



**DEFENDER<sub>X</sub>**

## HERO-DefendeRx & Secure-Cloud Overview



HEROware’s goal is simple, to create the best Backup and Disaster Recovery Solution on the market today. In doing so, we looked at the most rigid of all industries to make sure our products could withstand their compliancy rules and regulations. The Healthcare industries HIPAA/HITECH compliancy, including potential fines and jail time set the bar high for HEROware. We felt if we could become HIPAA/HITECH compliant then any company in any industry would feel good about using the HEROware Solution. Using best of breed Hardware and Software from Double-Take, Dell, Microsoft and Intel, and world-wide USA based Technical Support, including HEROware supported Installation and Failback, the HERO-DefendeRx™ provides affordable data protection, ensures minimal data loss, is HIPAA and HITECH compliant and enables immediate recovery from any system outage.

**Automated Failover**-The HERO-DefendeRx provides high-availability failover of servers to ensure users remain online in case of a failure. For customer facing systems, it ensures that customer satisfaction remains high and sales are not impacted.

**Failback/Restore**-Should a failure occur, HEROware manages the Failback and Restore process for you. Please contact HEROware technical support to schedule your restoration process.

**One-Click Test Failover**-HERO-DefendeRx lets you perform a test failover with one click. When selected from the monitor screen, the "Test Failover" function pauses all replication, starts the replica virtual machine and begins the test failover process. After confirming failover and checking that all files and folders are replicated, the administrator can "failback" automatically by selecting "Undo Failover".

### Key Features of the HEROware Product Suite

Feature-Onsite Appliance for Rapid Failover of Servers	Benefit	HERO-DefendeRx
Real-Time Up To The Second Server Replication	Business Continuity	✓
Rapidly Recover Entire Servers in Minutes	Continuous Operation	✓
Easy and Quick Testing of Servers	Piece of Mind	✓
Manages and Supports Many Windows Servers	Saves Time and Money	✓
Feature-Backup All Systems (Servers, PC's and Tablets)	Benefit	HERO-DefendeRx
Full Image Protection	Business Continuity	✓
Hourly backups (Snaps) with Individual File Restore	Business Continuity	✓
Optional Granular Recovery of All Emails/Email Boxes	Protecting your Assets	✓
Automatic or Manual Failover	Continuous Operation	✓
Microsoft Windows OS and Mac Protection	Protecting your Assets	✓
Intel/Dell/Microsoft Best of Breed Products	Piece of Mind	✓
Feature-Support	Benefit	Urgent Care
Free Restore-Included in Support	Saves Time and Money	✓
North American Support	Piece of Mind	✓
Bumper To Bumper Support-Hardware and Updates	Investment Protection	✓
Feature-Total Disaster Recovery Solution	Benefit	Secure-Cloud
Hourly backup with Individual File Restore	Business Continuity	✓
OS, Apps and Files sent Next Day on Encrypted USB Drive	Saves your Business	✓
7 Year Archiving-SAS 70-488 Encryption-HIPAA Compliant	Secure/Audit Compliant	✓



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**Snapshots-** The VSS Snapshot feature uses HERO-DefendeRx state awareness to take automatic point-in-time snapshots of protected data as data moves from a "known" to an "unknown" state, ensuring that the administrator has at least a "known-good" copy of protected data from which to recover.

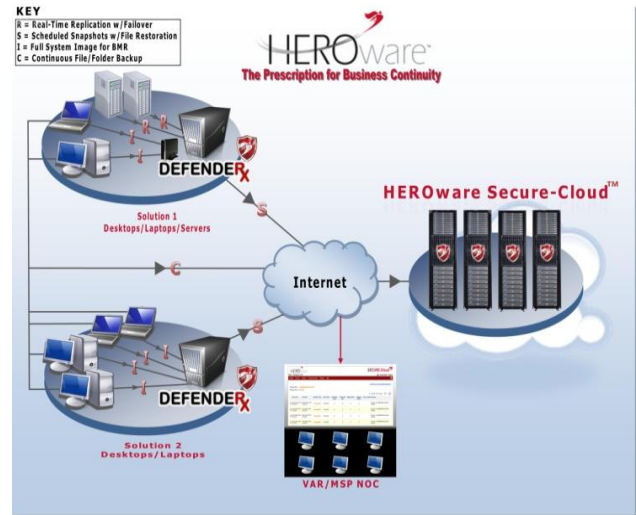
**Many-to-One Failover-**The HERO-DefendeRx can be configured to protect multiple production servers. Protection jobs of individual servers are independent of each other, thus allowing the failover of one or many servers while others remain replicating.

**Virtualization-**The HERO-DefendeRx lets you protect any production physical or virtual machine running a Microsoft Windows Server Operating System to a HERO-DefendeRx running Microsoft Hyper-V. Data is replicated directly into the HERO-DefendeRx virtual machine's virtual disk, which means that the HERO-DefendeRx virtual machine can remain powered off until it is needed for a failover; allowing oversubscription of the virtual environment at the recovery site and eliminating licensing fees for guest operating systems and applications.

This is a great diagram of how the data flows and what type of protection you receive for each device. With many layers of replication and redundancy, the HEROware solution allows for no single point of



failure with high availability and backup. With HERO Secure-Cloud you now have the "Utmost in Disaster Recovery".



### HERO-Monitoring for Remote Monitoring and Management

**File/Directory Selection-**You can de-select directories or files for replication, giving you greater flexibility to configure efficient use of reproductions. The use of wildcards facilitate quick and simple configuration.

**SNMP Counters and Traps-**HERO-DefendeRx simplifies management by integrating with any RMM software utility that supports SNMP and will forward replication statistics and events via SNMP.

### Conserve bandwidth

- Intelligently backups only the incremental changes.



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- Conserve bandwidth and reduce operational costs for your business
- Reduces storage required for your maintaining backups
- Byte level incremental backup
- Verifies the files in block level which ensures data integrity
- On by default on all the backups and matches the data size sent vs. received.
- Backup open files seamlessly using VSS
- Backup to the mailbox level in MS Exchange.
- Backup Active Directory and System State

**Reseller Portal for Secure-Cloud** is included with each Defender and offers a powerful and proven technology that performs backups for only the incremental changes in files and folders from the VHD that the DefendeRx created (you can only open the incremental backups (user defined), not the live backup). This technology is part of the end to end strategy of data protection adding another layer of protection and redundancy both locally and in the HERO Secure-Cloud. Instead of handling incremental changes in the block level (e.g. 4KB blocks), HEROWare technology goes one, actually, two steps further. HEROWare does not implement pre decided block sizes as this is often sub-optimal.



HEROWare decides on individually optimal block sizes for every single file after taking into account the original file size. This ensures that for each file, changes are examined at an 'optimized byte level'.

Additionally, HEROWare also leverages RSYNC's powerful ROLLING CHECKSUM feature - going one more step ahead of conventional approaches to incremental backups. If the connection between the client and backup server is lost when the backup is in progress, the HEROWare client will try to reconnect the backup server as per the specifications [like timeout interval,] mentioned in the configuration file and the selections made while creating the backup job. When the reconnection is made again, the backup will continue to run from where it left off previously and no files will be skipped. Here too, no new dump process will be started unless all the dumped files are uploaded to the backup server. And only the dump files already backed up to the backup server will be removed from the dump location and the files that are not uploaded to the backup server will not be removed from the dump location. They will be removed from the dump location only when the upload process is successful. Each device that needs to be backed-up requires a license.

### **Easy Management and Administration**

- Comprehensive configuration management ensures automated, scheduled backups

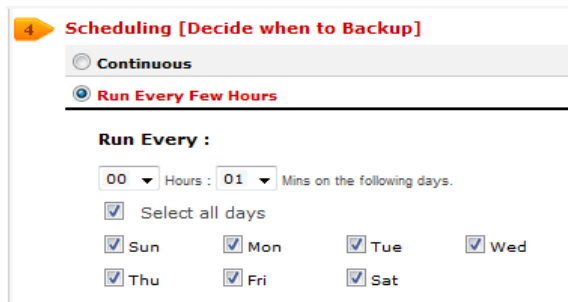


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- Events & alarm management features enable quick troubleshooting to avoid downtime
- Easy to use browser based web console enables remote monitoring of backups
  - Continuous (Workstations/Laptops only)
  - Run Every Few Hours (No Less Than 15 Minutes For Servers)



- Customer management features include easy invoicing to keep track of your accounts and generate periodical invoices with minimum administration time
- Advanced Reports
- Access client installations over browser based console

**Security and Encryption**-Encrypts your backups with up to 448-bit military level encryption.

- Encrypt your client backups to secure business critical customer data
- Added security with secure communication between HEROware server and client installations

- Industry standard Blowfish and triple DES Encryption algorithms protect customer data
- HEROware comes with a robust security management features which includes the facility to encrypt and send backups to the HEROware backup server



**HERO Secure Backup Client** allows you to consolidate point-in-time backup images on a daily, weekly and monthly basis for simplified management of all your PC and Mac's. Automatic verification and re-verification tools ensure your backups are in a known good state when recovery is necessary. HERO Secure Backup Client is an automated backup that works in the background. In the event of a disaster, its flexible recovery options allow you to complete granular recovery of files and folders or full bare metal recovery for the HERO Secure-Cloud in a matter of minutes.

HERO Secure Backup Client provides the following benefits:

- Single click selection for common backups: Email, Browser Settings, My Documents, etc - selectable with one click.



- Intuitive browser based user interface makes backups & restores easy for end users.
- Every possible scheduling option including Continuous Data Protection.
- Automatically detect changes in files and/or directories and backs up accordingly.
- Mobile users' (tablets including Ipad and laptops) data can be backed up immediately when they connect to the PC/Mac (tablets) or network.
- Powerful reporting that encompasses configurable email reporting for Client and Server.
- Intelli-Delta technology for Incremental backups. Backs up only changes in files and not the entire file every time.
- Support for large file backups including 'continue where you left off' feature.
- Robust data encryption with up to 448 bit Military strength protection - based on the blowfish algorithm.
- Support for Volume Shadow Copy for backing up Open Files in Windows XP/2003/Vista/Win7.
- Replication server functionality supports replicating the backup server and easy restores in case of disaster recovery scenarios.
- Support for backing up multiple versions of the same file with time stamps for easy

restores. HERO Secure Backup Client also supports additional full backups.

- Supports every form of Disk-to-Disk Data Backup, including remote data backup.
- Local to Remote Server Data Migration (First backup taken locally, thereafter incremental backups done online)

### **SECURE-Cloud**

**HERO Secure-Cloud** is part of HEROware's unique offering in that all the data and images on the Healthcare Facilities servers and desktops are copied to the HERO-DefenderRx and then backed up again to a SAS 70 Tier 2 Datacenter that has met all the stringent HIPAA rules and regulations. This allows all of the Healthcare Facilities data that is on their servers and desktops to be protected and available at all times (HIPAA rule). Because backups run in the background of the system and are sent to the Secure-Cloud for full redundancy (they are fully compressed and encrypted in transit), they have little or no impact on the desktop's performance or Internet connectivity, and are non-disruptive. Restoring files can be accomplished with just a few clicks of the mouse by the individual who is designated as having overall responsibility for the security of a Healthcare Facilities EPHI.

Using Secure-Cloud, the user simply chooses the files, folders or revisions that he or she wants to backup by folder or file name. The data will then be



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encrypted, compressed, and then sent to the HERO Secure-Cloud. A password is required to restore any files, thus, preventing unauthorized restores, as per the HIPAA Security Rule.

In the event of a complete system failure, a full recovery of the user's backed up data can be initiated in just minutes. The recovery procedure can be performed on any Windows based computer - not just the computer where the data was originally backed up. The user can simply download and reinstall the software, enter his or her username and password, and then enter the encryption key. Once the software installation is complete, the file catalog can be accessed (the list of all of the files backed up) which will allow the user full control to restore their data.

HERO Secure-Cloud also allows for 7 years of HIPAA compliant archiving of emails, files and folders for audits and instant email recovery in case of email loss. The customer owns all of the data when it's stored in HEROware's datacenters. Since all data is sent in an encrypted format with the user's secure password, HEROware has no authority or access to modify or inspect any of the customer's data.



**MS Exchange Backup (optional)**-HEROware's comprehensive approach to backup management now allows you to execute your Exchange Server backup's right down to the 'Mailbox level'. Most critical among all backups are the customer's server backups – thanks to HEROware's MS Exchange backup facility, you can handle that right down to the individual mailboxes level for all your customers' MS Exchange servers. Typical mail box restoration speeds depends on the size of the mailbox data and size. A typical mail box of 2 GB in size takes 10 - 15 minutes and a typical mail store takes anywhere between 45 minutes - 1 hour for restoration.

HEROware's Exchange Server Backup plug-in uses the ESE API to backup Storage Groups and Mail Stores. Features include:

- Optimal use of dump files for local storage: the dump file is compressed and automatically purged after use
- Support for Storage Group level and Mail Store Level backup
- Straight through Restore of Exchange Server backup



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- Comprehensive Backup & Restore report of Exchange Server backup is available
- Detailed Exchange Server Backup & Restore email reports available

Besides HEROware’s refreshing user interface, a comprehensive approach also enables us to leverage powerful components of HEROware’s core solution and apply them to Exchange Server backups. For example, data compression with the powerful ZLIB algorithm provides excellent compression ratios (Pictures, and videos don’t compress much compared to regular files, exchange mailboxes etc. In general, if you backup an assorted environment of files, you can see a compression ratio of around 50%). HEROware’s military strength encryption (up to 448 bits) with the Blowfish algorithm ensures your data is always protected, and incremental backups capture byte level changes in your databases using our Intelli-Delta technology based on the proven and powerful RSYNC algorithm.

- Easy to backup facility for all Outlook items.
- Emails, notes, schedules etc.
- Schedule Outlook backup from a directory listing of your Outlook account.

The first things that require to be backed up are the critical data that reside in the form of emails and scheduling items – typically in the form of Outlook. HEROware supports Microsoft Outlook, Windows



Mail (on Vista) and Outlook Express backups. HEROware supports MS Exchange backups in Windows 2000 Server, 2003 Server & Small Business Server installations. MS Exchange 2007 backups are supported as well as Windows 2008 SBS too.



### **Single-Screen Server Monitoring with HEROware-RMM, powered by Kaseya**

The HERO-RMM Dashboard is included with every HEROware device and provides the ability to monitor the health of the HERO-DefendeRx and DefendeRx+ on one screen. The screen displays red, yellow or green visual indicators of status and is updated continually based on the monitoring interval selected by the user. HERO-DefendeRx servers present in the management console are imported into the Dashboard to let you quickly and easily begin monitoring your protected servers. The Dashboard provides one-click sort and filter for monitored production servers.

With HERO-RMM you now receive event notifications via email for immediate awareness of possible breaks in service levels. Email alerts can be configured with recipients for each server, each having its own event notification level (informational, warning, error). The email message includes useful information in the subject line, including server name where the event occurred,



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the error level and code. Administrators can easily manage events via email clients by sorting or filtering by these events, then choosing which ones require attention.

HERO-RMM provides over 65 reports and statistics about your replication environment that lets you know what is happening on a HERO-DefendeRx server, all from a single interface. Reports include most recent replications, the amount of replications, failovers, downed systems, and other useful statistics for ensuring adequate data protection.



HEROWare Secure-Cloud integrates with the Professional Service Automation tool ConnectWise to create Service Tickets in ConnectWise when, for example, a backup or a restore fails in the HEROWare backup server.

Select the modules for which you want the backup server to create Service Tickets in ConnectWise.

- **Backup** – Creates a service ticket when a backup fails.
- **Restore** – Create a service ticket when a restore fails or completes partially.
- **Replication** – Create a service ticket when a replication fails, completes successfully or when it completes partially.



- **Disk Usage** – Create a service ticket if the used space exceeds the allotted space or reaches 80% of allotted space at server, customer or client level.
- **License** – Create a service ticket when there is shortage in available licenses for next month at server level or if the trial period for a client expires.



HEROWare Secure-Cloud integrates with Autotask to create Service Tickets in Autotask when, for example, a backup or a restore fails in the HEROWare backup server.

The following outsourcing security levels are available:

- **None:** No access to any outsourcing functions or views.
- **Allow Outsourcing:** Ability to outsource tickets. No access to Dashboard.
- **Allow Partner Management:** Ability to outsource tickets, accept or decline tickets, view Dashboard, and manage partners.
- **Allow All:** Ability to outsource tickets, view dashboard, manage partners, accept or decline tickets, and view financial information. Think of users with this permission set as "outsource administrators."