# ExaGrid – Tiered Backup Storage with Ransomware recovery

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# About ExaGrid

## Company Highlights

- 100% focused on backup storage
- Shipping for over 20 years
- Largest independent vendor in the space
- Only Tiered Backup Storage approach
- High Net Promoter Score of +81
- Winner of the most industry awards

## Large customer base

- Over 4,200 customers - worldwide
- Appliances certified in over 132 countries
- Installed in 80+ countries
- In-theater customer support worldwide
- 300+ published customer success stories

# Recognition from Industry Awards

| STORAGE AWARDS THE STORIES | NETWORK computing AWARDS | SDC AWARDS |
|---|---|---|
| **2023** JUNE | MAY | NOVEMBER |
| ★ Enterprise Backup Hardware Vendor of the Year<br>★ Immutable Storage Company of the Year | ★ Bench Tested Product of the Year<br>★ Company of the Year<br>★ Storage Product of the Year | ★ Backup/Archive Innovation of the Year<br>★ Storage Company of the Year |
| **2022** JULY | JULY | NOVEMBER |
| ★ Enterprise Backup Hardware Vendor of the Year | ★ Bench Tested Product of the Year<br>★ Company of the Year<br>★ Storage Product of the Year | ★ Storage Company of the Year<br>★ Vendor Channel Program of the Year |
| **2021** OCTOBER | OCTOBER | NOVEMBER |
| ★ Enterprise Backup Hardware Vendor of the Year<br>★ Immutable Storage Company of the Year | ★ Bench Tested Product of the Year<br>★ Company of the Year<br>★ The Return on Investment Award<br>★ Storage Product of the Year | ★ Storage Company of the Year<br>★ Storage Hardware Innovation of the Year<br>★ Vendor Channel Program of the Year |

# Selected ExaGrid Global Customers

| Manufacturing Transportation / Retail | Healthcare | Banking Insurance / Law | Business Services | Government |
|---|---|---|---|---|
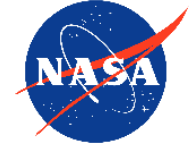
# Legacy Backup Storage Options

**Primary Storage - HDD/SSD**

Dell, HPE, NTAP, Pure, Others

**Inline Deduplication Appliance**

Dell EMC Data Domain
HPE StoreOnce, Veritas NBU appliances

**or**

**Pros**
- Fast for backups
- Fast for restores

**Cons**
- Expensive for retention
- Vulnerable to ransomware

**Pros**
- Lower disk usage

**Cons**
- Slow for backups
- Slow for restores
- Not scalable
- Expanding backup window
- Vulnerable to ransomware
- Forklift upgrade
- Product obsolescence

# The Best of Both Worlds: ExaGrid Tiered Backup Storage

**Landing Zone**

High Speed Backups & Restores

**Repository Tier**

Current Backup & Retention Data – Deduplicated for Low Cost

**Landing Zone**

EXAGRID

**Repository Tier**

**Pros**

- Fast for backups
- Fast for restores
- Adaptive deduplication – storage savings
- Ransomware recovery solution
- Scale-out
  - Fixed-length backup window
  - No forklift upgrade
  - No planned product obsolescence
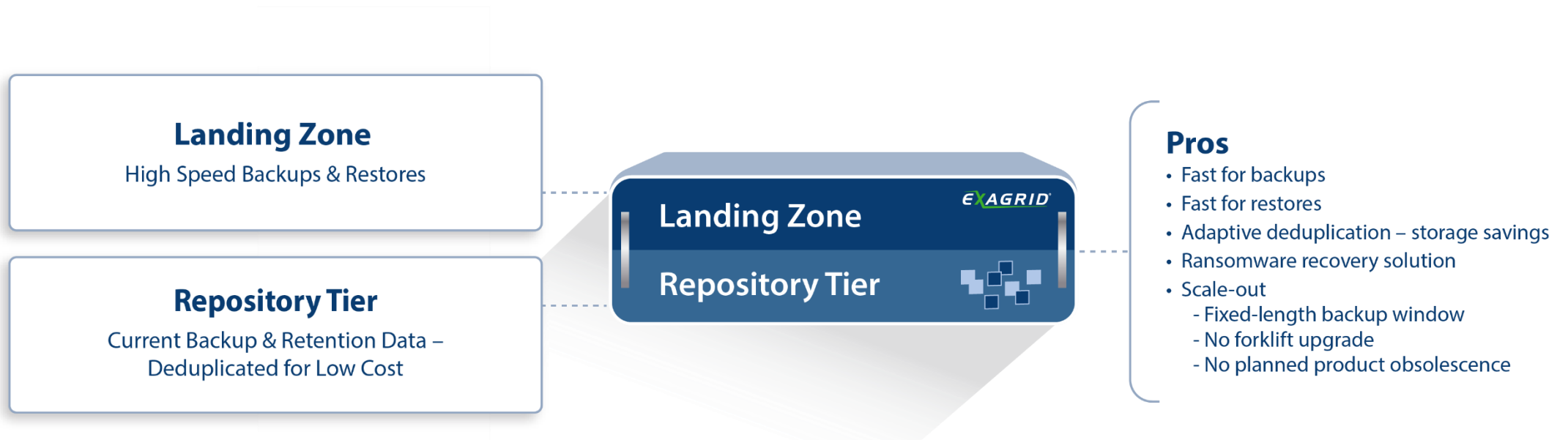
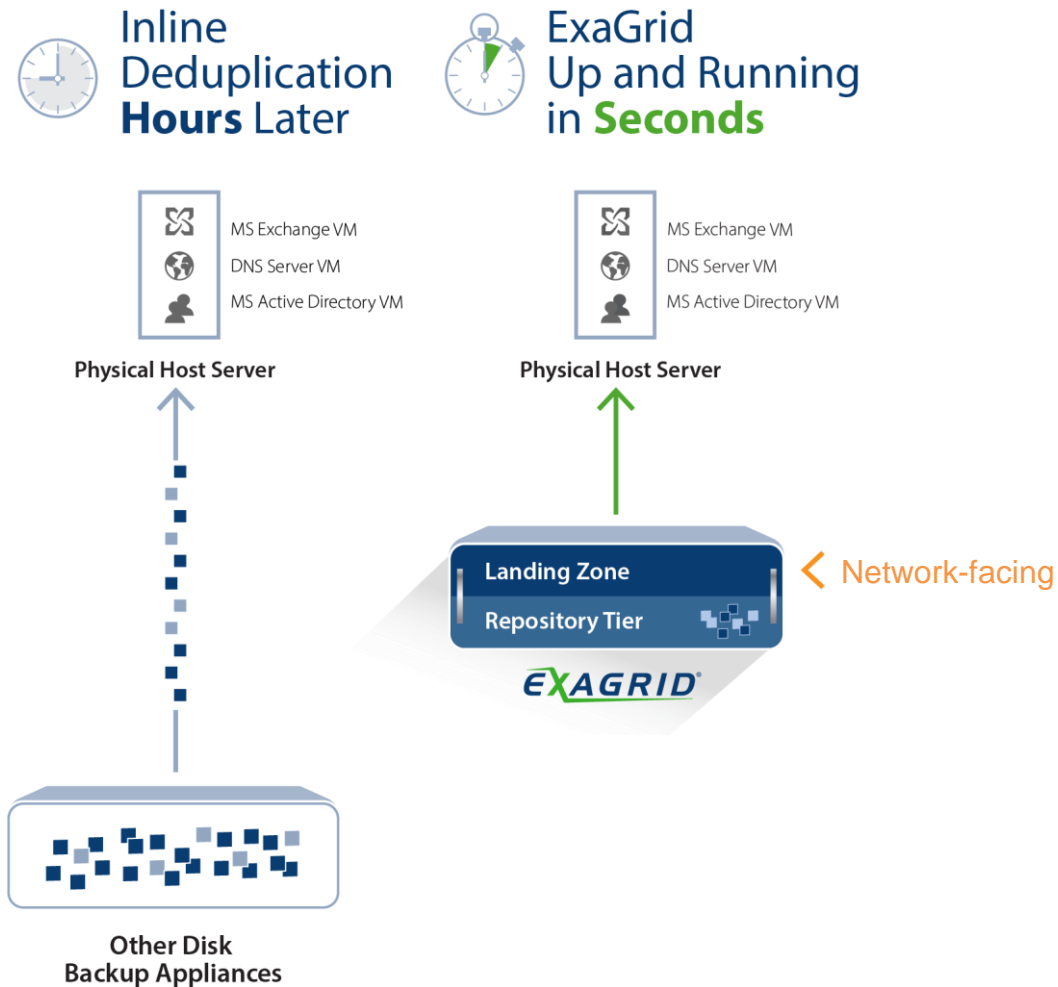# ExaGrid: Fastest Backups & Shortest Backup Window
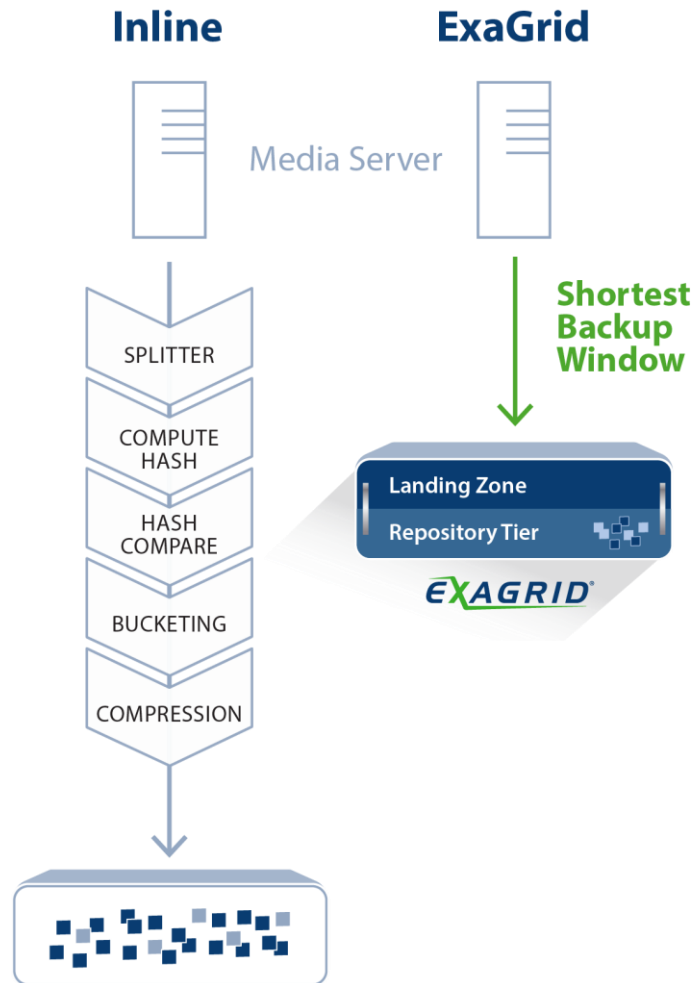


## Disk-cache Landing Zone

- Write backups directly to disk
- Avoid compute-intensive deduplication
- Adaptive Deduplication

## Benefits

- No inline processes to slow backups
- Fastest backups
- Shortest possible backup window
- Strong offsite RPO

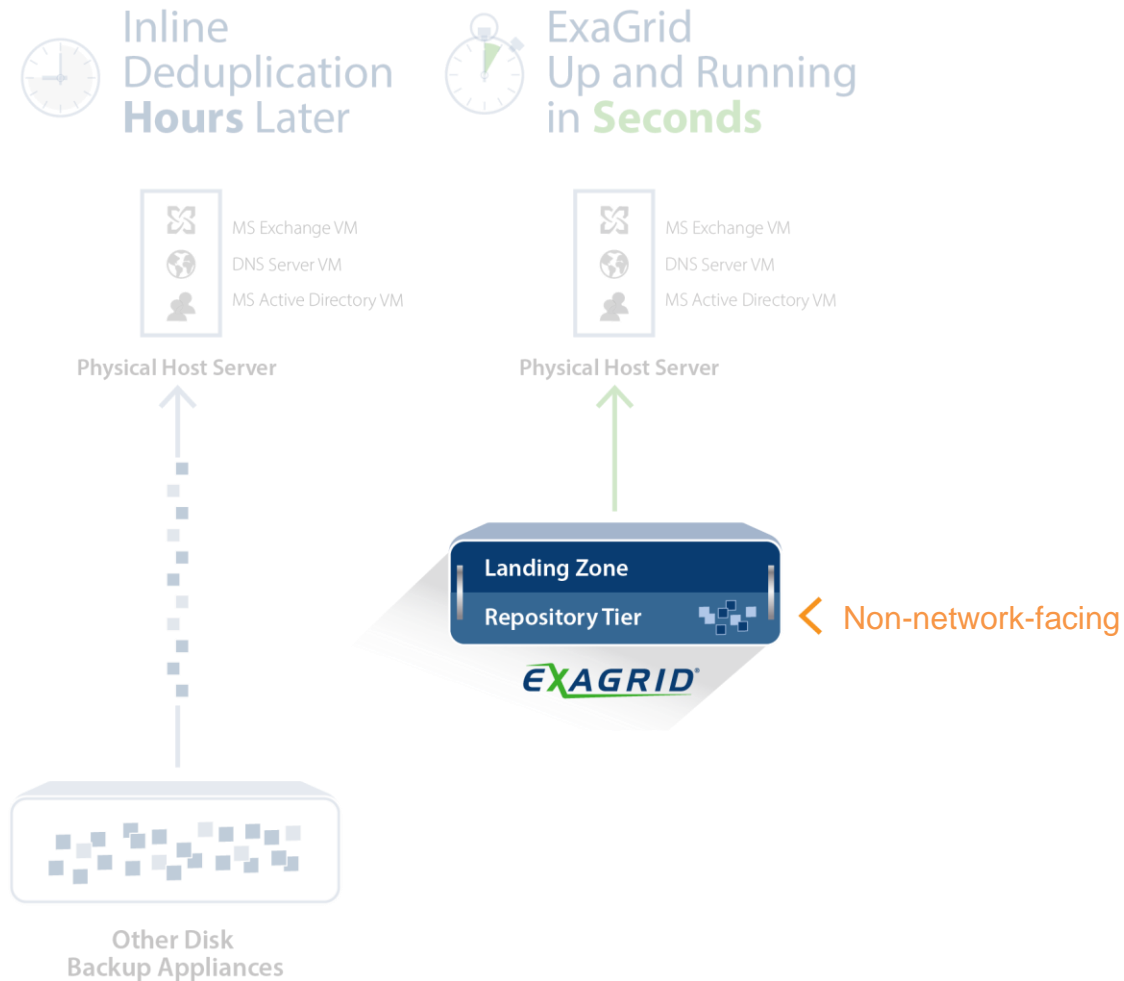# Fast Restores, VM Boots in Seconds to Minutes



## Disk-cache Landing Zone

- Most recent backups are in undeduplicated form
- Eliminates data rehydration
- ExaGrid's unique approach resynthesizes Veeam Fast Clone synthetic fulls for the fastest restores

## Benefits

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

# Non-network-facing Repository Tier



Inline
Deduplication
**Hours** Later

MS Exchange VM
DNS Server VM
MS Active Directory VM

Physical Host Server

ExaGrid
Up and Running
in **Seconds**

MS Exchange VM
DNS Server VM
MS Active Directory VM

Physical Host Server

Landing Zone
Repository Tier

**< Non-network-facing**
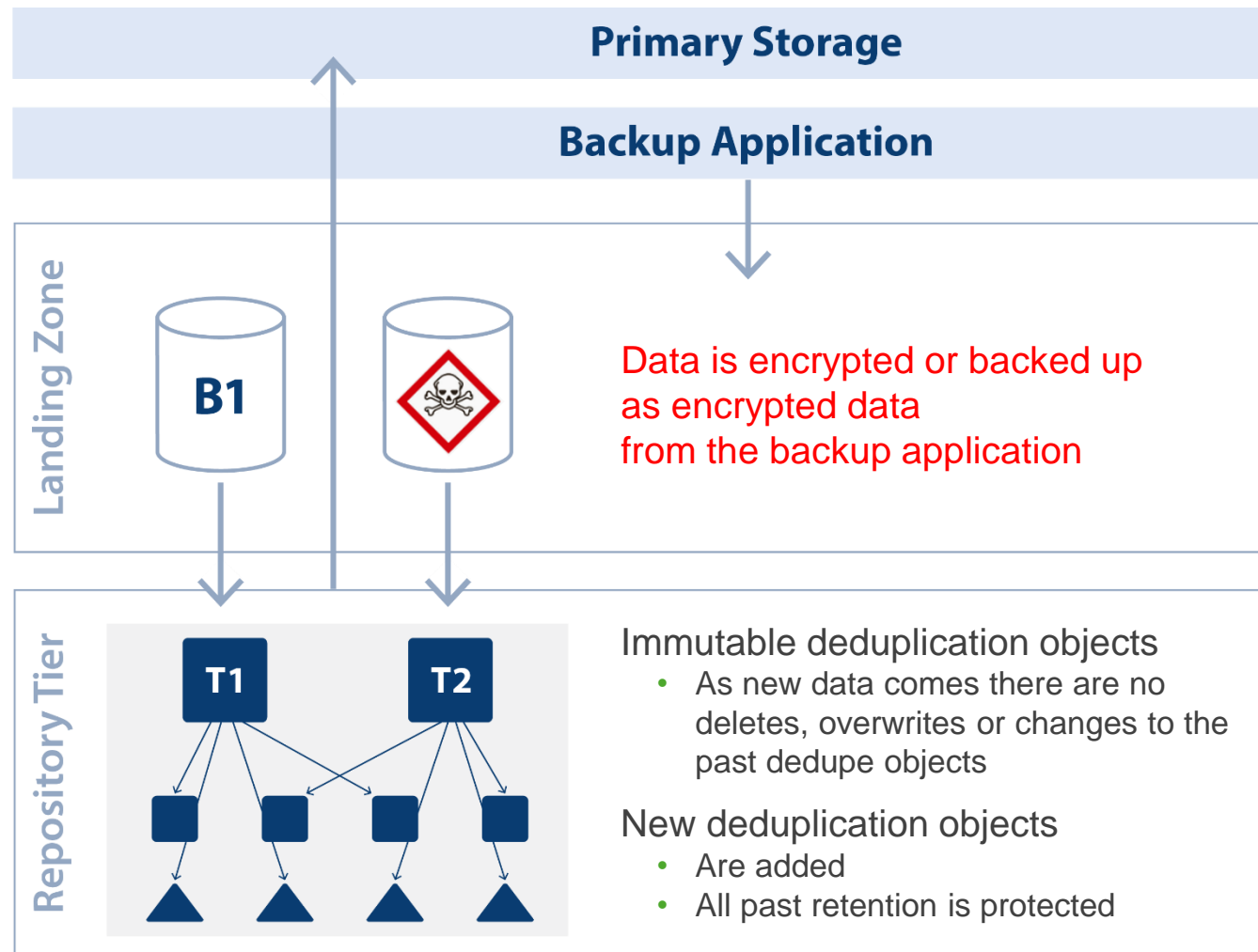
Other Disk
Backup Appliances

## Second Repository Tier

- Long-term retention
- Deduplicated data

## Benefits

- Low-cost long-term storage
- Ready for ransomware recovery
  - Non-network-facing tier
  - Immutable objects
  - Delayed deletes
  - Alert on deletes over set threshold
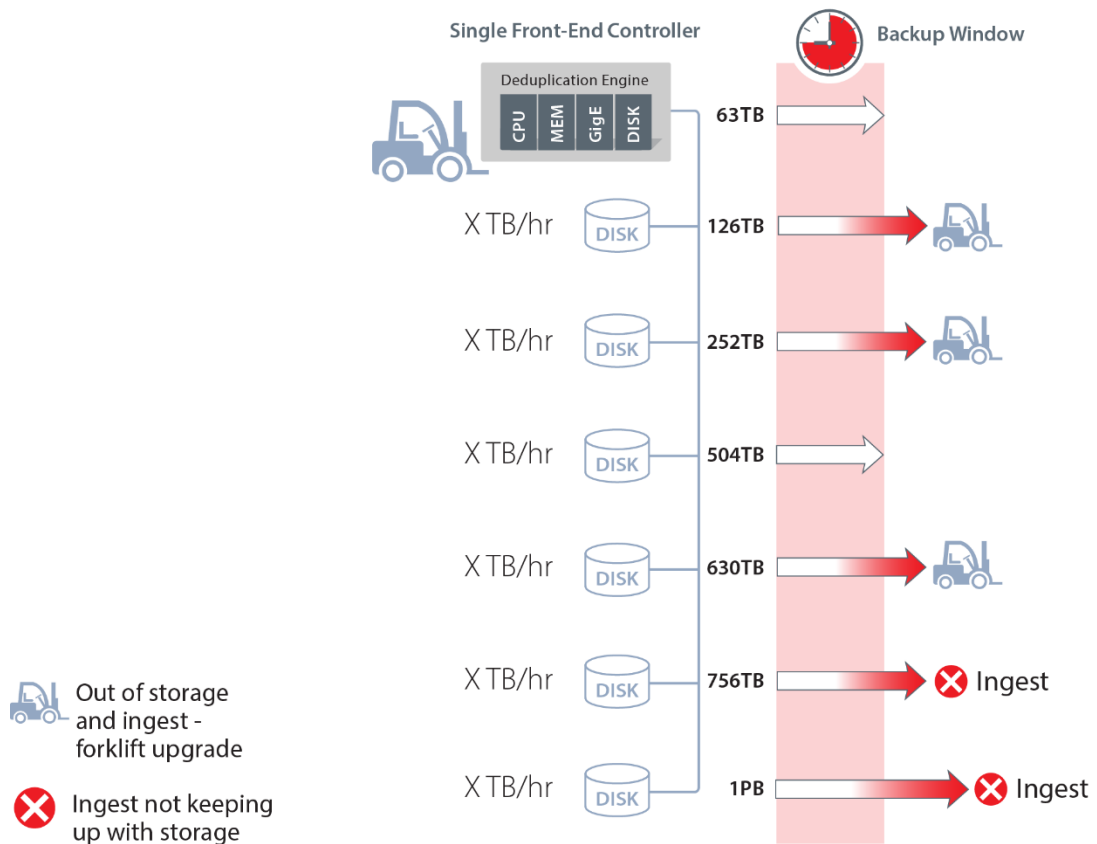
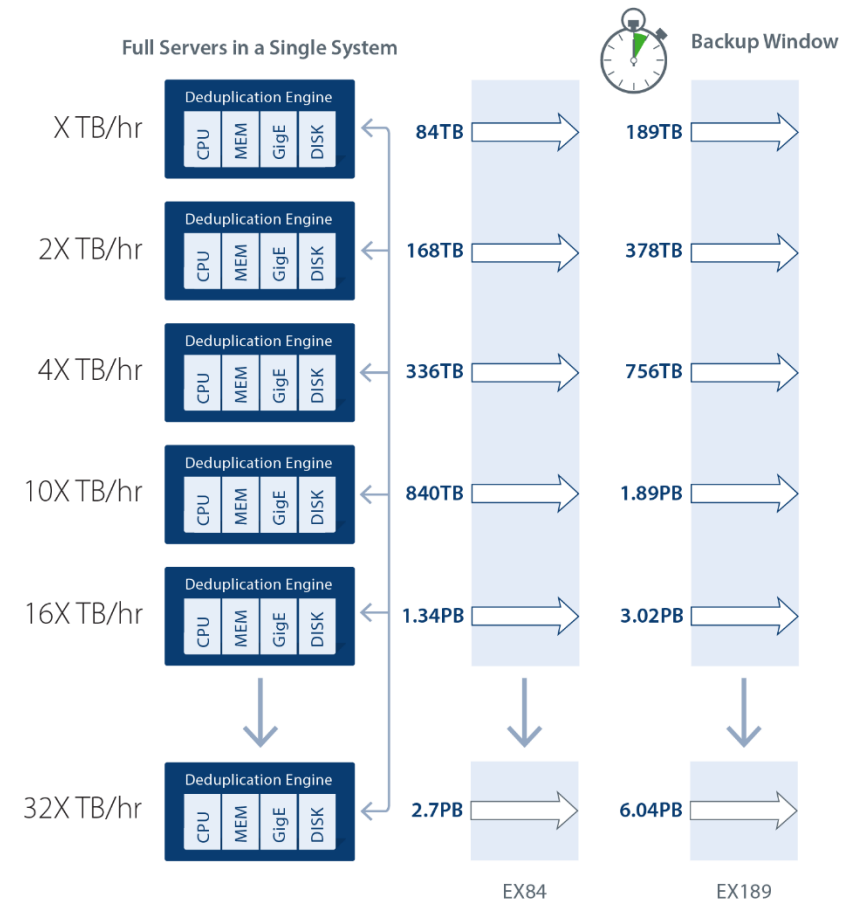# Encryption Protection of Backup Data on ExaGrid

**Primary Storage**

**Backup Application**

**Landing Zone**

B1

Data is encrypted or backed up
as encrypted data
from the backup application

**Repository Tier**

T1    T2

Immutable deduplication objects
- As new data comes there are no deletes, overwrites or changes to the past dedupe objects

New deduplication objects
- Are added
- All past retention is protected

# ExaGrid Scalability – Scale-out

# Fixed-Length Backup Window



**Scale-Up Architecture**

Single Front-End Controller — Backup Window

Deduplication Engine: CPU | MEM | GigE | DISK — 63TB

X TB/hr — DISK — 126TB

X TB/hr — DISK — 252TB

X TB/hr — DISK — 504TB

X TB/hr — DISK — 630TB

X TB/hr — DISK — 756TB — ✗ Ingest

X TB/hr — DISK — 1PB — ✗ Ingest

Out of storage and ingest - forklift upgrade

Ingest not keeping up with storage

**ExaGrid Scale-Out Architecture**

Full Servers in a Single System — Backup Window

| | EX84 | EX189 |
|---|---|---|
| X TB/hr | 84TB | 189TB |
| 2X TB/hr | 168TB | 378TB |
| 4X TB/hr | 336TB | 756TB |
| 10X TB/hr | 840TB | 1.89PB |
| 16X TB/hr | 1.34PB | 3.02PB |
| 32X TB/hr | 2.7PB | 6.04PB |

# End-to-End Scale-Out Backup with ExaGrid and Veeam
## Support of Veeam Scale-Out Backup Repository (SOBR)



**Veeam SOBR**

**Single Backup Job
Protects Entire Environment**

**Scale-Out System**

Landing Zone
Repository Tier

Landing Zone
Repository Tier

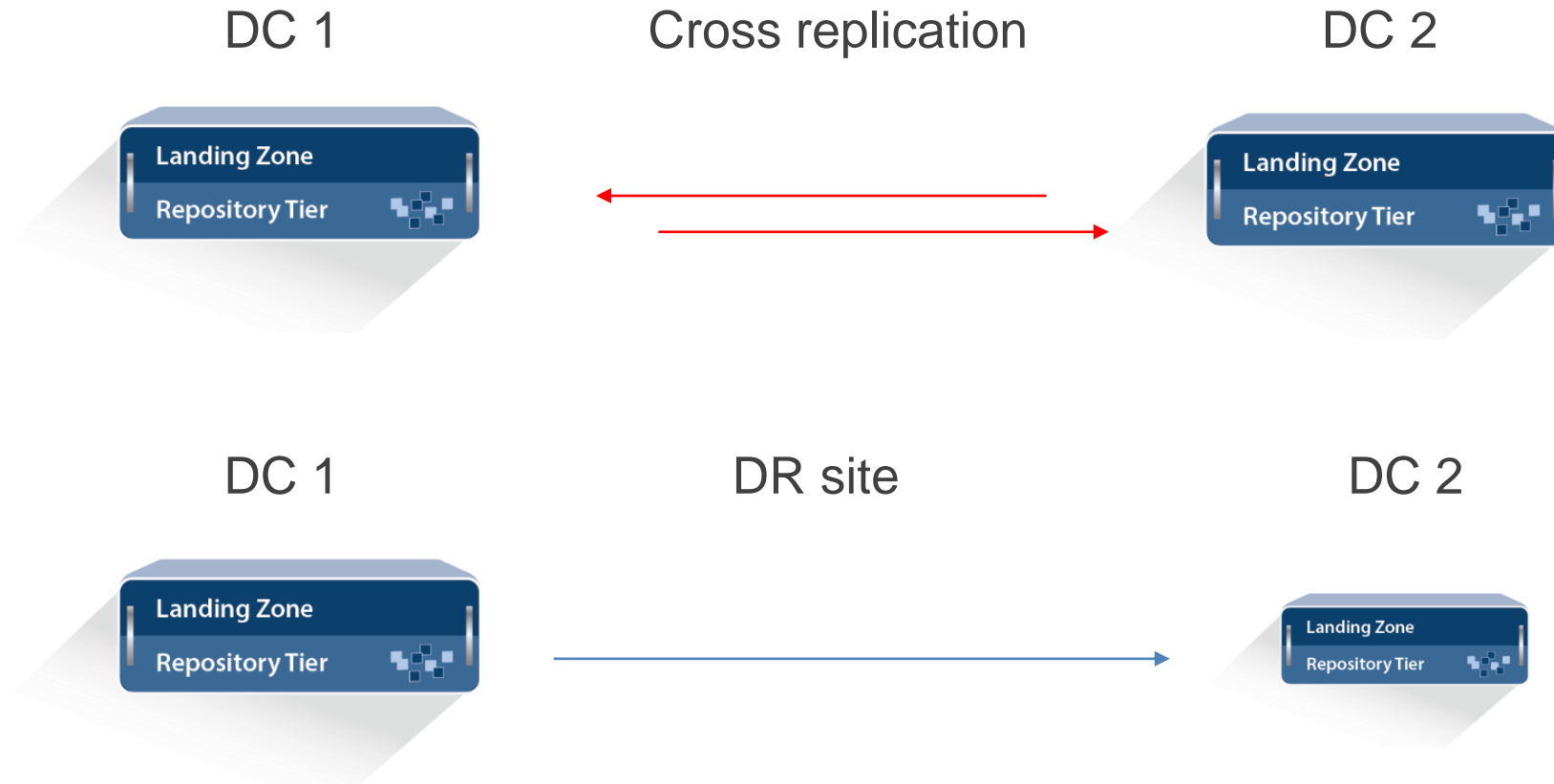Landing Zone
Repository Tier

Landing Zone
Repository Tier
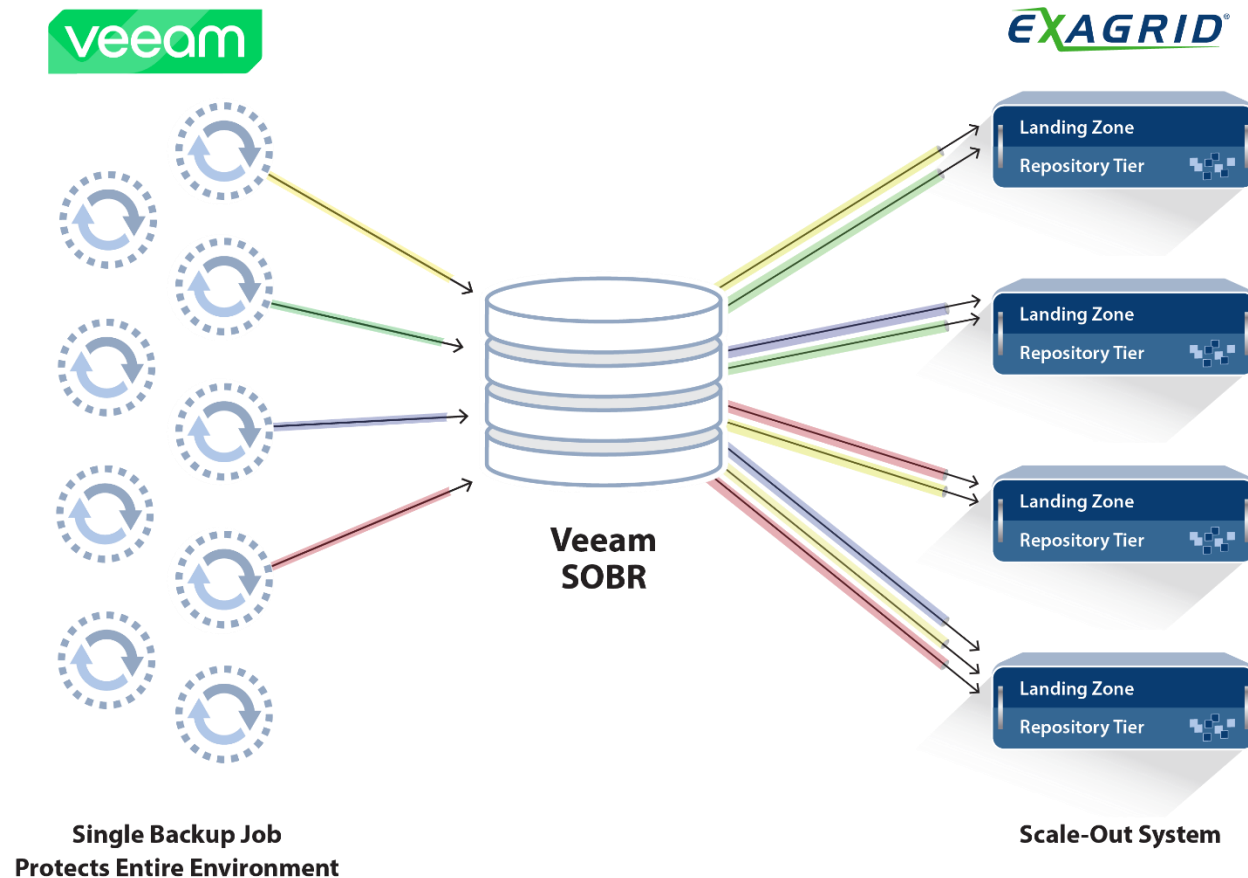
- Automated job management

- Superior performance with SOBR optimizing backup streams

- Future-proof scalability for data growth by simply adding another appliance

- Automatic repository load balancing

- Global deduplication across all repositories

- Failure tolerance with automated job redirect

- 6PB full backup in a single system
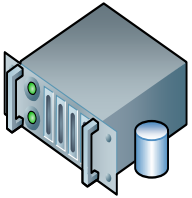
# ExaGrid – Simple & Flexible



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# Backup infrastructure scenarios …

DC 1      Cross replication      DC 2

| Landing Zone |
| Repository Tier |

| Landing Zone |
| Repository Tier |

DC 1      DR site      DC 2

| Landing Zone |
| Repository Tier |

| Landing Zone |
| Repository Tier |
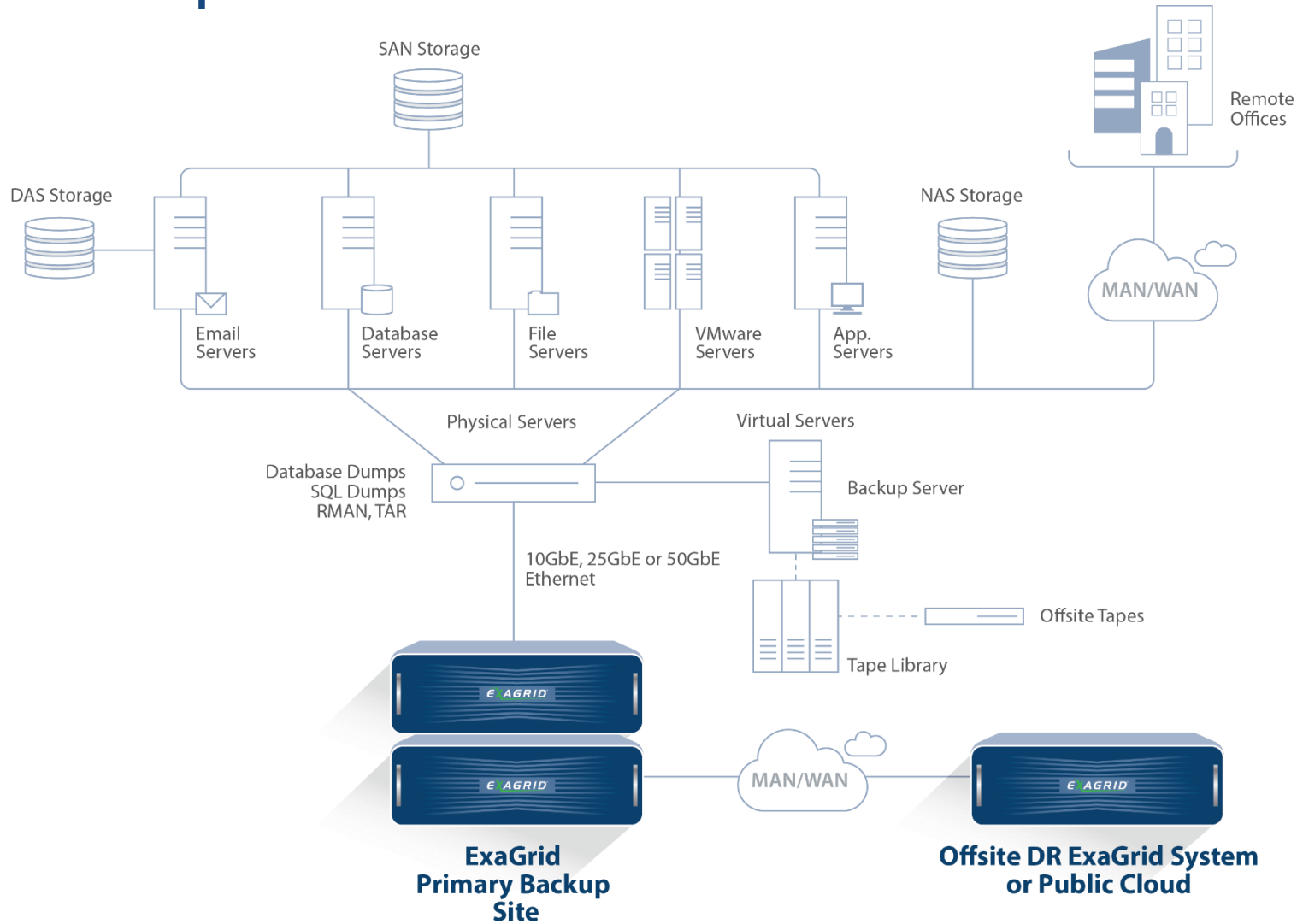
# Backup infrastructure scenarios …

Backup server

Data Vault

Veeam replication or copy job

Landing Zone
Repository Tier

ExaGrid as Backup server
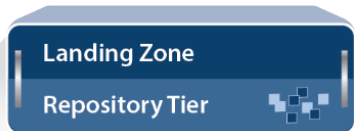
Tape or ExaGrid Cloud Tier
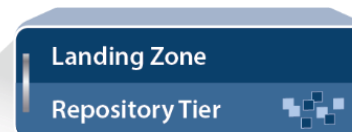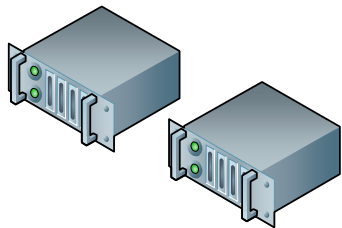
Landing Zone
Repository Tier

DC 3 / DR

DC 1

DC 2

Landing Zone
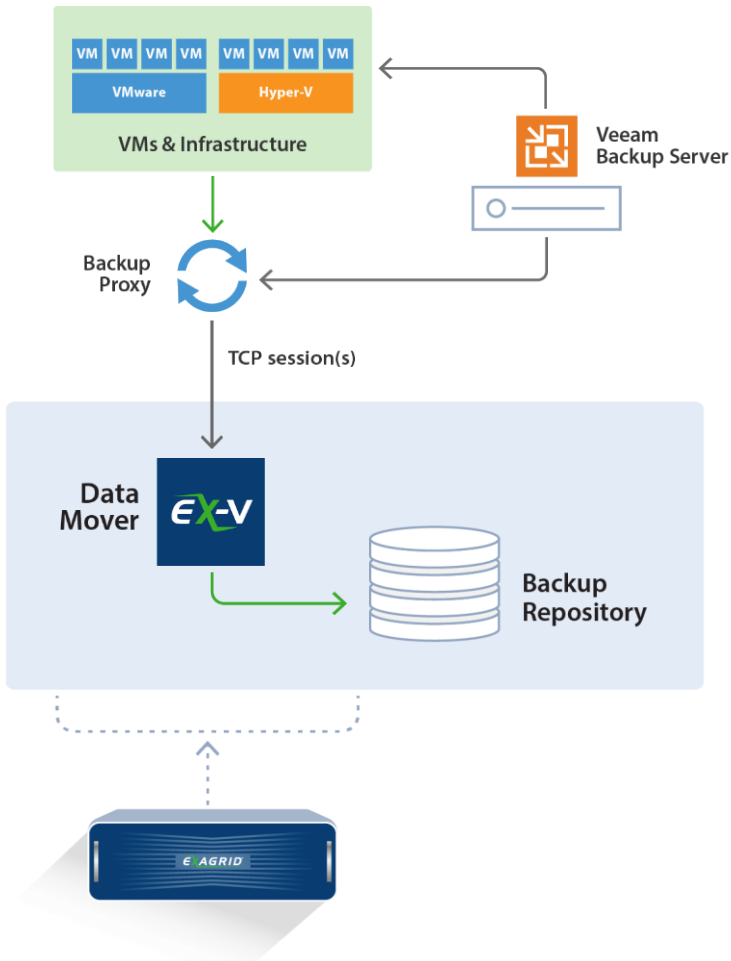Repository Tier

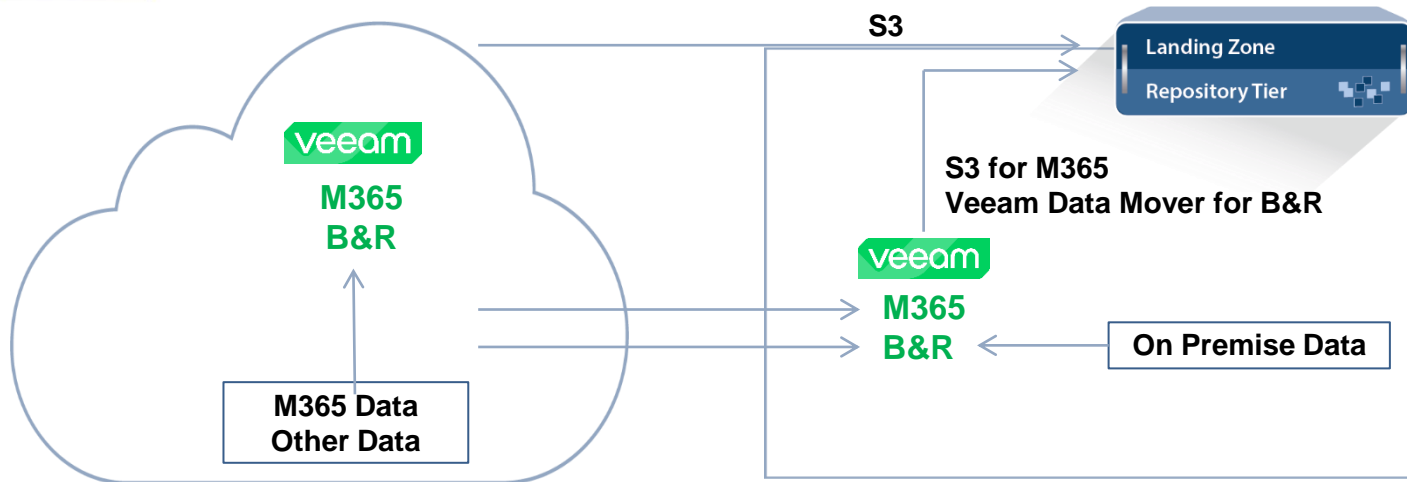# Integrated Veeam Data Mover – Faster Backups



- Veeam-to-Veeam vs Veeam-to-CIFS
- Secure communication
- 30% faster ingest
- Faster VM boots

# Veeam M365 and B&R to ExaGrid as S3 target

**IT Data Center**

**S3**

Landing Zone

Repository Tier

**S3 for M365**
**Veeam Data Mover for B&R**

**M365**
**B&R**

**M365**
**B&R**

**On Premise Data**

**M365 Data**
**Other Data**

veeam
Ready
Object

## Chose the best combination of:

### Veeam Data Mover

- 20-30% performance increase
- Secure proprietary protocol
- Fast Clone synthetic fulls

### S3

- Immutable data also on landing zone
- Two levels of immutability, Object lock & RTL

# Veeam – ExaGrid Integrations

**Synthetic fulls occur on ExaGrid appliances**
- 30X faster with Veeam Fast Clone

**Veeam Data Mover protocol**
- More secure

**Unique Approach for the Fastest Restores**
- ExaGrid resynthesizes Veeam Fast Clone synthetic fulls on Landing Zone

**Veeam Data Mover transport**
- 30% faster ingest

**SOBR integration for true scale-out**
- Automated management and scalability

**Further deduplicate Veeam deduplication**
- Take from 2:1 to 14:1

**Support of S3/M365 backups**
- ExaGrid is an object store target for Veeam using S3 protocol, support of Veeam Backup for M365 directly to ExaGrid

# Comprehensive Security

Security Checklist

Comprehensive Monitoring

Ransomware Recovery
Non-network-facing tier (tiered air gap)
Delayed Deletes / Immutability

SSH Key Support

Encryption at the Drive Level

IP-based Whitelist

WAN Encryption

Secure Protocols & SMB Signing

RBAC (Role-based Access Control)

Secured https://

https://

Security Officer Role
protects sensitive data management

https with TLS Certificates

Two-Factor Authentication (2FA)

# Personal Touch - Maintenance & Support

## Assigned Level 2 Customer Support Engineer

- Subject matter experts in backup applications
- In-theater worldwide support available in many local languages

## Customer Installable and Serviceable

- Self-installable with phone support and Webex
- Typical installation is 30 mins – 3 hours
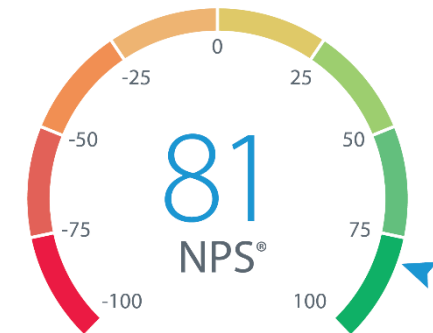- Self-serviceable hardware replacements, next business day delivery

## 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 hidden costs – all included in support program.



81
NPS®

Customers give ExaGrid
**NPS score of +81**

# Fixing the Economics of Backup

**Price Protection**

> ExaGrid fixes the price for all future purchases – price protection

**Maintenance $**

> ExaGrid limits the increase to 3% per year

**Maintenance %**

> ExaGrid's maintenance is a % of the hardware price you pay

**Forklift Upgrades**

> ExaGrid appliances have all resources, add to scale-out system and grow
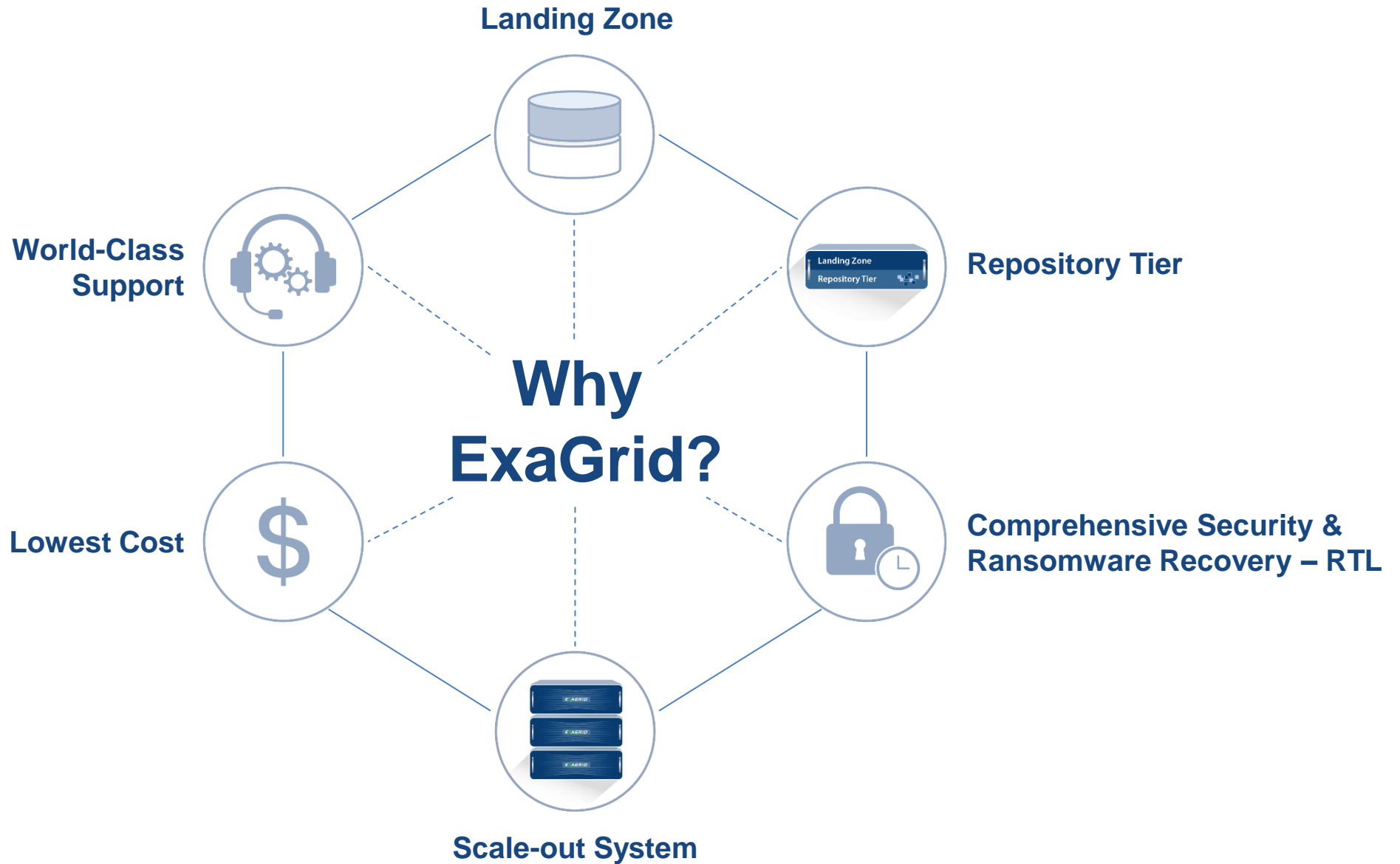
**Guesswork**

> ExaGrid allows for appliances to be added to a scale-out system

**Obsolescence**

> ExaGrid allows the mix and match of any age or size model

**Hidden Costs**

> ExaGrid includes installation, full versions, replication, HW replace

Landing Zone

World-Class Support

Repository Tier

Why ExaGrid?

Lowest Cost

Comprehensive Security & Ransomware Recovery – RTL

Scale-out System

**Thank you** / exagrid.com