



# How to Build a Local Business Availability Solution: Physical Servers

The Intronis ECHOplatform offers the ability to recover physical server workloads within minutes after failure by launching new application instances and connecting these to application data on local backup storage. By design, these services can be deployed using off-the-shelf hardware that suits your business model and your clients’ environments. Unlike other platforms, the Intronis solution requires no proprietary hardware, and thus offers high flexibility and margin potential.

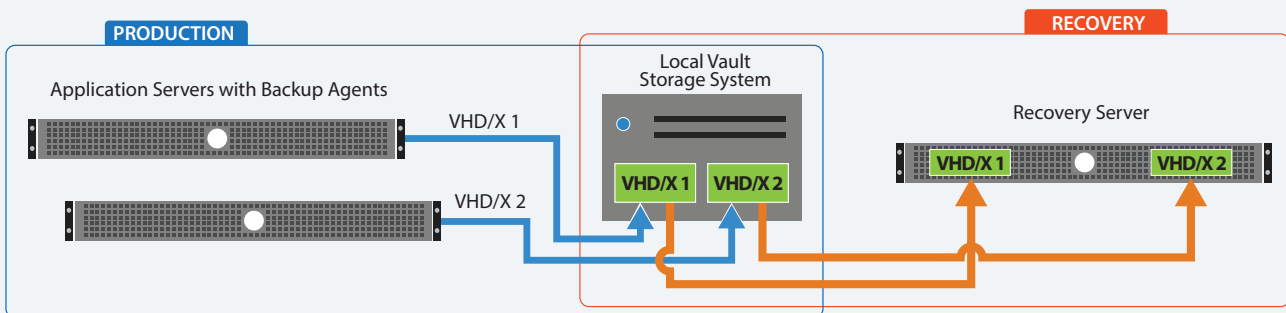
The following is (a.) an overview of the functional components of this local storage architecture, (b.) a brief explanation of the role of each component, and (c.) recommended technical specifications.

(Note: For virtual environments, please refer to similar Configuration Guides for Microsoft Hyper-V and VMware vSphere.)

## Business Availability Service Options for Physical Servers

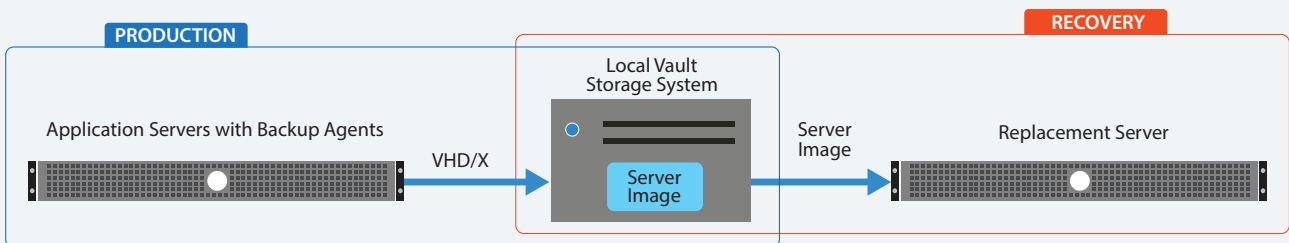
Intronis ECHOplatform supports two recovery services designed to maximize business availability for physical servers: **Rapid Recovery for Imaging** and **Bare Metal Restore (BMR)**.

### Rapid Recovery for Imaging



**Rapid Recovery for Imaging is recommended for applications with Recovery Time Objectives (RTOs) within minutes. This service uses Microsoft Hyper-V virtual machines (VMs) to run applications connected to image-based backup data in the event of server failure.**

### Bare Metal Restore



**Bare Metal Restore (BMR) is recommended for applications with RTOs within hours. BMR allows image-based server backup data to be applied to new or repaired – including similar or dissimilar – server systems.**





## Local Vault Storage



The function of the **Local Vault Storage System** is to maintain and protect image-based backup data. This data will include a mix of recent and historical image data. In a **Rapid Recovery** scenario, a new Hyper-V VM is launched on a **Recovery Server**. This VM connects directly with image data on the storage system.

To serve these functions effectively, we recommend the following storage system specifications:

Standard Workloads (up to 10 VMs)	Mission-Critical Workloads
SATA or NL-SAS, RAID 5 or RAID 1	SAS, RAID 6

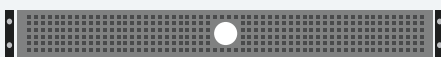
## NAS Products

For maximum flexibility and economy, the Intronis ECHOplatform is designed to work with the majority of NAS systems currently on the market. Certain models, however, may pose limitations when used with **Rapid Recovery** due to varying support for Microsoft VHD/X virtual disk formats. Because products may be subject to change, we recommend testing all NAS products in controlled environments prior to production deployment.

The following NAS products have been tested and are currently supported for use with **Rapid Recovery**.

Vendor	Model	Notes
QNAP	TS-453 Pro	Use 512/512e disks
Buffalo	TeraStation TS1200D	Use 512/512e disks

## Recovery Server



To ensure the fastest time to recovery, each **Rapid Recovery** configuration should incorporate a server running Hyper-V. In the **Rapid Recovery** context, this server is called a **Recovery Server**. In the event that an admin activates **Rapid Recovery**, the Intronis ECHOplatform will automatically create a Hyper-V VM on the **Recovery Server** that references the image data on the storage system.

The **Recovery Server** must meet all Microsoft specifications for running Microsoft Windows Server with Hyper-V. The technical specifications provided below are for planning only; requirements can vary based upon deployment specifics.

Windows Server 2008 R2	Windows Server 2012
250 MHz per server	1000 MHz per server
Minimum single quad core processor	Minimum single quad core processor
3GB per server	5GB per server





You have three Recovery Server deployment options: (a) to keep a **Recovery Server** powered on at all times to enable recoveries within as little as 15 minutes; (b) procure a **Recovery Server** after a failure occurs; (c) provision a new VM on an existing Hyper-V server. **Rapid Recovery for Imaging** supports each of these deployment options to enabling you to choose the right one for your clients.

**BMR** recoveries do not require **Recovery Servers**, since they involve recovering server image data onto new or repaired server hardware. Refer to technical and other specifications provided by the application software vendor for choosing server hardware for **BMR** recoveries.

(Note: Hyper-V Rapid Recovery supports production servers running Windows 7, Windows 8.1, Windows Server 2008 R2, Windows SBS 2011, Windows Server 2012, and Windows Server 2012 R2.)

## Technical Support



You can find additional technical resources on the Knowledge Base at Intronis Essentials: [Support@Intronis.com](mailto:Support@Intronis.com).

## ...> ABOUT INTRONIS

Intronis provides world-class data protection solutions for Small Businesses, delivered exclusively through the IT channel. The Intronis ECHOplatform securely protects physical and virtual data with native support for physical imaging, VMware, Hyper-V, Exchange, and SQL, all through a re-brandable central management console that integrates with major RMM and PSA tools. Offered with unlimited and fixed-fee storage pricing per SMB account, IT service providers are able to rapidly grow revenue and scale profit. Through Intronis ECHOshare, channel partners can easily expand their IT services portfolio to include tightly integrated business-grade file sync and share. Learn more at [www.intronis.com](http://www.intronis.com).

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