

EXAGRID[®]

*Hyper-converged
Secondary Storage for Backup*



Do we have to talk about Backups?

Typical Pain Around Enterprise Backup

- **Backups taking too long or failing to complete within backup window**
- **Restores take forever and/or are generally unreliable**
- **Data Protection Process too complex**
- **Inadequate Support from Existing Backup Vendor**
- **Tape Sucks but still a requirement for many due to off-site requirements**
- **Ransomware & Data Security Risks around Backup Data**
- **Existing Backup Solution Expensive to Maintain and Operate**
- **Lifecycle of Backup Solution is too Short – Forklift every 3-5 years**
- **Existing Backup Vendors force unexpected upgrades, over-provision, & nickel and dime you for licensing & agents**
- **“Islands” of Backup Data between VM, HCI, Unix, & Legacy Infrastructure**
- **Challenges around DR and Replication**
- **Your CIO tells you to move backups to The Cloud (*you know, “The Cloud”*)**



About ExaGrid

ExaGrid

- Largest independent vendor in the space
- Gartner Magic Quadrant “Visionary”
- Net Promoter Score of +73

100% focused on disk-based backup

- Highly differentiated architecture
- Winner of the most industry awards

Large customer base

- 10,000+ systems installed — worldwide
- 370+ published customer success stories



Gartner



Continued Industry Recognition

2015 - 2018



Gartner
 ExaGrid Named "Visionary" in the
 2015 Magic Quadrant for Disk Backup
 with Deduplication Appliances



2017 WINNER
SVC AWARDS
 2016 WINNER
SVC AWARDS



NETWORK computing
 AWARDS 2015
 WINNER
 THE RETURN ON
 INVESTMENT AWARD



2011 - 2014

Gartner
 "Top Emerging Vendor"
 Cool Vendor in Data Protection



Gartner
 ExaGrid Named "Visionary" in the
 2014 Magic Quadrant for Disk
 Backup with Deduplication



Selected ExaGrid Global Customers

Manufacturing Transportation / Retail



Healthcare



Banking Insurance / Law



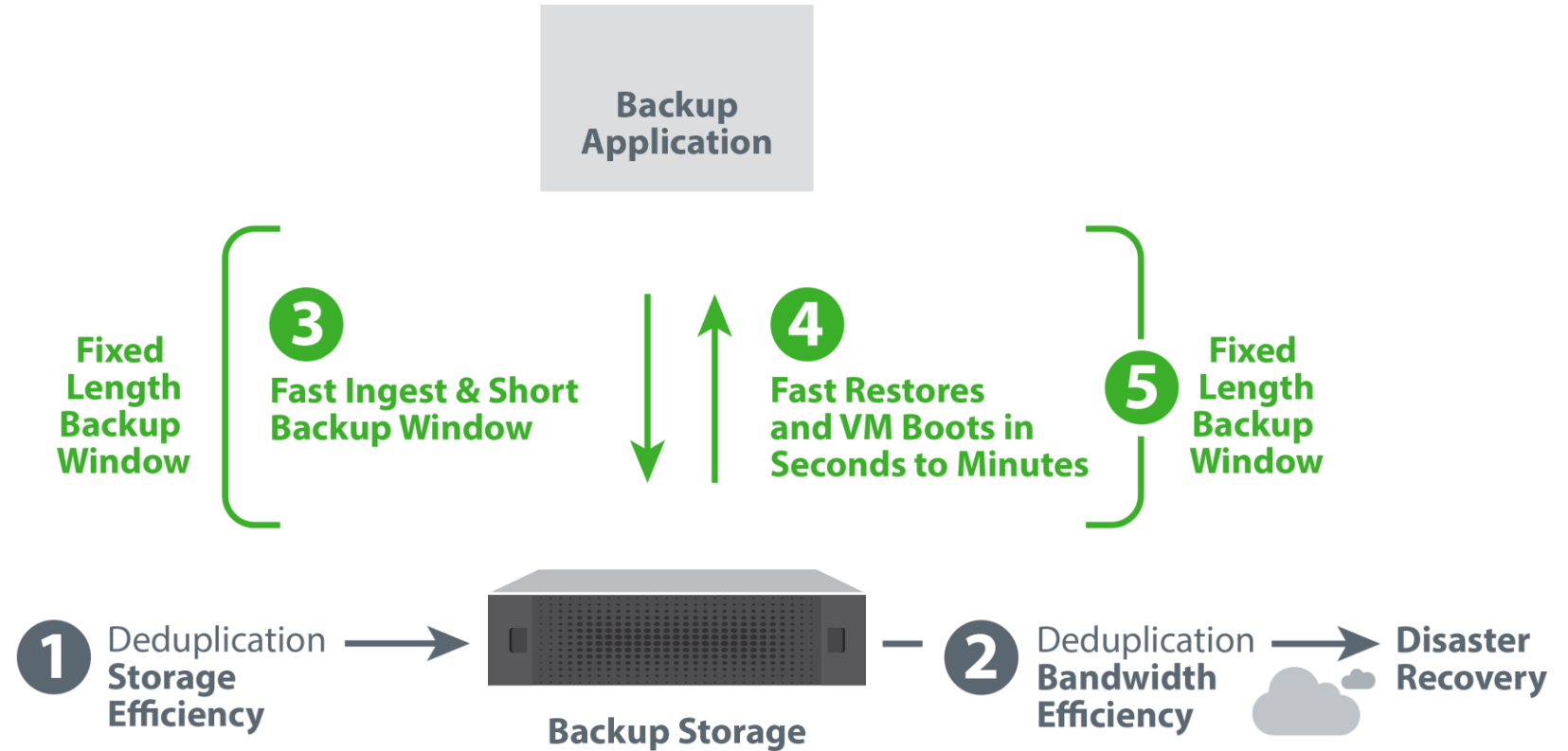
Business Services



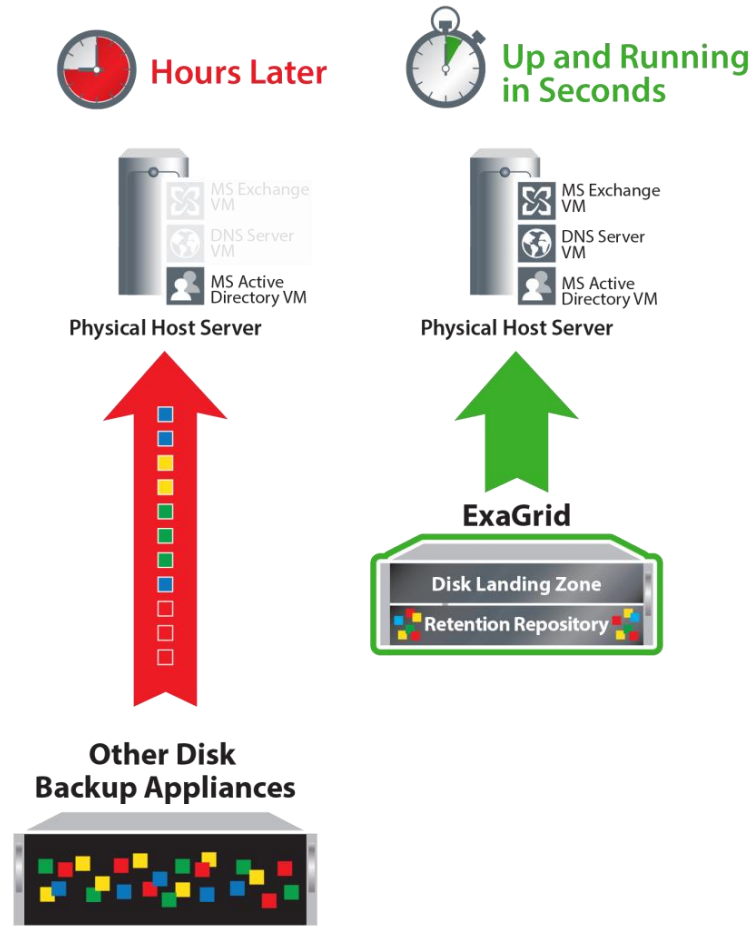
Government



5 Considerations for Hyper-converged Secondary Storage for Backup with Deduplication



Fast Restores, VM Boots in Seconds to Minutes



Unique / integrated landing zone

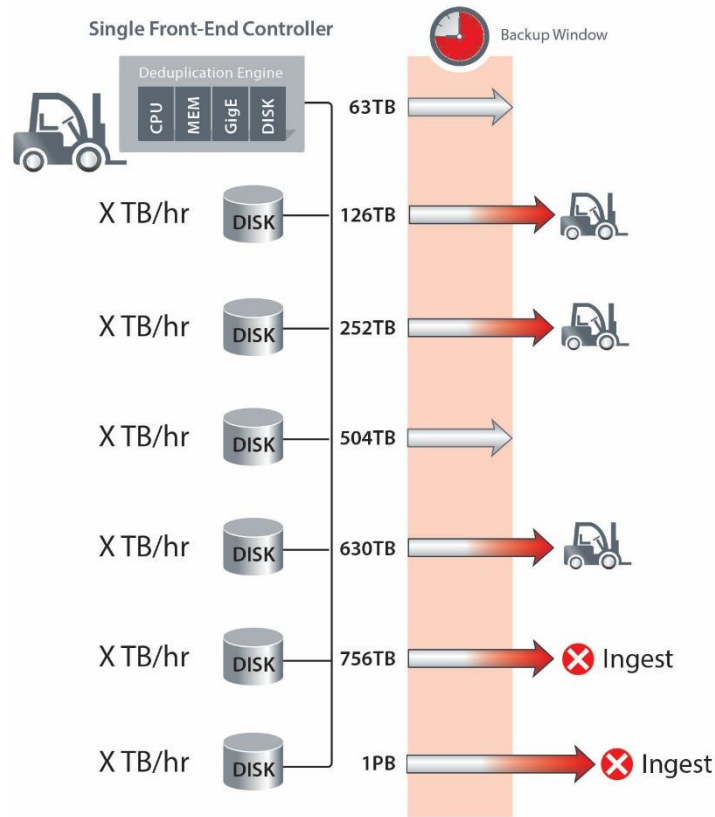
- Most recent backups are in unduplicated form
- Eliminates data rehydration

Benefits

- Restores as fast as disk
- Tape copies as fast as disk
- VM boots in seconds to minutes

Fixed Length Backup Window

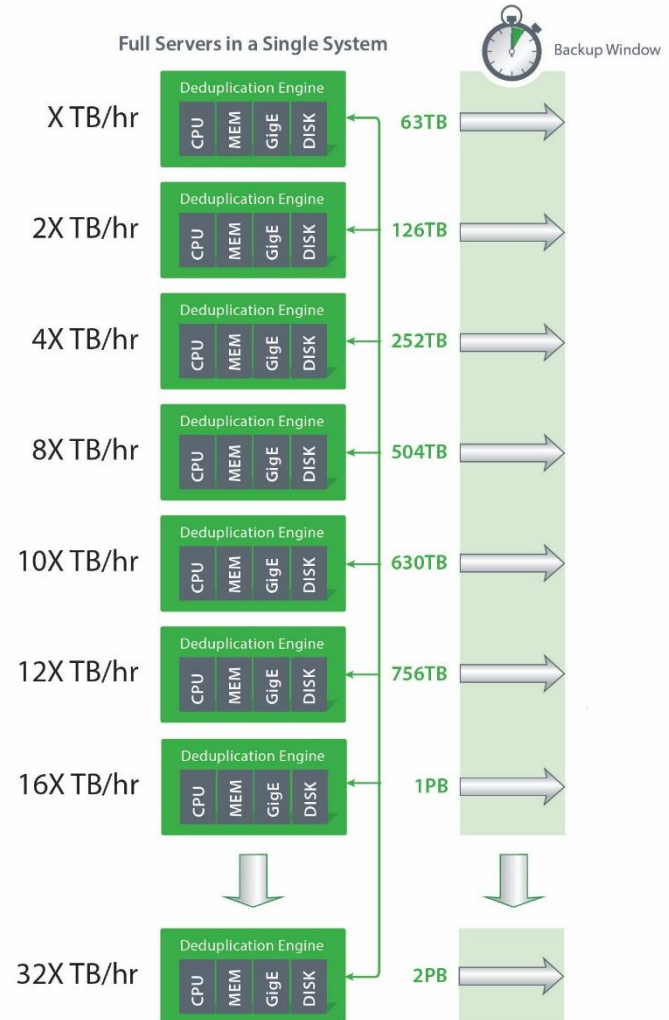
Scale-Up Architecture



Out of storage and ingest - forklift upgrade

Ingest not keeping up with storage

ExaGrid Scale-Out Architecture

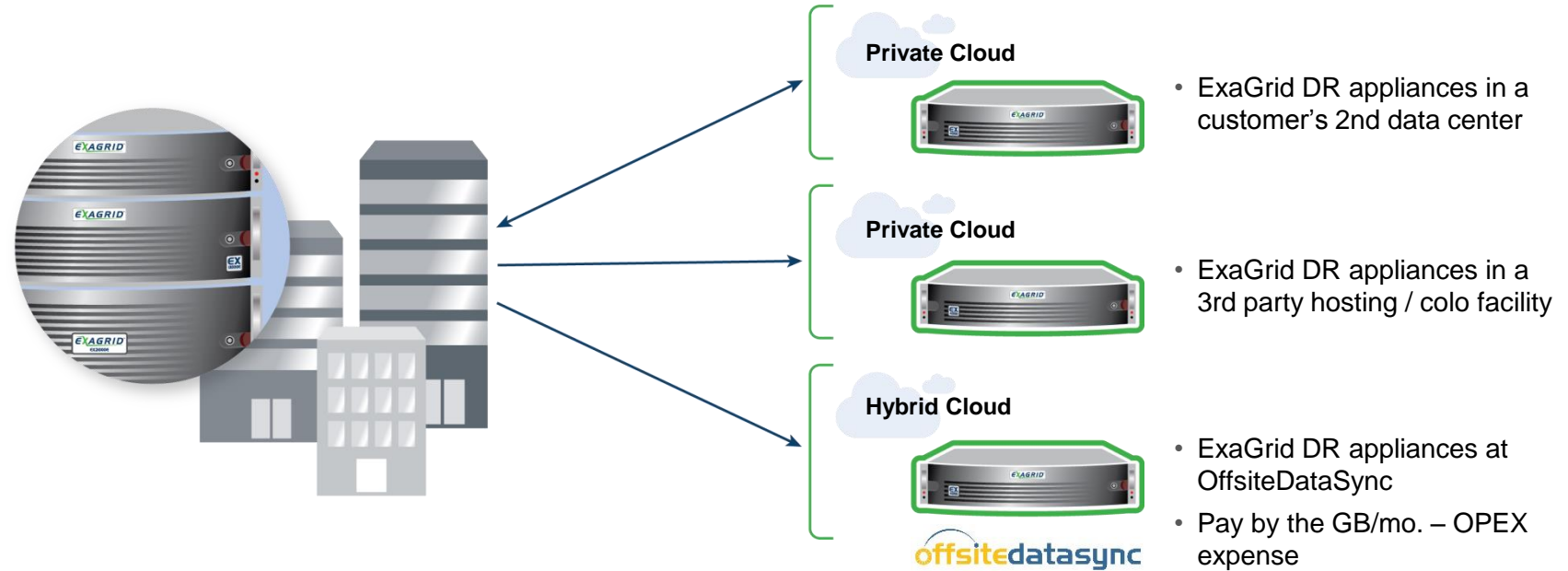


ExaGrid Appliances in a Scale-out System

32 Appliances in a Single System – 2PB Full Backup

ExaGrid Model	Usable Capacity (TB)	Capacity for Weekly Full (TB)	Max Backup Thrupt (TB/hr)
EX3000	6	3	0.72
EX5000	10	5	1.08
EX7000	14	7	2.40
EX10000E	20	10	2.40
EX13000E	28	13	2.40
EX21000E	42	21	4.32
EX32000E	66	32	7.56
EX40000E	78	40	8.00
EX63000E	126	63	13.50

DR Scenarios



- Adaptive deduplication deduplicates and replicates in parallel
- 50:1 WAN bandwidth efficiency
- Bandwidth throttle and WAN encryption for data replication
- Configure the disaster recovery site to all repository to save cost

Works with Industry Leading Backup Applications Heterogeneous Environments

Backup Applications

VERITAS Veeam HYCU
IBM DELL EMC MICRO FOCUS
STORAGECRAFT. Zerto COMMVAULT
BridgeHead arcserve Acronis

Applications Direct

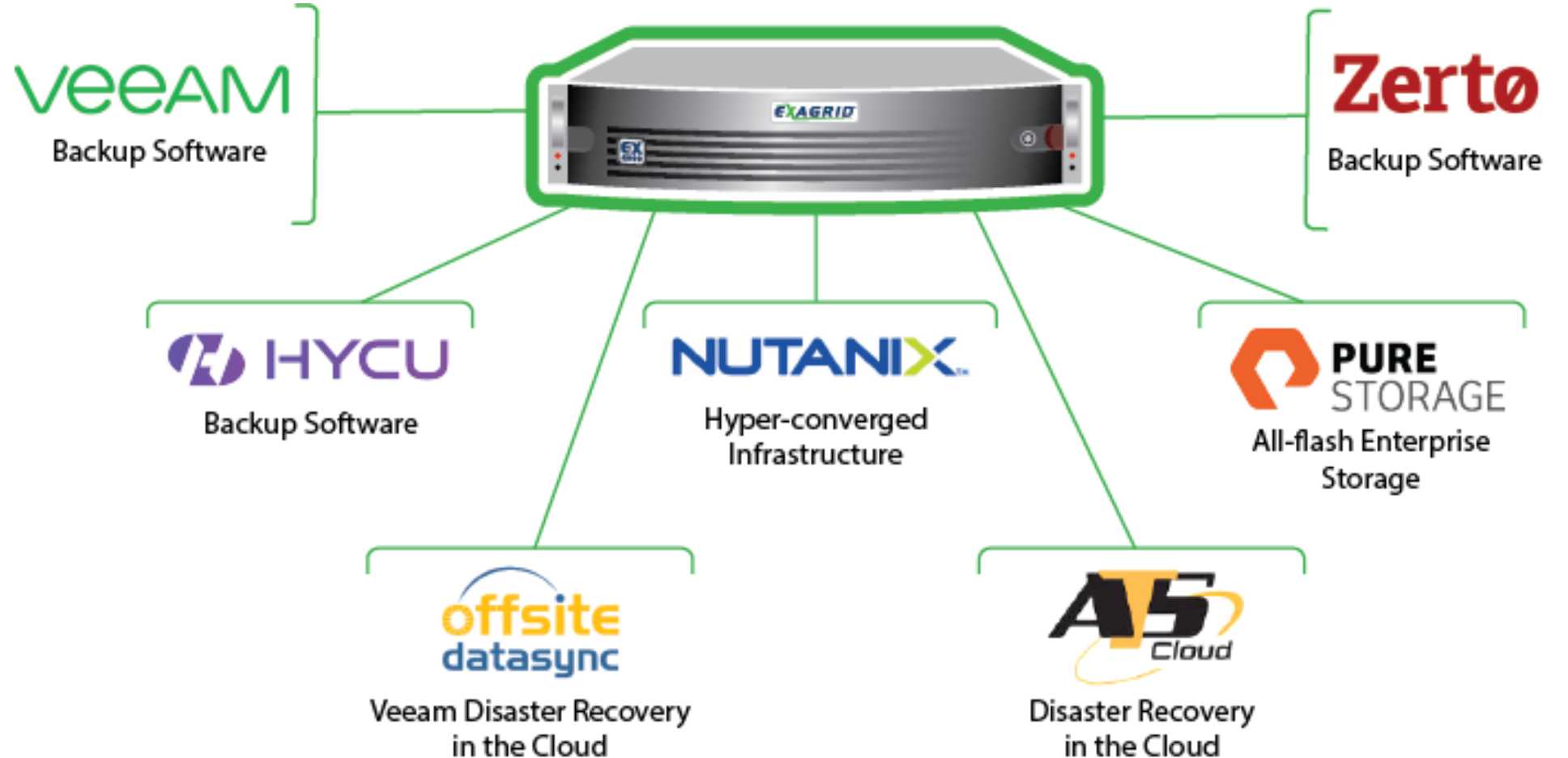
Microsoft SQL ORACLE
Oracle Dump RMAN Dump
redgate ingeniously simple tools IBM
idera

Linux/UNIX Direct TAR

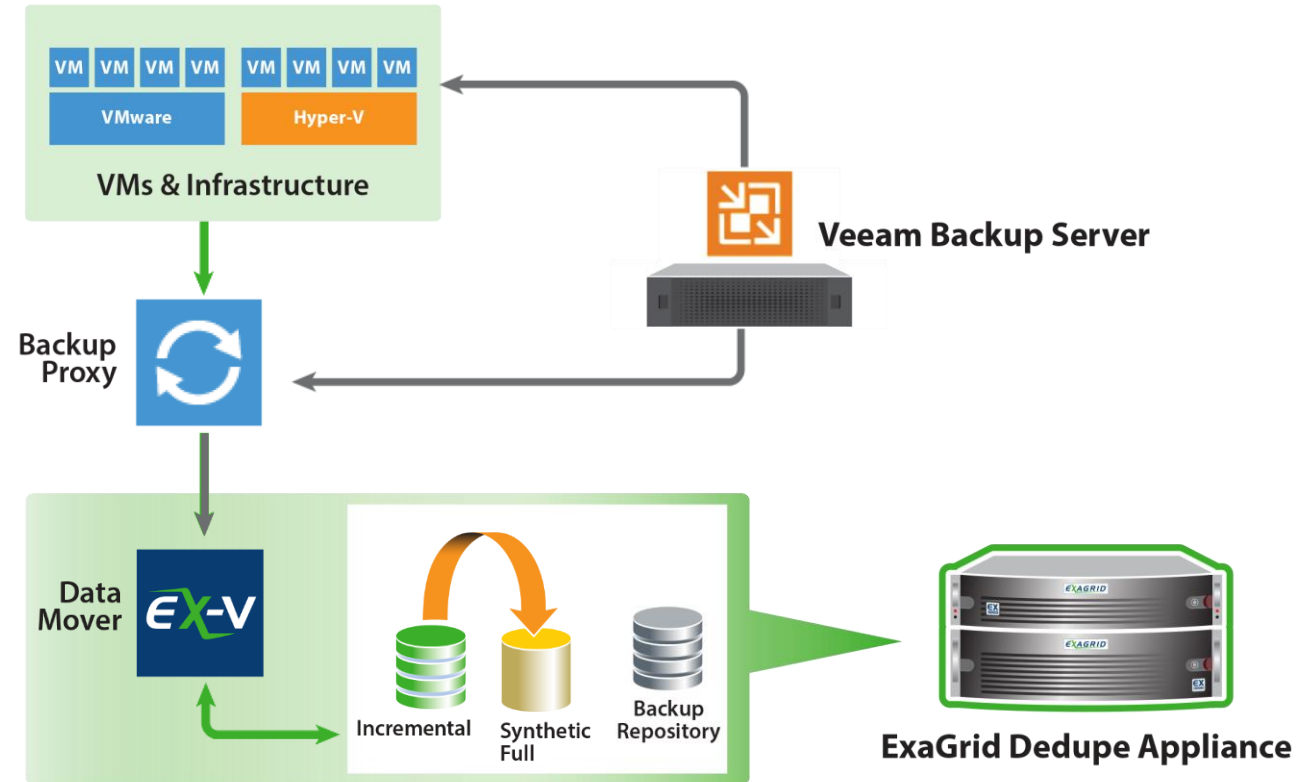
Linux
redhat
solaris



ExaGrid – Ecosystem Partners

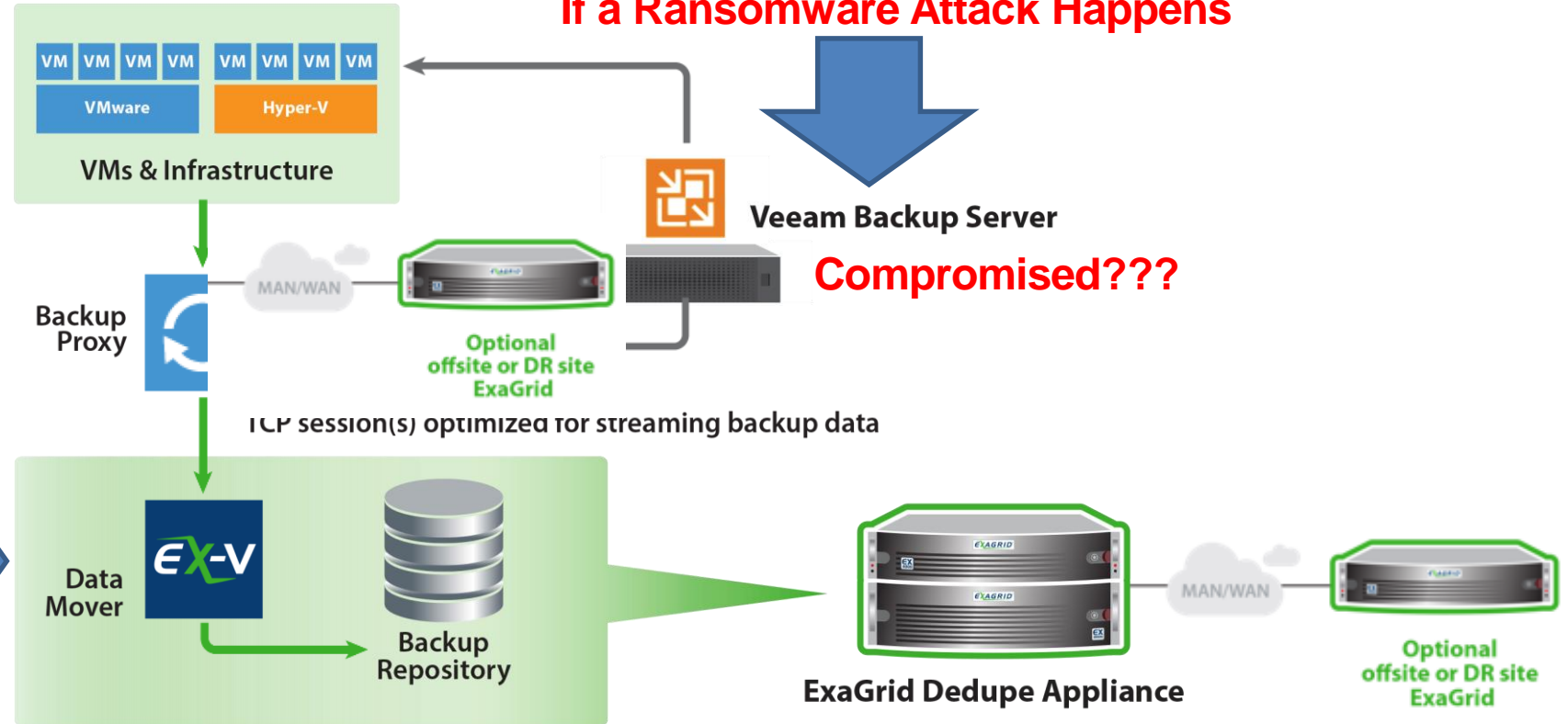


Integrated Veeam Data Mover – Faster Synthetic Fulls



Integrated Veeam Data Mover – Data Security

If a Ransomware Attack Happens

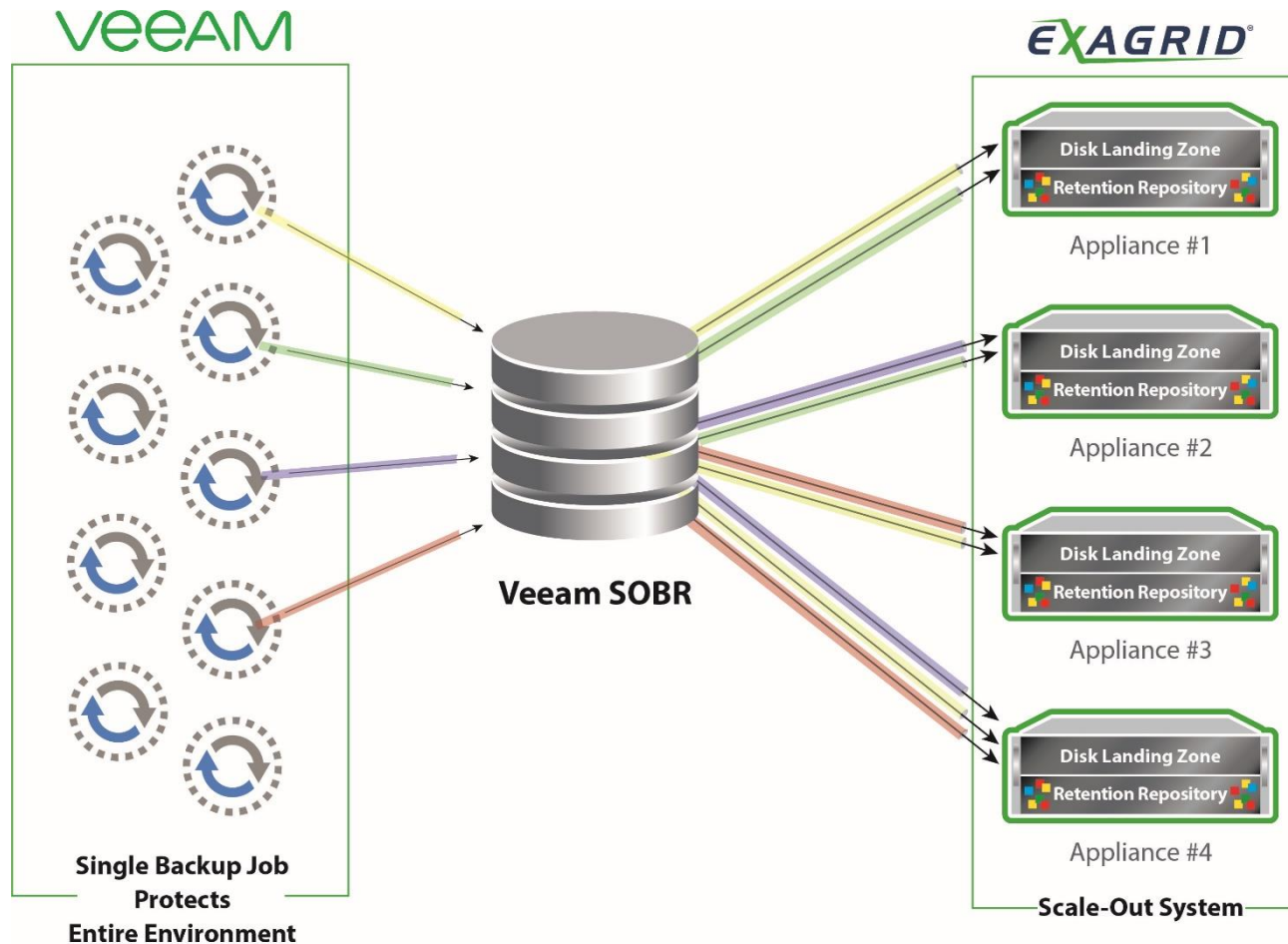


Built-in Data Security

Ransomware will have to learn the (proprietary) Veeam data mover protocol in order to get to the backup data on the ExaGrid. While not impossible, we are “reducing the ransomware attack surface” by using the data mover between Veeam and ExaGrid

End-to-End Scale-Out Backup with ExaGrid and Veeam

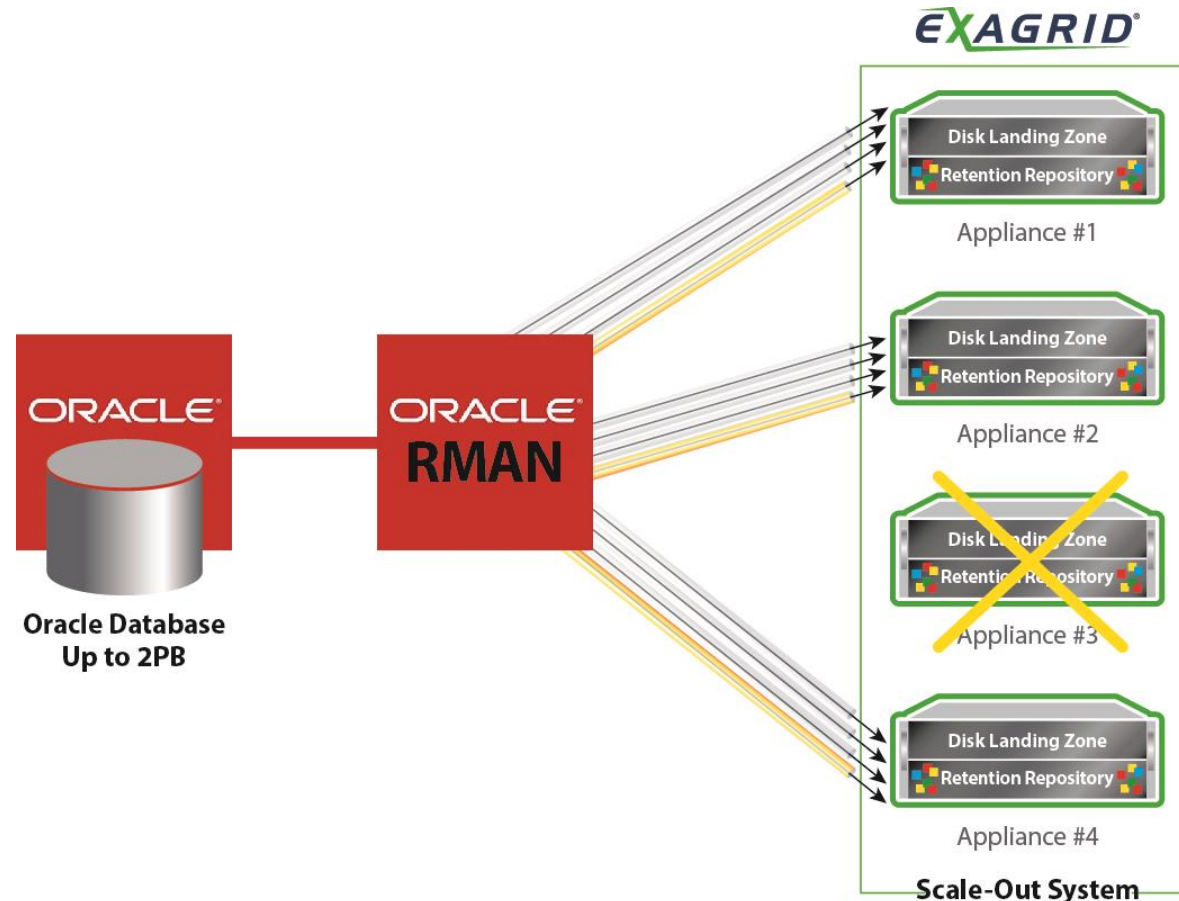
Support of Veeam Unlimited Scale-Out Backup Repository (SOBR)



- Automated job management
- Future-proof scalability with data growth – simply add another appliance
- Capacity load balancing
- Superior performance – SOBR optimizes backup streams
- 2PB full backup in a single system
- Failure tolerance – automated job redirect

Fastest Oracle RMAN Backups with Failover

Support of Oracle RMAN Channels



- Fastest backups with ExaGrid landing zone
- Fast database restore in seconds to minutes from undeduplicated data
- 2PB full database backup in a single system
- Performance load balancing
- RMAN failover if any appliance fails

Redundancy and Security

Redundant Hardware

- RAID6 with a hot spare drive guards against simultaneous disk drive failures
- Redundant power supplies
- NIC teaming

Security

- Optional data encryption at rest
 - FIPS 140-2 compliant / 256-bit AES
 - Occurs at the drive level in nanoseconds
 - Does not impact backup performance
- WAN encryption for secure data transfer

Personal Touch - Maintenance and Support

Phone and Email Support

- Assigned level 2 customer support engineer
- Support staff are subject matter experts in backup applications

Customer Installable and Serviceable

- Self-installable with phone support and WebEx
- Self-serviceable hardware replacements, next business day delivery

All Releases Provided

- Point and full releases – includes all new features
- No license fees to track or renew

Health Status Monitoring

- ExaGrid monitors and notifies

No additional charge – All included in support program



Customers give ExaGrid
NPS score of +73

Typical Pain Around Enterprise Backup

- ***Backups taking too long or failing to complete within backup window*** ✓
- ***Restores take forever and/or are generally unreliable*** ✓
- ***Data Protection Process too complex*** ✓
- ***Inadequate Support from Existing Backup Vendor*** ✓
- ***Tape Still Sucks but still a requirement – Getting slower*** ✓
- ***Existing Backup Solution Expensive to Maintain and Operate*** ✓
- ***Lifecycle of Backup Solution is too Short*** ✓
- ***Existing Backup Vendor force unexpected upgrades, over-provision, & nickel and dime you for licensing & agents*** ✓
- ***“Islands” of Backup Data between VM, Unix & Legacy Infrastructure*** ✓
- ***Challenges around DR and Replication*** ✓
- ***Your CIO tells you to move backups to “The Cloud”*** ✓

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Thank You!

From Customers who Chose ExaGrid over DD



“We compared EMC Data Domain and ExaGrid, running Veeam in parallel POCs. ExaGrid just worked better. The scale-out scalability seemed almost too good to be true, but it lived up to its hype and it was awesome!”



“The ExaGrid system was far more cost effective than the EMC offerings, and we liked its scalability and ease of use [...] Because ExaGrid was so cost effective, we were able to purchase a system that was a lot bigger than we need today for our virtual infrastructure.”



“ExaGrid had several advantages over the other approaches we considered. First and foremost, we liked that we could completely eliminate tape by installing a pair of systems capable of replicating data offsite so efficiently. We were impressed with the way the ExaGrid system backs the data up first to a landing zone before deduplication begins so backups run as quickly as possible.”

VW CREDIT, INC.

“We tested solutions from both ExaGrid vs. Data Domain side by side and chose the ExaGrid based on its approach to data deduplication and its overall simplicity. The ExaGrid also had the best price/performance.”



First National Community Bank

“I think the first question I asked after we got ExaGrid was, ‘Why isn’t everybody doing this?’ It’s the easiest solution I’ve ever used in my career!”

Walter Jurgiewicz
Systems and Desktop Services
Manager Banking Officer

Before ExaGrid

Environment

- Commvault
- D2D to NetApp

Challenges

- Managing required ‘constant tweaking’
- Weekly full backups took up to 72 hours, disrupting daily incrementals
- ‘Unacceptable’ restore times

After ExaGrid

Environment

- ExaGrid system
- Veeam

Advantages

- Over 30% time savings managing backup—‘Easiest solution in the industry’ to manage
- Longest backup job reduced from 72 hours to 14 hours
- ExaGrid support offers responsive assistance with expertise on both ExaGrid and Veeam



“ExaGrid’s deduplication with Veeam is amazing! The deduplication packs backups up in a box and puts them in a closet, and if you ever need to retrieve that backed up data, the system goes and gets it out of that closet and brings it out to you.”

Corey Johnson
Technology Analyst

Before ExaGrid

Environment

- Tape
- Quantum

Challenges

- Staff felt that both hardware and software were outdated
- Wanted to virtualize environment
- Long backup windows

After ExaGrid

Environment

- ExaGrid system
- Veeam for virtual servers
- Veritas Backup Exec for physical servers

Advantages

- Backup window cut by 30%
- ‘Amazing deduplication’ increases available retention
- ExaGrid works with multiple backup applications
- ‘Outstanding’ ExaGrid support checks in regularly, assists with updates



Concur is an SAP Company

“We have been extremely pleased with the product, customer support, and the company as a whole.”

Sean Graver
Storage Architect

Before ExaGrid

Environment

- Disk-to-disk backup with inline deduplication, backing up over 10,000 databases daily

Challenges

- Maxed out number of disk trays; single controller
- Couldn't scale: took 2-1/2 days with D2D system to deduplicate one day's worth of data
- IT reverted back to tape backups
- Restores slow, difficult, and expensive

After ExaGrid

Environment

- ExaGrid 80TB system backs up 1PB of data

Advantages

- Deduplication ratios average 27:1
- Backups meet goals, scale using scale-out
- Restore speeds are fast; full copy of most recent backup in high-speed landing zone
- Can add capacity in modular increments to pay as they grow



“We compared EMC Data Domain and ExaGrid, running Veeam in parallel POCs. ExaGrid just worked better. The scale-out scalability seemed almost too good to be true, but it lived up to its hype and it’s awesome!”

Mike Le
System Administrator II

Before ExaGrid

Environment

- Quest vRanger for VMs
- IBM Spectrum Protect (TSM) for Microsoft Exchange, SQL, and physical boxes
- Quest DR Series appliances

Challenges

- Using numerous backup applications caused 24-hour backup window
- Replication couldn’t keep up with daily incrementals
- As storage reached 85-90%, performance lagged
- Installing additional DR Series appliances did not add more CPU, causing strain on bandwidth

After ExaGrid

Environment

- ExaGrid system
- Veeam

Advantages

- Backup window decreased by over 65%
- 70% less staff time spent on daily backup management
- ExaGrid-Veeam combined deduplication maximizes storage capacity
- Now when appliances are added, Hologic gets the additional CPU needed



“With ExaGrid support, everything is easy and straightforward ... I always have someone to reach out to who has knowledge of the product as well as our environment, making my job that much easier.”

Henry Li
Server Support Analyst

Before ExaGrid

Environment

- Tape
- Veritas NetBackup Media Server Deduplication Storage Pool (MDSP)

Challenges

- Continued data growth driving spiraling
- Future scalability and footprint
- Painfully slow restores
- Disaster recovery

After ExaGrid

Environment

- Two-site ExaGrid system
- Veeam Backup & Replication

Advantages

- Instantly recover and run a VM from the ExaGrid system
- ExaGrid further deduplicates the Veeam deduplicated backups, approximately 150TB full backup
- “Never” a problem getting to Welch’s assigned customer support engineer
- “Seamless” future growth



“ExaGrid [...] gave us the offsite backup capability that we needed for SOX compliance. ExaGrid allows us to manage our retention offsite as well, and we’re able to keep the amount of retention that’s required by our legal team.”

Yudesh Gosine
Senior Systems Administrator

Before ExaGrid

Environment

- DAT tapes
- Dell tape loader
- Veritas Backup Exec

Challenges

- Manual tape process was time-consuming
- Poor reliability of backup continuity
- Restores took between hours and days
- Spirit Airlines wanted to virtualize, needed new solution

After ExaGrid

Environment

- ExaGrid system
- Veeam

Advantages

- ExaGrid offers deduplication not available with tape
- Time spent managing backups reduced by up to 80% per week
- Restores take mere seconds
- Customer support is ‘guiding light’ even for non-ExaGrid related issues
- ExaGrid replicates to DR site, which is needed for SOX compliance



“The combination of ExaGrid and Veeam delivers the fast restores, data deduplication, and backup performance we were looking for... I like products like this.”

Pat Hancock
Senior IT Analyst

Before ExaGrid

Environment

- 99% virtualized
- Backed up to disk using Veeam

Challenges

- Continued data growth driving spiraling
- Future scalability and footprint
- Painfully slow restores
- Disaster recovery

After ExaGrid

Environment

- Two-site ExaGrid
- Veeam

Advantages

- Instantly recover and run a VM from ExaGrid
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