

# Pixit Media: PixStor

The World's first Data-Aware Software Defined Storage Platform  
Designed Exclusively for the Media Industry

## Additional Features and Benefits

- Predictable, reliable performance from a unified IT architecture
- Built-in storage virtualisation and information lifecycle management
- Advanced replication, mirroring and data protection as standard
- Snapshots protect against accidental deletion and provides data versioning
- User definable metadata enriches data with human discoverable information
- Tape, object and cloud storage integration drives down the cost of 'cold' data retention without increasing access complexity
- Quotas provide fair-share and chargeback capabilities to users, departments and projects
- Backup acceleration reduces data protection windows from days to minutes
- Intelligent, dynamic networking improves data flow efficiency and reacts to network hotspots automatically

## The Solution

PixStor, Pixit Media's software-defined scale-out storage solution, provides flexible scalability and predictable performance, without relying on expensive proprietary hardware technology. This allows content creators and distributors of any size to efficiently and granularly manage expansion and data retention costs as workflows change.

PixStor improves on traditional storage solutions by combining the performance of SAN-based technology with the usability of centralised Scale-Out NAS into a single, software-defined platform. Facilities are capable of concurrently accessing any type of data from any part of the workflow without performance degradation using industry standard sharing protocols (SMB, NFS, etc).

With a software-based approach to performance and capacity scaling, PixStor users are free to choose the most appropriate disk, tape and cloud components for their requirements from a wide-range of certified components, and services, all tightly integrated and supported by Pixit Media's professional services and support team. By providing appliance functionality without traditional appliance restrictions, PixStor is able to reduce growth and support costs by as much as 90% by removing hardware vendor lock-in.

## Predictable data storage and delivery cost model with guaranteed performance

- Software-defined architecture: Agnostic to hardware vendors while enhancing customer purchasing power Uses policy-based data management to provide 'right-priced' technology pools within the same overall namespace
- Eco-system allows seamless migration from one generation of server and storage technology to another
- Scales to multi-petabyte capacities and near-limitless performance
- Supports hundreds of concurrent streams of media playback and editing up to 4K resolution

## Deep insight into data usage habits with PixStor Analytics

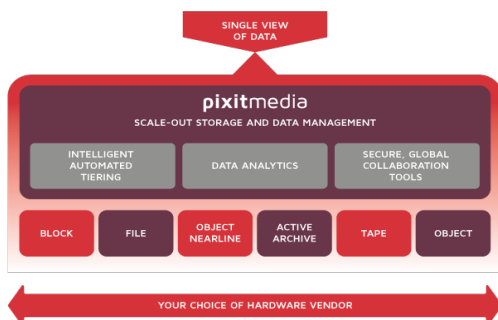
- Centrally tracks thousands of performance metrics for hotspot identification and historical analysis
- Identify trends in usage and capacity to support informed expansion and purchasing decisions
- Tracks and granularly calculates capacity usage across all storage resources by user, file type and location
- Simple yet extendable web-based analytics interface

## Easy to search and access

- Automatically ingests data and associated metadata into the Pixit Media EasySearch interface
- Automatically transcodes datas into preview proxies for quick browsing and result validation
- Harvests metadata directly from images, videos, sequences and documents, reducing the need for human intervention when curating datas
- Users are provided with instant access and search of datas using relevant, human terms
- Elegant and intuitive search interface with auto-filtering capabilities

## Simple to Manage

- Web-based administration interface for common administrative tasks
- Customisable performance dashboards for real-time and historical performance analysis
- Single pane of glass access to all PixStor web interfaces
- Intuitive CLI and APIs



## Protects and Secures

- PixStor APSync provides asynchronous replication, DR and versioned data retention for a fraction of the cost of traditional backup solutions - without the associated complexity
- Reduces backup, archive and replication windows by a factor of 60 over traditional data protection mechanisms Selectively and intelligently replicates and archive data to a variety of cloud, disk and tape based storage anywhere in the world
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- Encrypt datas and data communication in-flight
- Open architecture ensures up-to-the minute security updates

## A truly 'global' storage solution

- Fits to any multi-user workflow
- Enables access your datas from nearly any connected device through industry standard file sharing protocols
- PixCache enables geo-distributed working, burst render and remote ingest within a seamless and transparent workflow

## Embed PixStor into existing applications

- Python API provides rapid application development interface into the solution for your key applications
- Directly interrogate and control the solution, data and data metadata from in house and third party software packages and in-house developed applications
- Simple programming interface removes the complexity and provides 'DevOps'-style management capabilities for systems administrators and pipeline developers

## Seamlessly tier data to nearly any external storage resource with PixStor Ngenea

- Provides a single logical ingest point for seamless tiering to object, tape and near-line external resources
- Automatically migrates data between external storage resources, providing a future technology migration path

## Specifications

### Highly Available, Load Balanced Connectivity

- NFS, SMBv2/3, FTP, HTTP
- Functional, performant and reliable SMB stack for macOS

### Connectivity

- 1/10/20/25/40/50/56/100Gb Ethernet
- SAS and Fibre Channel
- Infiniband
- RDMA and RoCE Support

### Information Lifecycle Management

- Automated policy-based placement and migration between flash, disk, tape and object

### Operating System Support

- Windows 7,8 and 10
- Windows Server 2008, 2012, 2015
- Red Hat Linux/CentOS/Scientific Linux 6 and 7
- SLES Linux 11 and 12
- Ubuntu 14.04/16.04

- Debian 7/8.1
- OSX 10.9, 10.10, 10.11, 10.12

### Data Protection

- Directory level snapshots (up to 256,000)
- Windows previous version support for 'point and click' file restores
- Synchronous and Asynchronous replication with point-in-time recovery states
- Backup acceleration

### Performance Acceleration

- Block and file-based prefetching
- Intelligent pattern learning
- Tunable file and metadata caching
- Local client caching for high performance requirements with reduced cost

### User Management and Security

- User, group and directory quotas
- Integration with LDAP and Active Directory
- MPAA-capable
- POSIX file systems

### Virtualisation

- Backend support for VMware datastores and OpenStack Cinder/Glance
- Writeable file clones for rapid VM deployment
- Operates in Google GCP, Microsoft Azure and Amazon AWS for burst render

### Storage Backends

- Flash and Disk
- Tape
- S3-compliant object storage (Cleversafe, Scality, HGST, Ceph, Swift, BlackPearl, etc)
- S3-compliant cloud storage (Amazon S3, Sohonet, etc)
- POSIX file systems

### Proven Applications

- Premiere, Final Cut, Avid Media Composer, Resolve, RV, Nucoda, Nuke, Nuke Studio, Flame, Smoke, After Effects, Scratch and many, many more