

# SCALE PETABYTES OF DATA STORAGE AT THE SPEED OF YOUR ENTERPRISE

A software-defined storage solution designed by IIS

## SOLUTION OVERVIEW

### A SOFTWARE-DEFINED STORAGE SOLUTION CONSISTING OF:

- Red Hat products
- HPE Apollo servers
- IIS managed services

### JOINT STORAGE SOLUTION BENEFITS INCLUDE:

- Cost-effectiveness
- Rapid scalability
- Flexible pricing structure
- Integrated management
- Security
- High availability

## INTRODUCTION

Modern enterprises struggle to manage the rapid growth of unstructured data while remaining agile, cost-effective, and competitive. Inadequate storage infrastructure is cited as the fourth of the top 10 pain points that IT decision makers experience on a weekly basis, and 98% of IT decision makers believe that there are benefits in moving their organizations to a more agile storage solution.<sup>1</sup>

To store and manage petabytes of data at the speed required by business, many enterprises have turned to public cloud storage, but many find retrieving petabytes of data from the cloud cost-prohibitive. Now more than ever, managing exponential data growth requires a cost-efficient, elastic, scale-out storage solution that can be deployed across hybrid IT environments. Software-defined storage helps enterprises significantly lower the deployment and maintenance costs of data storage and more efficiently manage a storage infrastructure that scales out, not up.

International Integrated Solutions (IIS) offers several fully supported, software-defined storage architectures and storage management services to fit your organization's unique needs—whether your business demands low-cost archival storage or storage capable of managing modern, high-throughput workloads. Built on Red Hat® technologies and deployed on clusters of industry-standard Hewlett Packard Enterprise (HPE) servers, IIS storage solutions deliver substantially better scalability and durability than conventional storage appliances and more cost efficiency than today's public cloud storage offerings, providing you a proven path to scale-out storage.

## RED HAT, HEWLETT PACKARD ENTERPRISE, AND IIS

Red Hat, HPE, and IIS work together to provide market-leading alternatives to traditional cloud storage solutions. Based on industry-standard HPE servers, and integrated with Red Hat open source, software-defined storage technologies, IIS storage offerings are flexibly designed for enterprises at every step of their storage journey. These turn-key storage architectures are ideal for enterprises with over a petabyte of data, and when coupled with IIS award-winning managed services, these solutions successfully transform storage. Designed to flex and scale with business demands, these secure solutions give you access to the latest storage technology—without vendor lock-in. Together Red Hat, IIS, and HPE deliver:

- A comprehensive portfolio of fully integrated, software-defined storage solutions.
- A unique blend of open technology, price and performance efficiency, and enterprise credibility.
- Deployment and managed services to achieve business value.
- Flexible financing options to fit operational expenditure (OpEx) or capital expenditure (CapEx) requirements.



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<sup>1</sup> Vanson Bourne Ltd. "Storage: limitations, frustrations, and coping with future needs." Red Hat Storage Research results, June 2016.

## SOLUTION AT A GLANCE

Comprised of high-performance HPE Apollo servers configured for object-, block-, and file-level software-defined storage, plus automation technologies from Red Hat that run on them, IIS storage offerings provide a complete, open solution that simplifies and accelerates time to solution. You can take advantage of the benefits of scale-out storage sooner and with less risk. Validated, integrated components combined with expert managed services and support help you obtain an agile, scalable, enterprise-grade, software-defined storage infrastructure that can be deployed with confidence.

IIS storage solutions provide the agility required to store data on-premise, in a hosting site, or in the cloud and offer a flexible, usage-based pricing model that scales with your organization. By incorporating third-party monitoring tools and legacy components into their storage solution designs, IIS delivers end-to-end integration throughout your storage infrastructure. Built to manage massive amounts of structured and unstructured data, IIS software-defined storage offerings incorporate these elements into a unified architectural framework.

### Red Hat software

*Red Hat Ceph Storage.* A production-ready implementation of Ceph, the open source storage platform that manages data on a distributed computer cluster and provides interfaces for object-, block-, and file-level storage. Proven at web scale, Red Hat Ceph Storage offers the data protection, reliability, and availability required by demanding object storage workloads.

*Red Hat Gluster Storage.* A storage platform that combines both file and object storage with a scale-out architecture, designed to cost-effectively store and manage petabyte-scale data growth and deliver a continuous storage fabric across physical, virtual, and cloud resources so you can transform your big semistructured and unstructured data from a burden to an asset.

*Red Hat Satellite.* A system management tool that helps you provision, configure, and update systems to keep them running efficiently, securely, and in compliance with various standards. By automating most system maintenance tasks, Red Hat Satellite helps you increase efficiency, reduce operational costs, and better respond to strategic business needs.

*Red Hat Ansible® Automation.* A product family that uses a simple automation language to deliver comprehensive insights into complex IT application environments. Ansible Automation speeds the deployment of IIS storage solutions, helping organizations to more quickly take advantage of high-performance storage.

### HPE Apollo servers

Hewlett Packard Enterprise (HPE) Apollo servers are a high-density server family built for the highest levels of performance and efficiency. They are rack-scale compute, storage, and networking solutions designed for massive scale-out. With a tiered approach for organizations of all sizes, they are suitable for big data analytics, object storage, and high-performance computing (HPC) workloads.

### IIS managed services

IIS managed services deliver consistent IT management and predictable results by following leading practices, tooling, automation, and governance to increase efficiency and to reduce overhead and risk. They will analyze your needs and develop and install the right solution.

Seamless proactive and unified monitoring, fault and performance management, in-depth key performance indicators (KPIs) and metrics, comprehensive dashboards, and reporting capabilities delivered through a secure portal generate actionable insights to guide enterprise strategy. IIS automates activities such as change requests, monitoring, patching, security, and backup services, as well as full life-cycle services to provision, run, and control your infrastructure. Smart automation results in faster resolution, with dedicated resources to monitor, manage, maintain, and run metrics on multicloud infrastructures, so that your team can focus on core objectives.

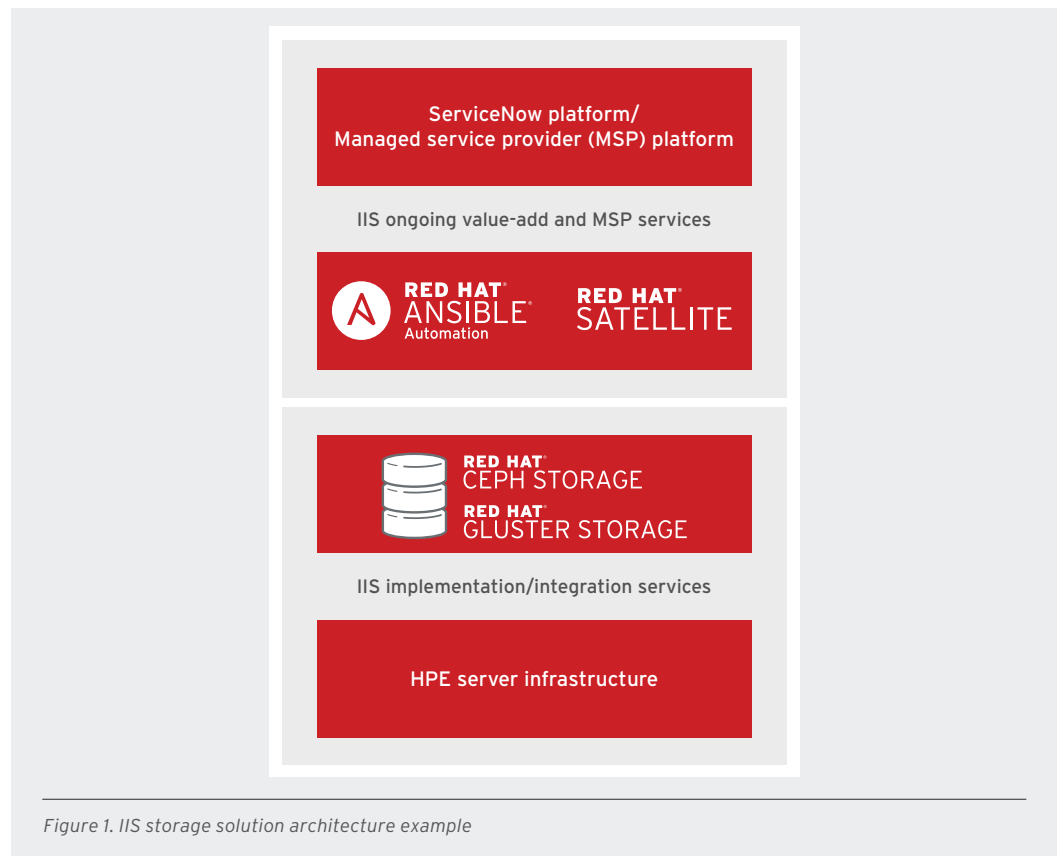


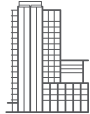
Figure 1. IIS storage solution architecture example

## SOLUTION BENEFITS

With IIS storage solutions and services based on robust enterprise technology from Red Hat and built on high-density HPE servers, your organization can benefit from the advantages of persistent, petabyte-scale, software-defined storage to provide greater value than traditional storage appliance approaches. Designed for modern workloads and founded on open source innovation and industry standard technologies, these joint storage offerings deliver:

- **Cost-effectiveness.** Lets you tailor the optimal price and performance mix of standard servers and disks to each workload for cost-effective end-customer solutions.
- **Rapid scalability.** Allows you to add servers as your storage requirements expand, without having to pay for unused servers.

## SOLUTION OVERVIEW Scale petabytes of data storage at the speed of your enterprise



### ABOUT RED HAT

Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.

**NORTH AMERICA**  
1 888 REDHAT1

**EUROPE, MIDDLE EAST,  
AND AFRICA**  
00800 7334 2835  
europe@redhat.com

**ASIA PACIFIC**  
+65 6490 4200  
apac@redhat.com

**LATIN AMERICA**  
+54 11 4329 7300  
info-latam@redhat.com



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- **Flexible pricing structure.** Offers tiered consumption-based pricing models, with stratified levels of service and support.
- **Integrated management.** Provides troubleshooting with statistics and information about every cluster component with an easy-to-use graphical interface.
- **Security.** Builds at-rest encryption solutions with limited access at the pool, user, bucket, or data level.
- **High availability.** Provides advanced data protection—including erasure coding or replication across nodes or even geographies—to deliver data durability, high availability, and high performance.

With IIS software-defined storage solutions based on Red Hat technologies and HPE servers, enterprises can gain the scalability, capacity, and availability they need to transform their unstructured data into a valuable business asset.

### Learn more

Learn more about IIS storage solutions at [www.iistech.com/solutions/object-storage-as-a-service/](http://www.iistech.com/solutions/object-storage-as-a-service/) or email us at [redhat@iisl.com](mailto:redhat@iisl.com).

### About IIS

International Integrated Solutions, Ltd. (IIS) has delivered business-critical IT solutions and services successfully for over 25 years. Our clients include the Fortune 500, mid-sized enterprises, and fast-growing startups across multiple industries. We provide professional, end-to-end consulting services, comprehensive IT solutions including cloud and big data, and hardware and software integration. We have achieved the highest levels of partner designation from industry-leading vendors including HPE, VMware, and Red Hat.

### About Hewlett Packard Enterprise

Hewlett Packard Enterprise is an industry-leading technology company that enables customers to go further, faster. With the industry's most comprehensive portfolio—spanning the cloud to the datacenter to workplace applications—our technology and services help customers around the world make IT more efficient, more productive, and more secure.