



**Press Release:** AuriStor File System (AFS<sup>1</sup>) Certified by Red Hat for Enterprise Linux 8.4

New York, NY – April 27, 2021 – AuriStor, Inc. announced today that the entire AuriStor File System suite including Red Hat Enterprise Linux kernel modules are now certified by Red Hat for Red Hat Enterprise Linux 8.4. This makes AuriStorFS the only AFS-family software that is certified for use on any Enterprise Linux distribution.

AuriStor CEO, Jeffrey Altman, cites Red Hat Enterprise Linux performance and stability as reasons to recommend Red Hat Enterprise Linux for AuriStorFS deployments, “Red Hat consistently delivers performance improvements release after release while providing the long term stability that ISVs and large scale Enterprises require to support their end users. AuriStor’s collaboration with Red Hat enables AuriStor to provide certified AuriStorFS updates to our mutual customers within 24 hours of any Red Hat Enterprise Linux update.”

AuriStor’s flagship product, AuriStorFS, is an object-store backed filesystem namespace that provides secure cross-platform file access within a global namespace while transparently providing client systems data locality, high availability, and redundancy.

Each AFS volume is an object-store hosting a rooted directory tree that can be mounted locally or within the global AFS namespace. User access is commonly performed using standard Linux system calls; user-space libraries are available for applications that require enhanced capabilities. Organizations create AFS volumes to store independent datasets, distinct application binary versions, user home directories, and independent website content. Security policies and multi-factor authorization controls can be applied to each AFS volume.

The AuriStorFS client cache consistency model allows data to be read over the network once with subsequent data operations achieved at local disk speed. Sparse file access reduces the amount of data transferred over bandwidth limited networks from AuriStorFS storage servers. A secure callback protocol combined with metadata leases are used for cache invalidation. Application restarts across machine reboots are fast due to the persistent data cache. AuriStorFS client caches are secured by identity-based restricted access to cached data based on file-level access controls for authorized users/applications. This allows multiple applications to concurrently leverage the shared cache while properly respecting per file data access controls. This cache is also shared across multi-tenant containerized applications which can dramatically reduce container startup times and the amount of local storage required.

The AuriStorFS multi-factor constrained elevation authorization model constrains access using controlled with user-modifiable per-object access control lists and per-volume access control lists (system administrator modifiable). AuriStorFS combined-identity authentication provides a unique level of data protection since access is doubly restricted, allowing data access only from

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specified machines and from specific authenticated users/applications on that machine. This combined identity capability makes AuriStorFS uniquely suitable for general use, over-capacity and burst-mode use over the public cloud.

Tracy Di Marco White's Big Mountain Data and Dev Conference presentation '[Storage and Software Deployment: Bigger on the Inside](#)'<sup>2</sup> describes how a major financial institution uses AuriStorFS to distribute software at scale to hundreds of thousands of servers within geographically distributed data centers and public clouds. The firm currently operates at least 65 AuriStorFS Cells (administrative domains), each with two to six AuriStorFS storage servers. AuriStorFS clients transparently switch to alternate storage servers based upon data availability with minimal impact to client applications. Each of the firm's cells can service tens of thousands of clients. The ease of installation and ease of management of AuriStorFS is important considering the wide deployment of AuriStorFS throughout the firm. AuriStorFS provides the performance, security, auditability and stability they rely on for the global distribution of mission critical software.

"We use AFS to provide software distribution at scale to hundreds of thousands of servers, deployed throughout private and public cloud, managed by separate units independent from the AFS engineering team.

AFS allows distribution of tens of terabytes of software to these clients using less than 10GB of local space on each with close to the speed of local disk, supported by three to five AFS servers per cell"

- Tracy Di Marco White, Unix Engineering

The firm distributes ~30TB of data in more than 500,000 volumes to over a hundred thousand servers. Application refreshes are released as often as every two minutes. AuriStorFS' volume centric data distribution, atomic publishing, in-namespace mount points and cache coherency enables them to achieve this massive scale. This is all accomplished using commodity hardware or standard cloud hosted VMs for running applications.

"This allows us to provide hundreds of thousands of hosts that perform business functions to the firm, at close to local disk speed, without repeated, possibly expensive, unnecessary network usage, and with a standard small disk allocation, rather than more expensive larger disks."

- Tracy Di Marco White, Unix Engineering



The transition to container-based application deployments is critical to Auristor customers. In addition to the AuristorFS CSI storage driver which enables AFS data access from containerized applications, Auristor is also working closely with Red Hat on forthcoming solutions to container-based software deployments at massive scale using Red Hat OpenShift and AuristorFS.

Auristor encourages customers to upgrade existing Red Hat Enterprise Linux 6 and Red Hat Enterprise Linux 7 deployments to Red Hat Enterprise Linux 8 because of the significant network performance improvements and XFS enhancements. AuristorFS storage servers can pump more data faster and with reduced disk I/O and space requirements.

“As organizations undergo digital transformations, modern software technologies are enabling them to build and deploy more flexible applications at scale,” said Mike Werner, senior director, Global Technology Ecosystems, Red Hat. “Customer success in this area often requires a broad ecosystem working together to advance industry standards and to certify solutions that have been tested to work together. By collaborating with companies like Auristor, Red Hat is aiming to help customers accelerate their path to innovation.”

## ABOUT AURISTOR, INC.

Auristor, Inc. produces secure, scalable cloud storage solutions that reduce the cost of managing the ever-growing unstructured storage needs of global enterprises, small & midsize businesses and eventually, individuals. Auristor envisions a world in which all users experience the benefits of a universal globally accessible file namespace that provides all the capabilities and performance of local disk file systems. In this world, operating systems, applications, and user data are executed locally for performance but are logically managed in the network simplifying hardware replacement, reducing risk of data-loss, improving accessibility, providing new opportunities for collaboration, application development and business models.

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2 <https://www.youtube.com/watch?v=njH85tEUqcU>

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