

# DELL EMC ISILONSD EDGE

## Software-defined scale-out NAS on industry standard hardware for the enterprise edge

### ESSENTIALS

- Software-defined scale-out NAS
- Simple and efficient storage for enterprise edge locations
- Deploy on industry standard hardware (x86 servers)
- Deploy on a minimum of one server
- Deploy on physical or virtual SAN, ScaleIO, and VxRail
- Scales up to 36 TB capacity
- Tightly integrated with VMware and managed from vCenter
- Free and frictionless version for non-production use
- Runs the same Isilon OneFS operating system as the Isilon appliance
- All Isilon software products are included in the licensed version

Organizations are experiencing unprecedented data growth as a result of which IT must find new and more cost effective ways to increase productivity for global and mobile knowledge workers. While data is geographically distributed, organizations and IT workers are under pressure to provide global visibility and efficient management for all unstructured data, regardless of the location. Enterprises with branch and regional offices are further challenged with dispersed islands of storage that are difficult to reliably maintain and protect.

The Software Defined Data Center (SDDC) is a key driving force for enterprises to simplify, optimize, and accelerate the provisioning and management of infrastructure and data center resources. VMware revolutionized the SDDC well over a decade ago by virtualizing the compute infrastructure. Recent advances in connectivity around Software Defined Networking (SDN) enable rapid and flexible provisioning of networking resources. And, coupled with the dynamic capabilities of Software Defined Storage (SDS) solutions, enterprises have the flexibility and agility to respond rapidly. According to IDC<sup>1</sup>, Software Defined Infrastructure (SDI) will provide business agility improvements, IT cost savings, and IT staff productivity benefits. In a Brief by ESG<sup>2</sup>, 60% of the enterprises are committed to deploying a SDS solution as part of their long-term strategy.

Isilon<sup>®</sup> has shown that the data lake is the enabler that helps organizations effectively and efficiently store and manage unstructured data. Isilon has further extended the data lake to cover not just the assets in the data center but also those in the branch and regional offices. This allows organizations to reduce costs and simplify management by consolidating unstructured data, eliminating inefficient storage silos, and streamlining data protection for remote offices.

### Introducing IsilonSD Edge

The Dell EMC IsilonSD product family combines the power of Isilon scale-out NAS with the economy of software defined storage. IsilonSD Edge is purpose-built to address the needs associated with growing unstructured data in enterprise edge locations including remote and branch offices. IsilonSD Edge allows you to quickly deploy a simple and efficient scale-out NAS solution that utilizes industry standard hardware in a VMware environment. IsilonSD Edge also extends the reach of the data lake from your core data center to your edge locations by economically supporting smaller capacity deployments in a virtualized infrastructure.

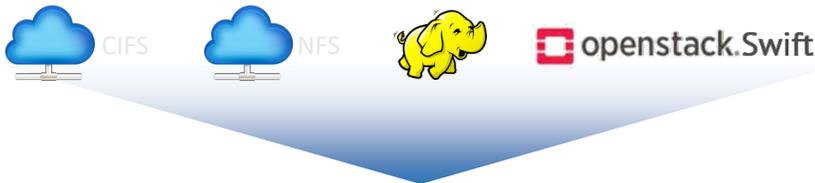
<sup>1</sup> Software Defined Infrastructure: State of the Market and Future Outlook Survey Results, Sep 2015

<sup>2</sup> 2015 Data Storage Market Trends, Oct 2015

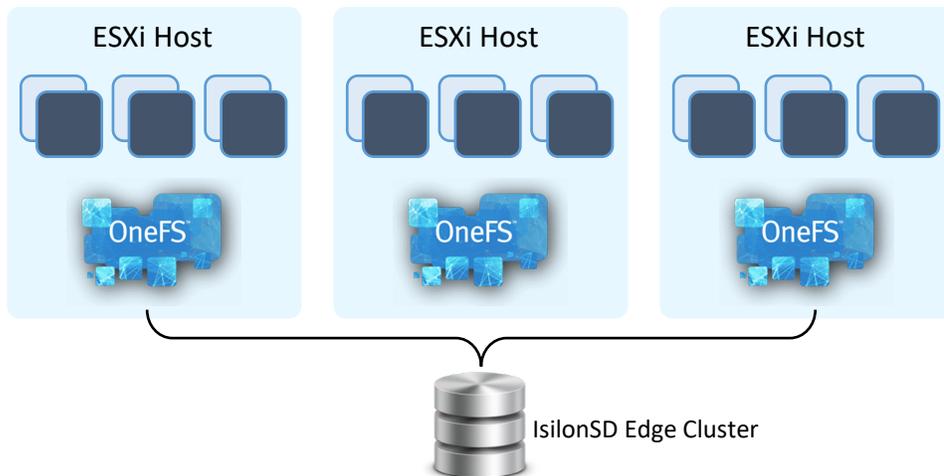
## Hardware scale and capacity

IsilonSD Edge is simple to deploy and manage. Each IsilonSD Edge deployment can scale to 36 TB of storage capacity. Using industry standard hardware in a VMware environment, each IsilonSD Edge deployment may be configured up to a maximum of 6 nodes in a single cluster. Nodes can be seamlessly added at any time for increased performance or capacity. IsilonSD Edge can be installed on a single physical server but should be sized to meet your performance and availability needs. Deploying on less than 3 physical servers means that the cluster will have a lower Mean Time to Data Loss (MTTDL) guarantee. It is recommended to install IsilonSD Edge on a minimum of 3 physical servers to provide an increased level of reliability and availability.

IsilonSD Edge supports direct attached storage (DAS), physical SAN or Virtual SAN storage for data disks, the journal disks and the



## vSphere Cluster



boot disk. Small and Medium-sized businesses that have SAN storage can take advantage of the capacity to deploy a scale-out NAS solution in their environment on their existing hardware.

## VMware integration

IsilonSD Edge is tightly integrated with the VMware environment and runs on top of VMWare ESXi. It leverages vCenter with a management server that runs as a virtual image on VMWare ESXi to install licenses and load the virtual OneFS images onto the ESXi hosts. An IsilonSD Edge cluster can be deployed on 1 through 6 ESXi hosts. The management server also automatically installs a plug-in into vCenter, which is then used to create and reconfigure the cluster. The server and storage resources on the selected hardware do not need to be dedicated to IsilonSD Edge. If performance and capacity needs are met, other applications can run on the same instance of VMware or on the underlying hardware. IsilonSD Edge is compatible with a physical or virtual SAN infrastructure like vSAN or ScaleIO. IsilonSD Edge also supports VMFS and vSAN datastores for deployment. One datastore can be selected per IsilonSD Edge node. IsilonSD Edge supports virtual disk sizes up to 4 TB in size.

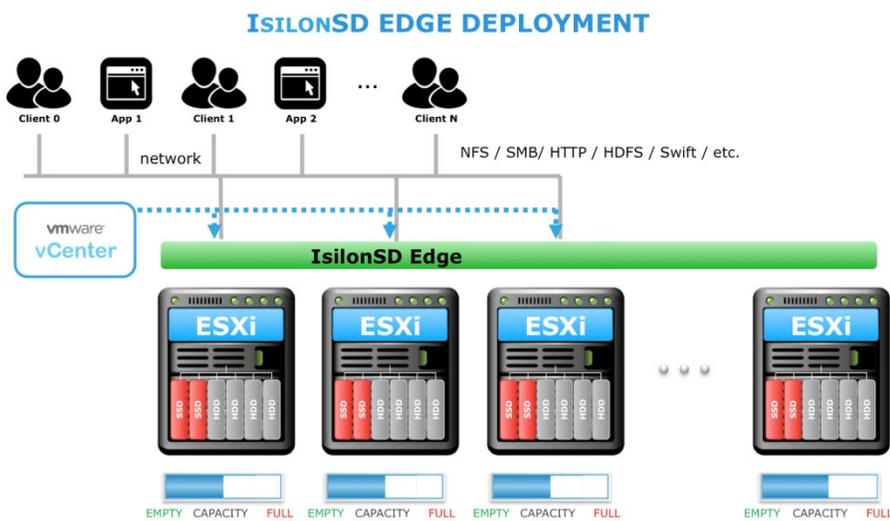
## Isilon software

IsilonSD Edge is built on the powerful yet simple to manage Isilon OneFS operating system and offers all of the software capabilities of the current Isilon appliance-based solution. This includes multi-protocol support to support a wide range of applications and workloads along with enterprise-grade data management and protection capabilities. This increases operational flexibility and lowers storage costs without increasing management complexity.

The production version of IsilonSD Edge incorporates licenses for all Isilon data management and protection software including Isilon SyncIQ for data replication, Isilon SmartQuotas for quota management, and Isilon SnapshotIQ for data backups. Storage administrators familiar with managing Isilon clusters in the core datacenter would be completely familiar in managing an IsilonSD Edge cluster. Almost all the operations in managing a physical Isilon cluster are identical to managing an IsilonSD Edge implementation.

## Challenges at the enterprise edge

Managing data storage at enterprise edge locations is challenging for many organizations. According to ESG<sup>3</sup>, 61% of enterprises surveyed have over 100 remote offices and 68% of these have over 10 TB of data storage requirements at each remote office. Remote office management challenges include limited IT resources to manage the growing storage needs, islands of disconnected storage, inconsistent data protection and backup, increased management complexity, and inefficient storage utilization. IsilonSD Edge meets these challenges while providing a simple and efficient storage solution that can be easily managed. At the same time, IsilonSD Edge increases IT visibility at the edge, provides improved governance, and simplifies overall storage management.



## Improved data protection at the edge

IsilonSD Edge can be deployed at the enterprise edge to consolidate and increase efficiency of storage at these locations. To simplify and streamline backups and disaster recovery, data can be replicated from the edge to the datacenter core using SyncIQ software, which is included with IsilonSD Edge. It can also be used to eliminate the need for local tape-based backups by automatically replicating data from edge locations to your core data center. This helps to address a major pain point for organizations with a large network of remote offices.

IsilonSD Edge also includes support for Dell EMC Secure Remote Services (ESRS) for better remote monitoring, problem avoidance, and proactive incident response

<sup>3</sup> Remote Office Branch Office Technology Trends, May 2015

## Core to edge data distribution

IsilonSD Edge can also be used to distribute content from your data center to enterprise edge locations to provide fast and local access to information. Using SyncIQ for replication enables your storage administrators to make data available locally to users at the edge while maintaining centralized management.

## Free and frictionless download

IsilonSD Edge is also available as a free and frictionless download for non-production use in a test environment. You may obtain a version from the Isilon download [page](#). With it you can test with your applications before you choose to purchase the production version of IsilonSD Edge. The free and frictionless version is limited to Dell EMC Community support and does not include Isilon SmartLock® and Isilon CloudPools software. To convert from the free and frictionless version to a production version requires a simple license upgrade that you may purchase through your Dell EMC representative, authorized Dell EMC reseller or the [Dell EMC Store](#).

### ISILONSD EDGE SOFTWARE DEFINED STORAGE



## IsilonSD Edge Flex license

IsilonSD Edge Flex license enables you to deploy IsilonSD Edge on a virtual or physical SAN infrastructure in a cluster of up to 6 OneFS nodes. It can be deployed on a single server or up to 6 physical servers. A paid license loaded for the IsilonSD Edge Flex version can be deployed in a production environment and can support up to 6 IsilonSD Edge nodes.

## Specifications

	Free and frictionless version	Flex version	Edge version
<b>NUMBER OF NODES PER INSTANCE</b>	3 to 6 nodes	3 to 6 nodes	3 to 6 nodes
<b>CAPACITY PER INSTANCE</b>	Up to 36 TB	Up to 36 TB	Up to 36 TB
<b>OPERATING SYSTEM</b>	OneFS 8.0.0.0 or higher	OneFS 8.1.0.0 or higher	OneFS 8.0.0.0 or higher
<b>PHYSICAL SERVERS</b>	Minimum 1; Recommended 3	Minimum 1; Recommended 3	3 – 6 physical servers
<b>CAN BE USED IN PRODUCTION?</b>	No	Yes, with paid Flex license	Yes
<b>VERSION OF VMWARE ESX</b>	VMware ESXi 6.0, 6.5, 6.7	VMware ESXi 6.0, 6.5, 6.7	VMware ESXi 6.0, 6.5, 6.7
<b>VERSION OF VCENTER</b>	vCenter 6.0, 6.5, 6.7	vCenter 6.0, 6.5, 6.7	vCenter 6.0, 6.5, 6.7
<b>DELL EMC ISILON SOFTWARE INCLUDED</b>	Dell EMC Isilon <a href="#">SmartConnect</a> , <a href="#">SnapshotIQ</a> , <a href="#">SmartQuotas</a> , <a href="#">SmartPools</a> and <a href="#">InsightIQ</a> , <a href="#">SyncIQ</a>	All Dell EMC Isilon software included	All Dell EMC Isilon software included

## Summary

IsilonSD Edge is a powerful yet simple storage solution purpose-built for enterprise edge locations that combines the power of Isilon scale-out NAS with the economy of software defined storage that utilizes industry standard hardware in a VMware environment. With it, you can extend your data lake from your core data center to your enterprise edge locations to store, manage, protect and analyze data more effectively and efficiently.

## TAKE THE NEXT STEP

Contact your Dell EMC sales representative or authorized reseller to learn more about how IsilonSD Edge can benefit your organization.

Also see our solutions in the Dell EMC Store at <https://store.emc.com/isilon>.



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