# The Flex Appliance and Something New!

## Technical Detail Presentation

Clifford Barcliff
Evangelist, Datacenter Resiliency

VERITAS™

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# Flex Appliances Technical Detail Presentation – Agenda

| | |
|---|---|
| 1 | Why? |
| 2 | Flex Appliances Family |
| 3 | Flex Appliance Customer Use Cases |
| 4 | Flex Appliance XXXX Hardware Details |
| 5 | Summary and Additional Resources |

# Why Flex?  And what is so special about the edge?

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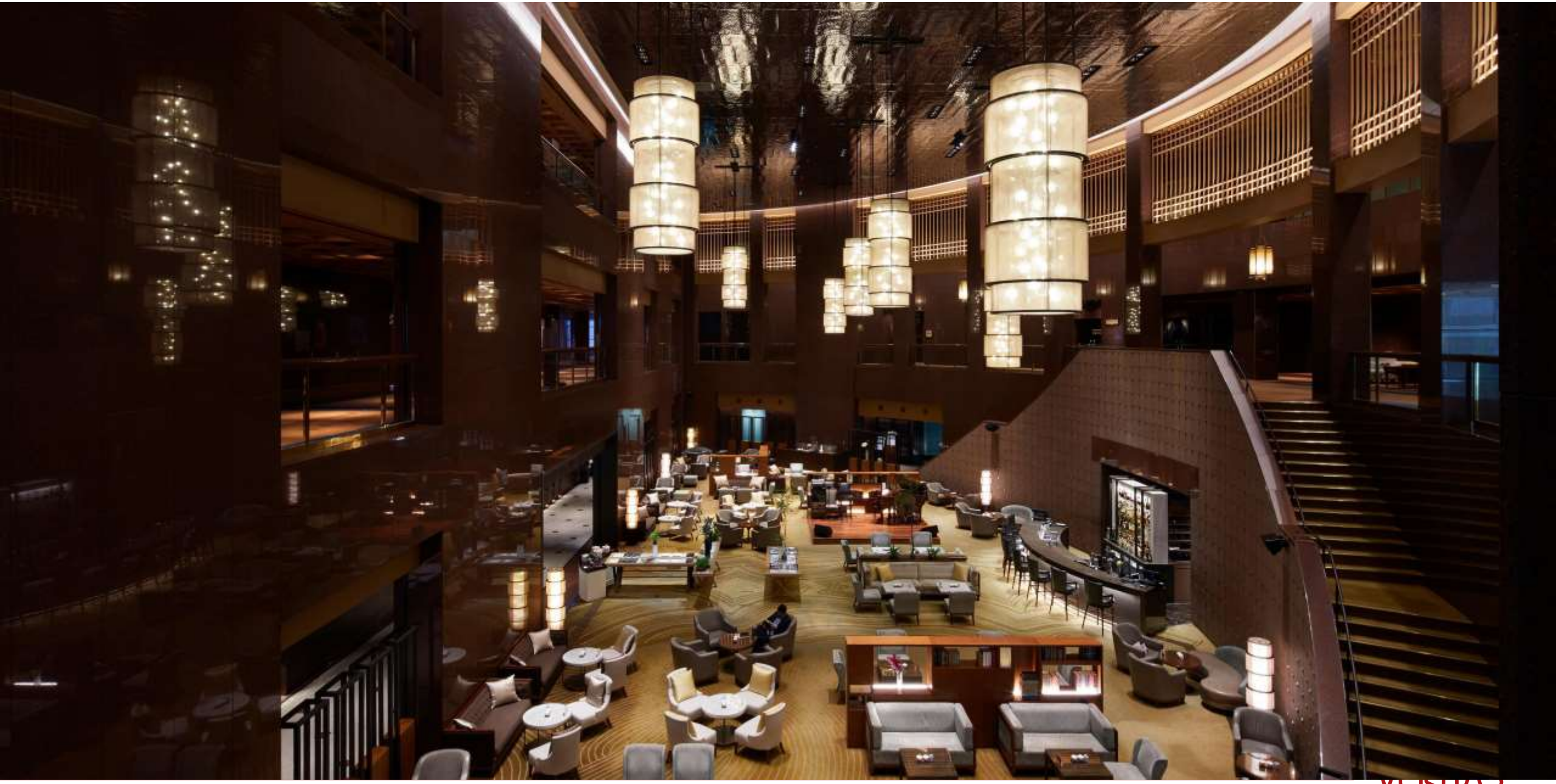


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# Valuable, business critical data, at the edge!


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# Introduction

## Flex Appliances family positioning and overview

Fully integrated Docker technology

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***NEW!*** **Flex Appliance 5150**

POSITIONING

- ✓ Simplified protection for remote or branch offices
- ✓ Cost-effective, low-maintenance design
- ✓ Centrally managed

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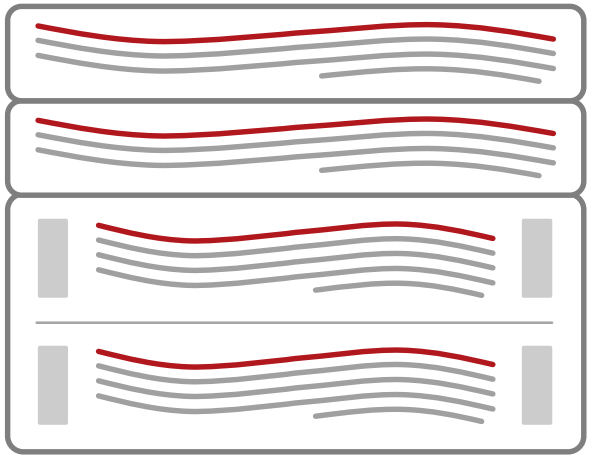
**Flex Appliance 5340**



POSITIONING

- ✓ Enterprise-grade protection for data centers with demanding workloads
- ✓ Powerful, high-performance hardware platform
- ✓ Expandable storage up to 1,920 PiB
- ✓ Expandable memory up to 1.5 PiB
- ✓ Integrated high availability support



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# Veritas Appliances Family Overview

## High-level comparison of Veritas Appliance solutions

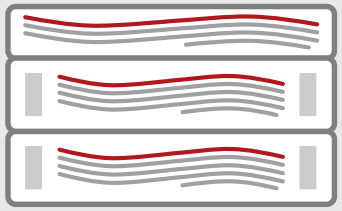
NetBackup
### Virtual Appliance

*Available in multiple editions*

- ✓ Deployment simplicity
- ✓ Minimize CapEx investment
- ✓ Designed for VMware

**POSITIONING SUMMARY:**
Data protection in fully virtual deployments and remote offices.

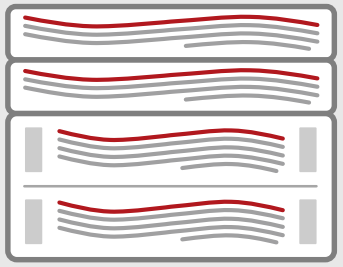
NetBackup
### 5240 Appliance



- ✓ Master or Master/Media
- ✓ CloudCatalyst support
- ✓ 321 TiB maximum storage

**POSITIONING SUMMARY:**
Predictable high performance data protection for moderate workloads.

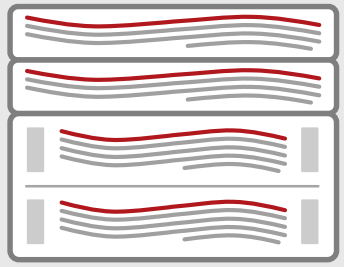
NetBackup
### 5340 Appliance



- ✓ High performance Media Server
- ✓ 1,920 TiB maximum storage

**POSITIONING SUMMARY:**
Predictable highest performance data protection for enterprise workloads.

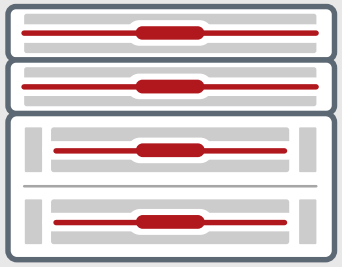
Flex
### 5340 Appliance



- ✓ Flexibility and agility
- ✓ High performance
- ✓ Multiple NetBackup roles on one appliance

**POSITIONING SUMMARY:**
Run multiple Veritas software products on a single, flexible, converged solution.

Access
### 3340 Appliance



- ✓ Long-term data retention
- ✓ 2,544 TiB maximum storage

**POSITIONING SUMMARY:**
Long-term data storage and archiving as tape and public cloud alternative.



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# Veritas Appliances Family Overview

## High-level comparison of Veritas Appliance solutions

### NetBackup Virtual Appliance

*Available in multiple editions*

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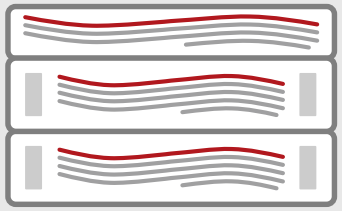
Data protection in fully virtual deployments and remote offices.

### NetBackup 5240 Appliance



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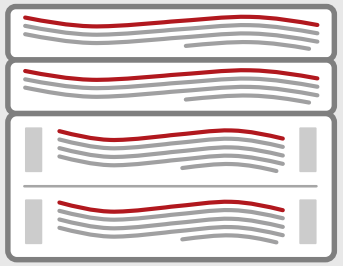
Predictable high performance data protection for moderate workloads.

### NetBackup 5340 Appliance



- ✓ High performance Media Server
- ✓ 1,920 TiB maximum storage

**POSITIONING SUMMARY:**

Predictable highest performance data protection for enterprise workloads.

### Flex 5150 Appliance

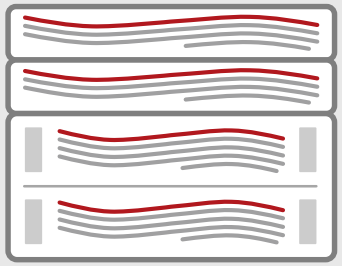
*New offering!*

- ✓ Simplified protection for remote or branch offices
- ✓ Cost-effective design
- ✓ Low-maintenance

**POSITIONING SUMMARY:**

Simplified and streamlined protection for remote or branch office locations.

### Flex 5340 Appliance



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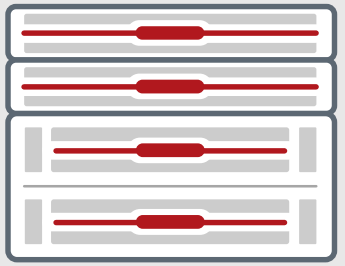
Run multiple Veritas software products on a single, flexible, converged solution.

### Access 3340 Appliance



- ✓ Long-term data retention
- ✓ 2,544 TiB maximum storage

**POSITIONING SUMMARY:**

Long-term data storage and archiving as tape and public cloud alternative.



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# Flex Appliance Customer Use Cases

Key customer challenges addressed by Flex Appliances

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# Flex Appliance Customer Use Cases

Configuration agility

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***NEW!*** **Flex Appliance 5150**

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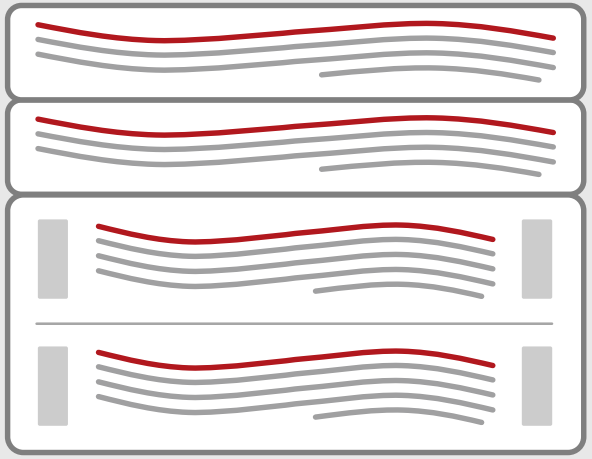
**Flex Appliance 5340**



## Increase NetBackup Server Deployment Speed

- ✓ Deploy new NetBackup Servers in a matter of minutes
- ✓ Implement almost any NetBackup topological configuration
- ✓ Host multiple NetBackup domains
- ✓ Consolidate multiple, standalone NetBackup Servers on a single appliance

# Flex Appliance Customer Use Cases

Expanded deduplication storage benefits

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***NEW!*** **Flex Appliance 5150**

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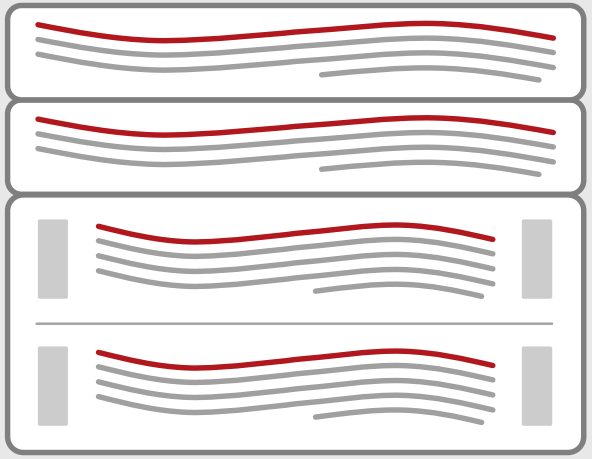
**Flex Appliance 5340**



## Reduce Secondary Storage Costs with Expanded Deduplication

- ✓ Expand optimization-enabled storage by hosting multiple NetBackup MSDP Media Servers
- ✓ Increase deduplication storage capacity to almost 2 petabytes per Flex 5340 Appliance

# Flex Appliance Customer Use Cases

Backup-as-a-service capability

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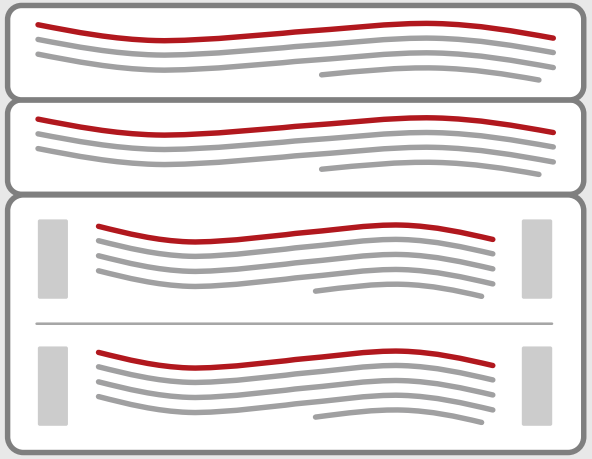
***NEW!*** **Flex Appliance 5150**

Veritas
**Flex Appliance 5340**



## Secure and Isolate Tenant Backup Information

- ✓ Configure NetBackup application instance infrastructure into logical groups known as tenants
- ✓ Secure and isolate tenant backup data
- ✓ Secure and isolate tenant network traffic

# Flex Appliance Customer Use Cases

Streamline management, operation, and support

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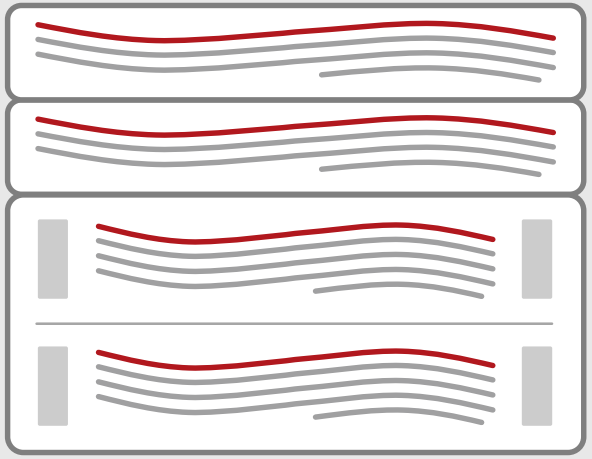
**Flex Appliance 5340**



## Save Time and Reduce Risk with Simplified Upgrades

- ✓ Streamline and simplify NetBackup application instance upgrade process
- ✓ Reduce risks and complexity associated with standard upgrade procedures
- ✓ Reduce support requests

# Flex Appliance Customer Use Cases

Increase operational efficiency

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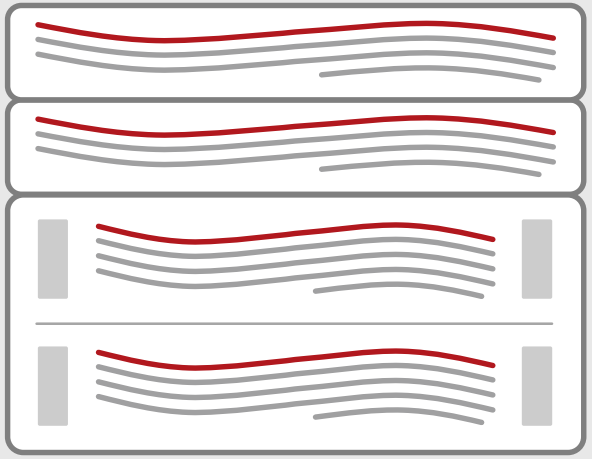
**Flex Appliance 5340**



## Reduce Planned and Unplanned Downtime

- ✓ Fully integrated high availability greatly increases uptime per year
- ✓ Improves system through-put performance
- ✓ Reduces operational costs

# Flex Appliance Customer Use Cases

Improve remote and branch office protection

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***NEW!*** **Flex Appliance 5150**

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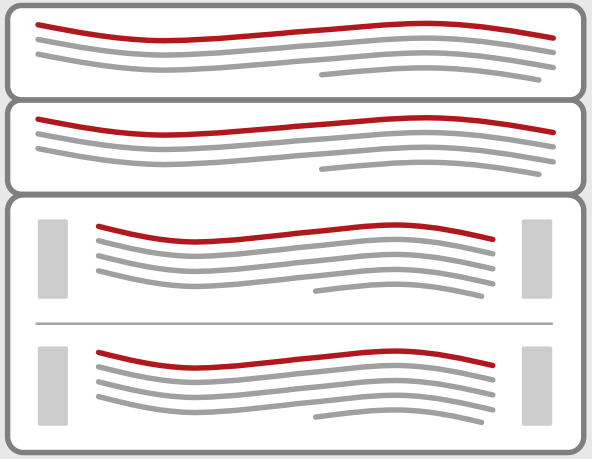
**Flex Appliance 5340**



## Simplify Protection of Remote or Branch Offices

- ✓ Streamlined deployment
- ✓ Cost-effective, low-maintenance design
- ✓ Backups can be duplicated to central data center

# Flex Appliance 5150 Hardware Technical Details

In-depth review of the Flex Appliance 5150 hardware platform

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# VERITAS Flex 5150 Appliance

**Remote Office Protection**
Streamlined, cost-effective protection of remote and branch offices

- 1U server system; no external storage shelf component
- Designed for remote offices with smaller workload requirements

Fully integrated Docker container technology.

**Veritas Flex Software**
Powerful Flex software featuring fully integrated Docker technology

**Veritas AutoSupport**
24x7 hardware monitoring and alerting

# Veritas Flex 5150 Appliance Hardware

Overview

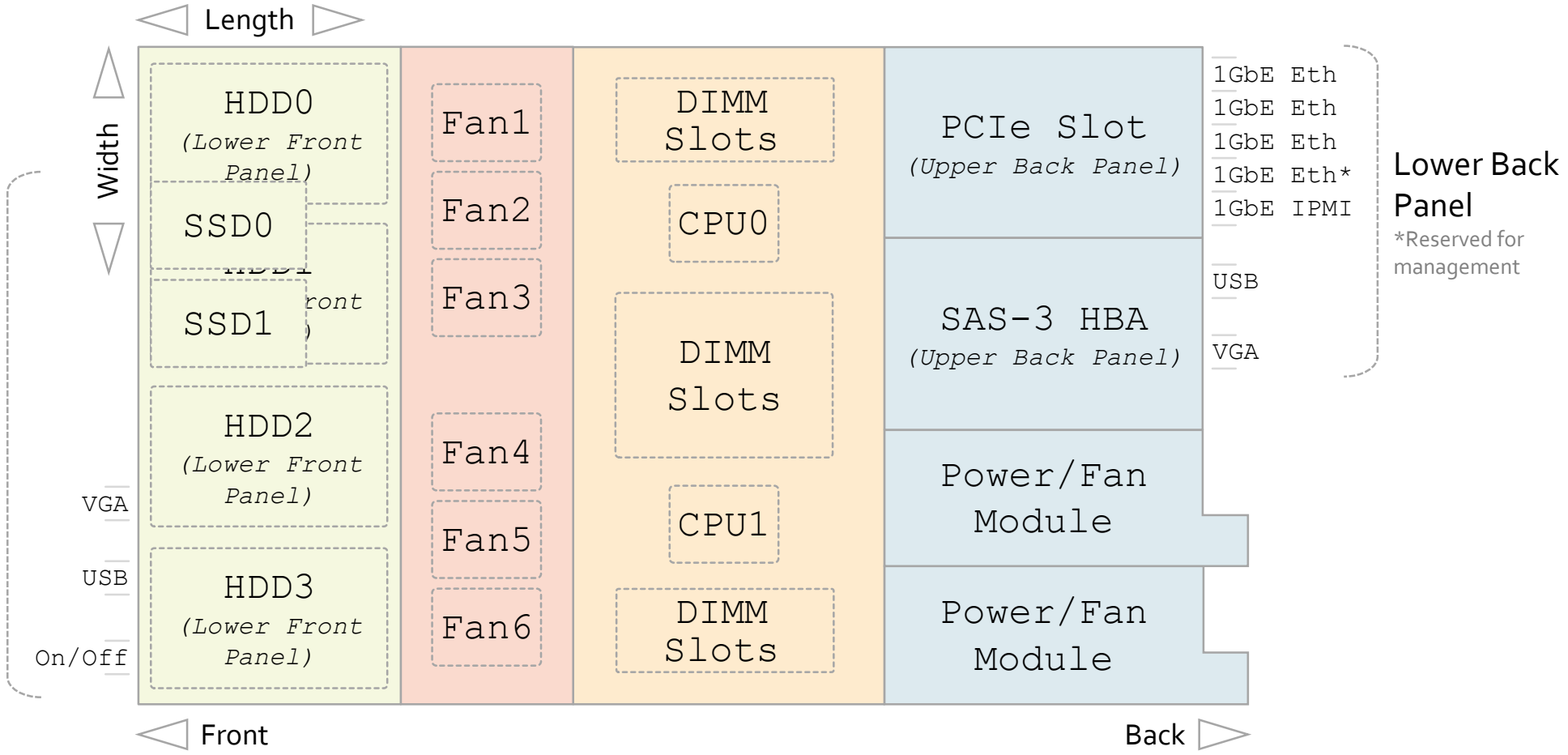
## Hardware Overview

- 1x Intel Xeon Bronze 3106 CPU @ 1.7GHz, 8 cores
- 64GB of DDR4 memory @ 2666MHz (2x 32GB DIMMs)
- 14.5TiB storage capacity (4x 8TB drives, RAID 10)
- 4x 1GbE ports
- 1x configurable PCIe slot (options available are by model designation)

# Veritas Flex 5150 Appliance Hardware

## Simplified component layout summary – top view

**Dimensions**
- Width: 17.25”
- Length: 28”
- Height: 1.72”




Upper Front Panel

Lower Back Panel

*Reserved for management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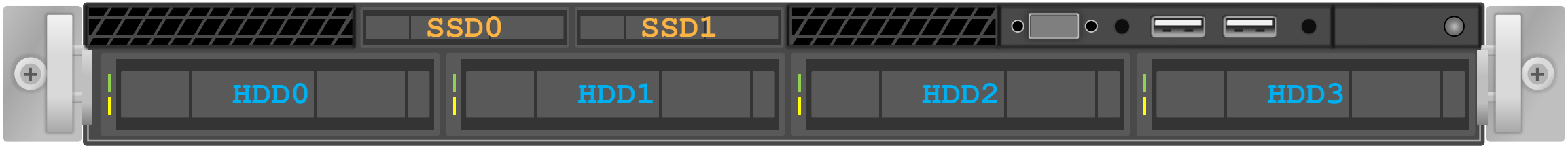
# Veritas Flex 5150 Appliance Hardware

Disk configuration – front view, no bezel




## Flex Software Platform and Logging

- SSD0 + SSD1
- 480GB SSDs
- RAID 1 (Mirror)

## Application Data Storage and Logging

- HDD0 – HDD3
- 8TB HDDs
- 14.5TiB (16TB) storage capacity
- RAID 10 (RAID 1 + RAID 0)



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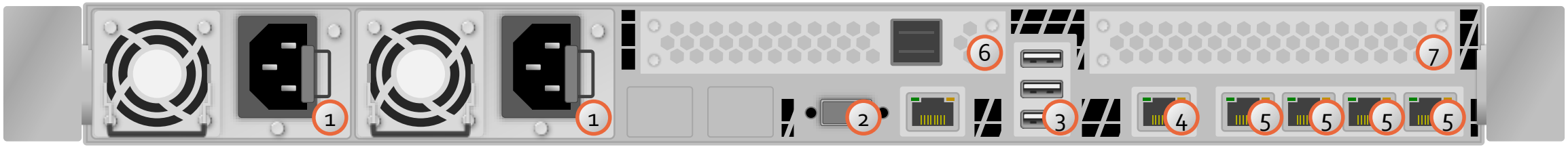
# Veritas Flex 5150 Appliance Hardware

Back panel view




## Flex Appliance 5150 Back Panel Layout

1. Power modules
2. VGA port
3. USB ports
4. IPMI port
5. 1GbE ports
6. 2x12Gb SAS-3 ports
7. I/O configuration options PCIe slot



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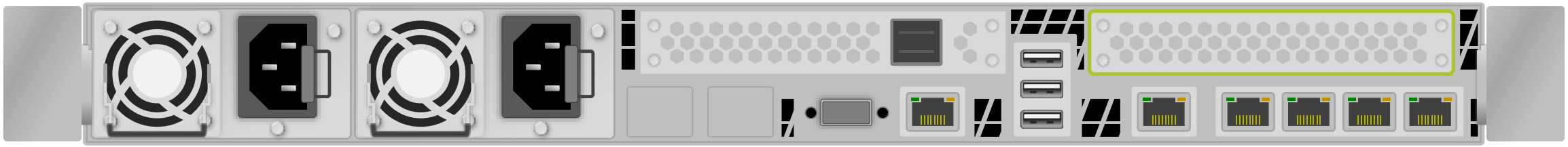
# Veritas Flex 5150 Appliance Hardware

I/O configuration options PCIe slot – back panel view – option A (no population)



## I/O Option A

- PCIe slot is **not populated**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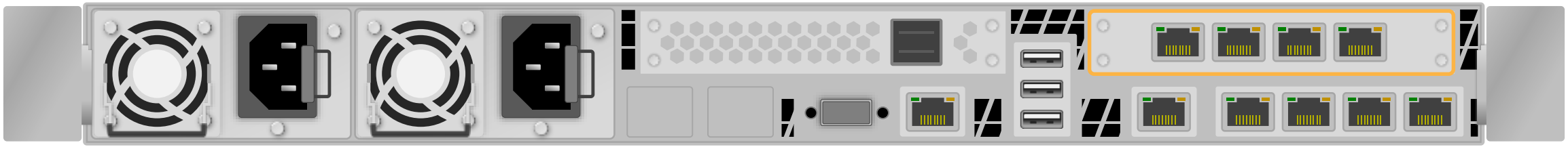
# Veritas Flex 5150 Appliance Hardware

I/O configuration options PCIe slot – back panel view – option B



## I/O Option B

- PCIe slot is populated with a **4 port 1GbE RJ45 NIC**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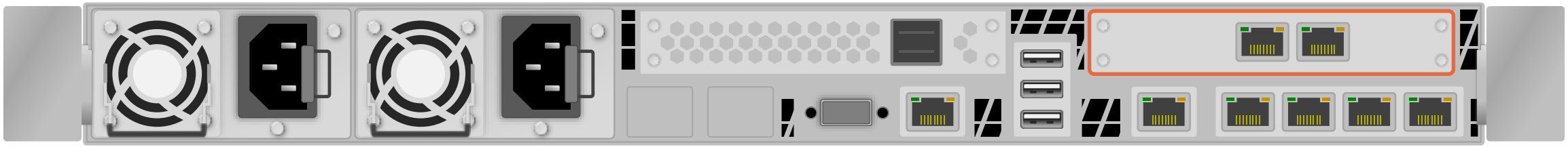
# Veritas Flex 5150 Appliance Hardware

I/O configuration options PCIe slot – back panel view – option C



## I/O Option C

- PCIe slot is populated with a **2 port 10GbE RJ45 NIC**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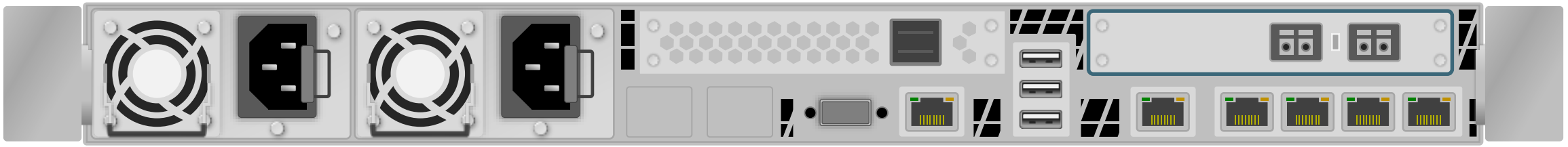
# Veritas Flex 5150 Appliance Hardware

I/O configuration options PCIe slot – back panel view – option D



## I/O Option D

- PCIe slot is populated with a **2 port 25GbE/10GbE SFP NIC**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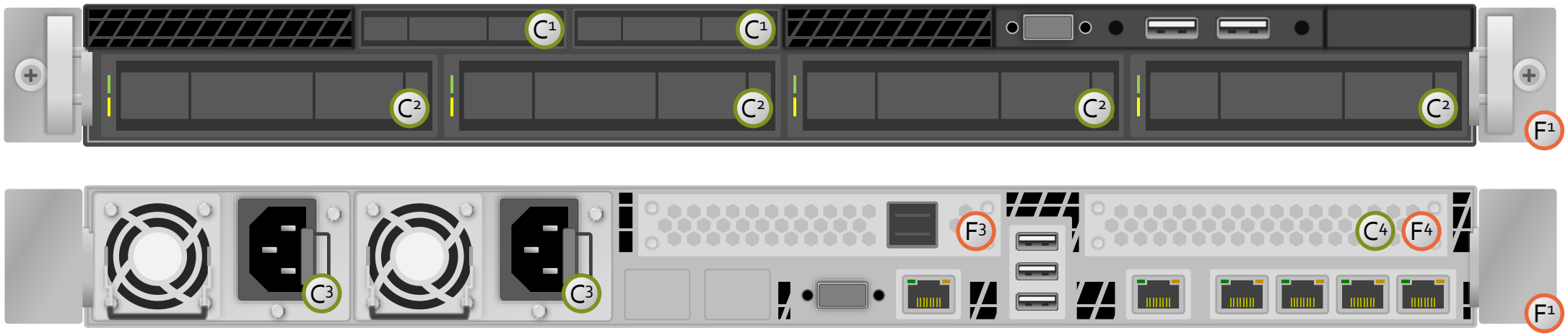
# Veritas Flex 5150 Appliance Hardware

## FRUs and CRUs




### Field Replaceable Units (FRUs)

- F1 Chassis
- F2 Memory/RAM (not pictured in diagram)
- F3 SAS HBA
- F4 Eth RJ45 NIC (options B/C), SFP NIC (option D)

### Customer Replaceable Units (CRUs)

- C1 SSDs
- C2 HDDs
- C3 Power modules
- C4 SFP modules (option D)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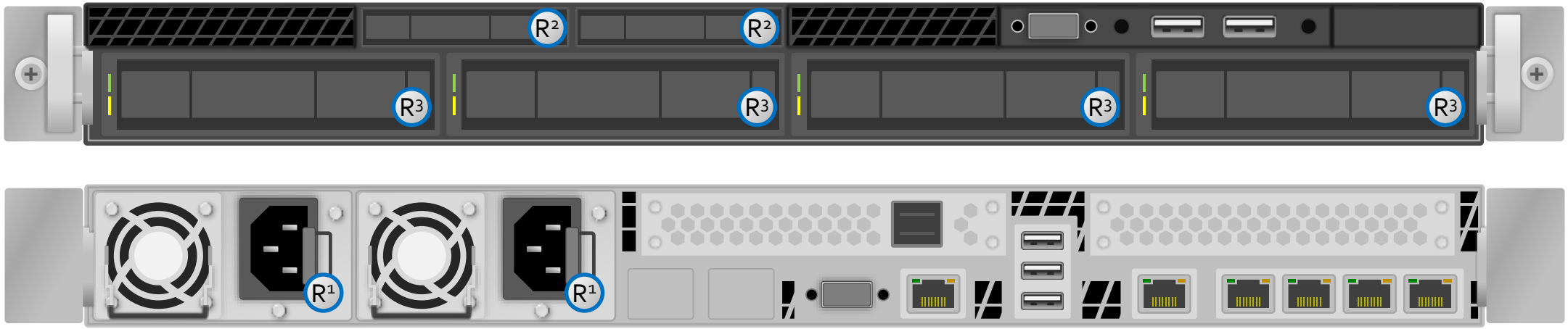
# Veritas Flex 5150 Appliance Hardware

## Integrated redundancy features




### Integrated Resiliency and Redundancy Features

- R1 Redundant power and cooling modules
- R2 RAID 1-protected Flex software platform and logging disks
- R3 RAID 10-protected data storage disks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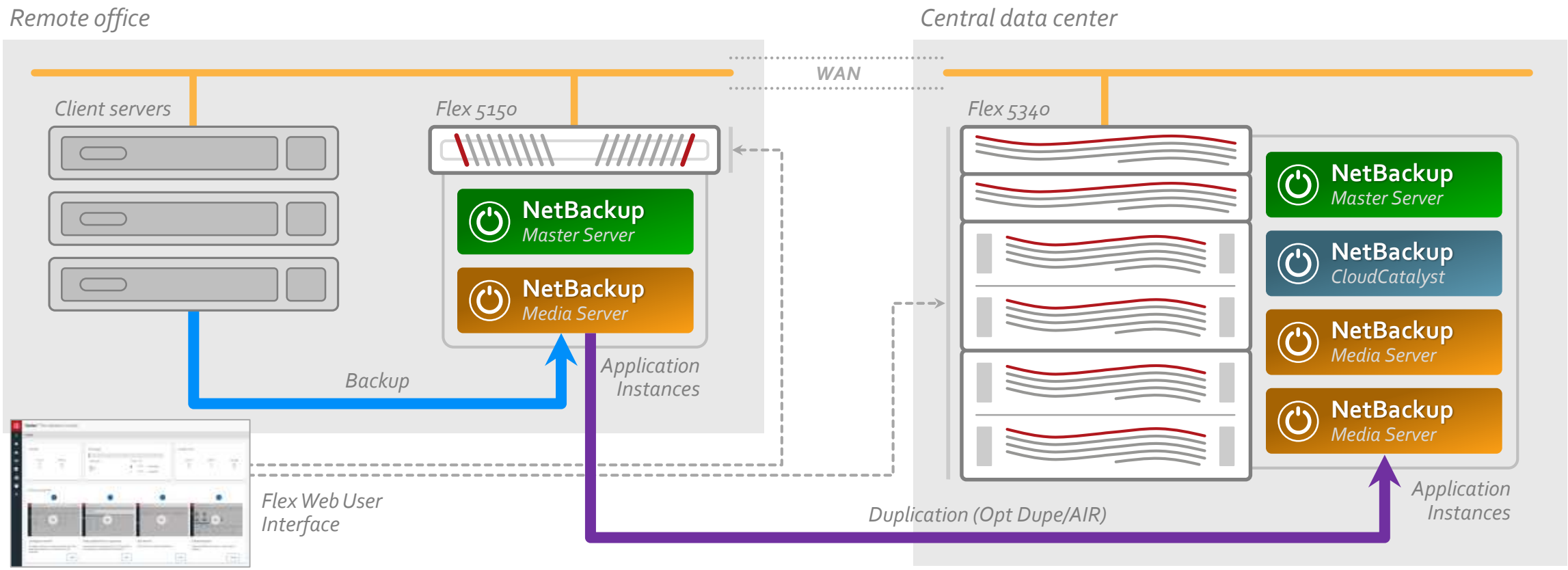
# Flex Appliance 5150 Hardware

## Remote office protection diagram





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# Flex Appliance 5150 Hardware

Performance guidance

Flex Appliance 5150

## Performance Guidance

| Concurrent Backups | Number of Clients |
|---|---|
| Up to 15 | Up to 100 |
| Note: The Flex Appliance 5150 is designed for remote or branch office locations with smaller workload requirements. These are general guidelines only; a sizing analysis of a customer's environment is always recommended. | |


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# Summary and Additional Resources

Review of key presentation topics

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# Summary

Flex Appliances executive summary – customer advantages

# Veritas Flex Appliances help customers:

| Simplify Protection of Remote Offices | Increase Operational Efficiency | Reduce Costs with Consolidation | Maximize Performance and Scalability |
|---|---|---|---|
| ✓ Reduce maintenance costs | ✓ Deploy faster | ✓ Lower CapEx through NetBackup environment consolidation | ✓ Optimize performance via HW/SF integration |
| ✓ Streamline protection of remote office resources | ✓ Minimize planned and unplanned downtime | ✓ Reduce operating expenses | ✓ Reduce bandwidth and capacity requirements with deduplication |
| ✓ Replicate backups to a central datacenter | ✓ Streamline management tasks | ✓ Decrease space, cooling, and power requirements | ✓ Easily add capacity as your environment grows |
| | ✓ Improve staff efficiencies and service levels | | |

# Summary and Additional Resources

Additional resources

Flex Appliances

## Additional Resources and Information

| Resource | Link |
|---|---|
| Veritas Website | https://www.veritas.com/ |
| Veritas Appliances Website | https://www.veritas.com/product/backup-and-recovery/netbackup-appliances/family |
| Veritas PartnerNet | https://partnernet.veritas.com/ |
| Veritas Support Portal | https://www.veritas.com/support/ |
| MyVeritas Customer Portal | https://my.veritas.com/ |
| SORT | https://sort.veritas.com/ |
| Veritas Training and Certification | https://www.veritas.com/education-services/certification |

# Thank you!

Clifford Barcliff

clifford.barcliff@veritas.com
Example presenter's phone

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