt to and be flexible to accommodate the location of data. The Unitrends Recovery Appliance

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family of products protects the data on physical or virtual infrastructures and reduces your total cost of ownership with a single solution for your entire environment.

IT infrastructures and data centers have a variety of needs. To support operations, a variety of different applications, servers, and storage is typically needed. An individual server will only operate at around 18% of its capacity<sup>1</sup> therefore IT administrators are tuning their infrastructures to maximize hardware resources, typically through virtualization. In large-scale, enterprise environments, heterogeneous infrastructures exist to meet the growing demand. Should a backup solution offer anything less than protection of a complete environment?

Unitrends support of over 100 versions of servers, storage, operating systems, hypervisors, and applications including NAS, SAN, Windows, Linux, Mac OS X, AIX, Solaris, iSeries, SQL, Exchange, Oracle, VMware, Hyper-V, and many others. Developing a single data protection solution for this wide variety of environments has driven a unique data protection architecture that supports agent-based and agentless protection, as well as application-, file- and image-level protection.

<sup>1</sup> [http://en.wikipedia.org/wiki/IT\\_energy\\_management#cite\\_note-9](http://en.wikipedia.org/wiki/IT_energy_management#cite_note-9)

## SCENARIOS

### Scenario 1 – Backup Need Increasing but No Room to Grow

A large metropolitan customer has the need for a data protection solution that is consolidated, yet powerful enough to meet the needs for the environment. Floor and rack space is at a premium due to high costs associated with being in the heart of a large metropolitan city. As a result, the complexity of environmental characteristics such as cooling, power and cabling make installation very difficult. In addition, buying space for, installing and managing multiple assets is not an option. Industry has defined that servers and data centers account for 23% of IT energy demand<sup>2</sup>. The cost of expanded footprints does not make sense financially, disqualifying multiple assets on expensive floor space.

**Solution:** As your data grows and space is at a premium in the data center environment, the Unitrends Recovery Appliance family is an excellent solution. Unitrends appliances come configured with up to 256GB of RAM and 16 hyper threaded cores, providing 32 execution threads per appliance. This allows for up to 20 simultaneous and concurrent backup streams with resources to spare. To summarize, save expensive floor and rack space by consolidating to a single, 2u to 4u rack-mount footprint.

<sup>2</sup> Steve Kleynhans, VP Computing, Gartner presentation “the Green PC Environment”

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## **Scenario 2 – My backup windows is fixed but my data is growing**

Retail is my core business. My IT systems are heavily taxed with hundreds of transactions throughout the day. My network is heavily utilized and it is the lifeline of my business. I cannot afford to run backups over my network during the day; therefore they must be completed during off-hours. My highly transactional data warehouse is several hundred gigabytes in size. My current backup does not complete during off hours. I also need to archive my data to near-line storage to meet my long-term retention policies. What can I use?

Solution: Unitrends Recovery Appliance family, high-end, enterprise-level offerings. With the ability to configure multiple 10GbE network interface cards and the ability to bond multiple network adapters for higher aggregate bandwidth and ingest rate, Unitrends solution is an ideal fit for this environment. Unitrends appliances can maximize backup performance within the network and business hours constraints. In addition, multiple fiber channel and 10GbE Ethernet adapters can be configured in your Unitrends appliance to provide high-speed connectivity to your SAN or NAS to store your tertiary backups for long-term retention. Don't have a SAN or NAS for long-term retention? No problem. Unitrends also provides optional LVM or SAS SCSI adapters for tape connectivity and e-SATA adapters for removable disk connectivity for migrating older backups to off-site, long-term storage.

## **Scenario 3 - Centrally Manage Distributed Environments**

A new business rule has been instituted which requires me to off-site my data to my remote office. I have the need to protect data in headquarters as well as my remote and branch offices. Headquarters has a terabytes of data, and the IT administrators are located in headquarters. The remote sites have much smaller data sets, but these sites do not have IT personnel onsite to manage, so the backup and recovery administrator must occur at headquarters. Business policies indicate that I need to keep copies of the HQ data at a remote site, and copies of data from each remote site in headquarters. How can Unitrends help me with this challenge?

Solution: Multiple Unitrends Recovery Appliances. This customer's use case has the need to have a Recovery 943 or multiple Recovery 833 appliances in the datacenter at headquarters while the remote sites could use a smaller Unitrends Recovery Appliance. IT can centrally manage the data protection from the single pane of glass interface in headquarters.

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## DEPLOYMENT STRATEGIES

Licensing for the Unitrends Recovery Appliance family is uniform throughout the portfolio. No Limits licensing scheme which includes encryption, vaulting and allows as many clients and as much storage as the Unitrends Recovery Appliance enterprise family is physically capable of supporting (see Appliance Family Datasheet for breakdown of capabilities).

Unitrends appliances are monitored and managed through a single, intuitive, pane of glass, web 2.0-based user interface. Unitrends high-end appliances have specific enterprise class qualities.

FEATURE	FUNCTIONALITY
Parity Protected	<ul style="list-style-type: none"><li>• Split Metadata and Backup Data</li></ul>
RAID Protected Storage	<ul style="list-style-type: none"><li>• Operating System &amp; Database on RAID 1</li><li>• Backup data on RAID 6 or 60</li></ul>
Power	<ul style="list-style-type: none"><li>• Redundant Power Supplies</li></ul>
Scalability	<ul style="list-style-type: none"><li>• Modular, building-block appliance model</li></ul>
Resistant to Attack	<ul style="list-style-type: none"><li>• Hardening and virus-protecting appliance</li></ul>
Intelligent Platform Management Interface (IPMI) Systems Management	<ul style="list-style-type: none"><li>• 2U / 3U and 4U appliances have an IPMI network port by which we can remotely access the unit and quickly diagnose any issues.</li></ul>
All-in-One	<ul style="list-style-type: none"><li>• Backup, archive, and disaster recovery</li><li>• Licensing simplified and integrated</li></ul>
Total Cost of Ownership	<ul style="list-style-type: none"><li>• Decreasing your capital and operational expenditure with management interface</li></ul>

Unitrends best practice for securing your environment is to back up and protect your operating system and application data. With larger environments, data protection can sometimes be more fragmented and distributed based on the environment. Ideal configurations would include the separation or segmentation of data in the data sets. This would include separation of operating system and application data on separate drives. Systems configured with separation of data are protected and recovered easier rather than mixing different data sets.

When configuring data sets, the user may consider protecting systems differently than protecting application data. Systems may include operating system settings and the application binaries where protecting data may include the application database and log files associated with this environment. Both are equally important however may be treated differently in terms of retention, and backup cycles. This

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would help determine what size backup appliance to consider.

Retention and rotational archiving as well as storing duplicate data off-premise would be critical to recovery as well as long term protection. Unitrends Recovery Appliances interface with FC and iSCSI SANs for long term retention as well as connect to online cloud-based services.

## **MOST ADVANCED FEATURE SET AVAILABLE**

Unitrends advanced data protections offerings provides and offering that is designed to optimize your backup and recovery operations. A common, easy to use drag and drop interface managing backup, archiving and disaster recovery is all about one pane of glass for your physical, virtual and cloud data protection needs.

Licensing	<ul style="list-style-type: none"><li>• No Limits Licensing – no fees and no new release fees</li><li>• Predictable recurring cost, regardless of growth</li></ul>
Operating Systems and Applications	<ul style="list-style-type: none"><li>• Uses a common D2D backup and recovery engine</li><li>• Protects 100+ different versions of operating systems, hypervisors and applications.</li></ul>
Point-in-Time Protection	<ul style="list-style-type: none"><li>• Incremental Forever for improving recovery point objectives</li><li>• Up to 10,000 snapshots per week</li></ul>
De-Duplication	<ul style="list-style-type: none"><li>• Adaptive De-duplication™ is a hybrid data reduction technology combining inline compression with post-processing data de-duplication that adapts dynamically to data type.</li></ul>
Vaulting	<ul style="list-style-type: none"><li>• On-premise Unitrends appliance connection to Vault2Cloud</li><li>• Private Vaulting for disaster recovery</li></ul>
Bare Metal	<ul style="list-style-type: none"><li>• Cold and hot bare metal recovery</li><li>• Dissimilar physical or virtual hardware regardless of make, model or installed components.</li></ul>
Encryption	<ul style="list-style-type: none"><li>• 256-bit AES encryption on the on-premise appliance</li></ul>
Instant Recovery	<ul style="list-style-type: none"><li>• Instant Recovery of up to 25 Windows machines</li><li>• Virtualization Instant recovery in less than 5 minutes</li></ul>
Disaster Recovery	<ul style="list-style-type: none"><li>• Point-in-time data recovery</li></ul>
Virtualization	<ul style="list-style-type: none"><li>• Full protection of your VMware and Microsoft virtualization environments</li></ul>

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## **ALL-IN-ONE DATA PROTECTION**

Quick, instant and easy access to your data sets in the event of an outage is why Unitrends Recovery Appliances are the number one All-in-One data protection solution. Our commitment to our customers is to provide easy to use interface to recover information while maintaining daily operations.

## **LEARN MORE**

For more information visit our [Appliance Family offerings](#).

**TRY UNITRENDS NOW FOR FREE!**  
**NO LIMITS. FREE FOREVER. [DOWNLOAD NOW](#)**



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