ACTIVE CIRCLE

SNIA Winter Symposium

Software for building Private Clouds

Philippe Boyon

AGENDA

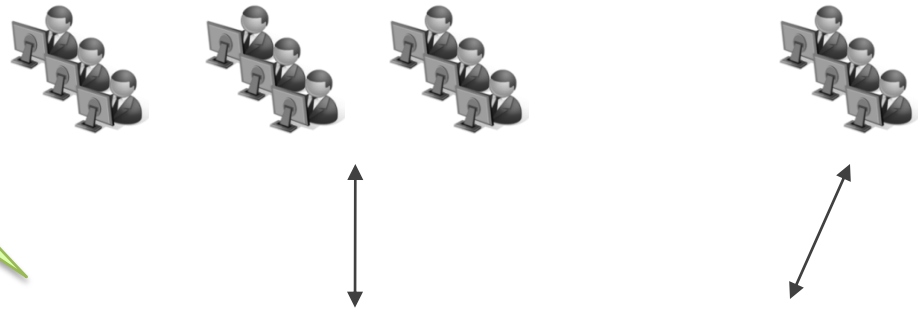
- Who we are
- What is Active Circle, features & benefits
- How we sell
- Customer examples

ACTIVE CIRCLE – COMPANY BACKGROUND

- **Founded in 2002 by Dominique Vinay**
  - Dominique is founder of Atempo, he designed backup and recovery software Time Navigator
- **His vision**
  - Starting point: future of data protection as a tool?
  - File Storage is perceived as a service by the end-users. All they want is easy access, availability, no data lost.
  - One step further: what about including data management as services in the storage system?
- **Based in Jouy en Josas, France (near Paris)**
  - 30+ customers

WHAT IS ACTIVE CIRCLE
FOR THE USERS

Volumes or ‘shares’ via CIFS, NFS or FTP



A single namespace

Integrated with AD and other directories, full ACL support

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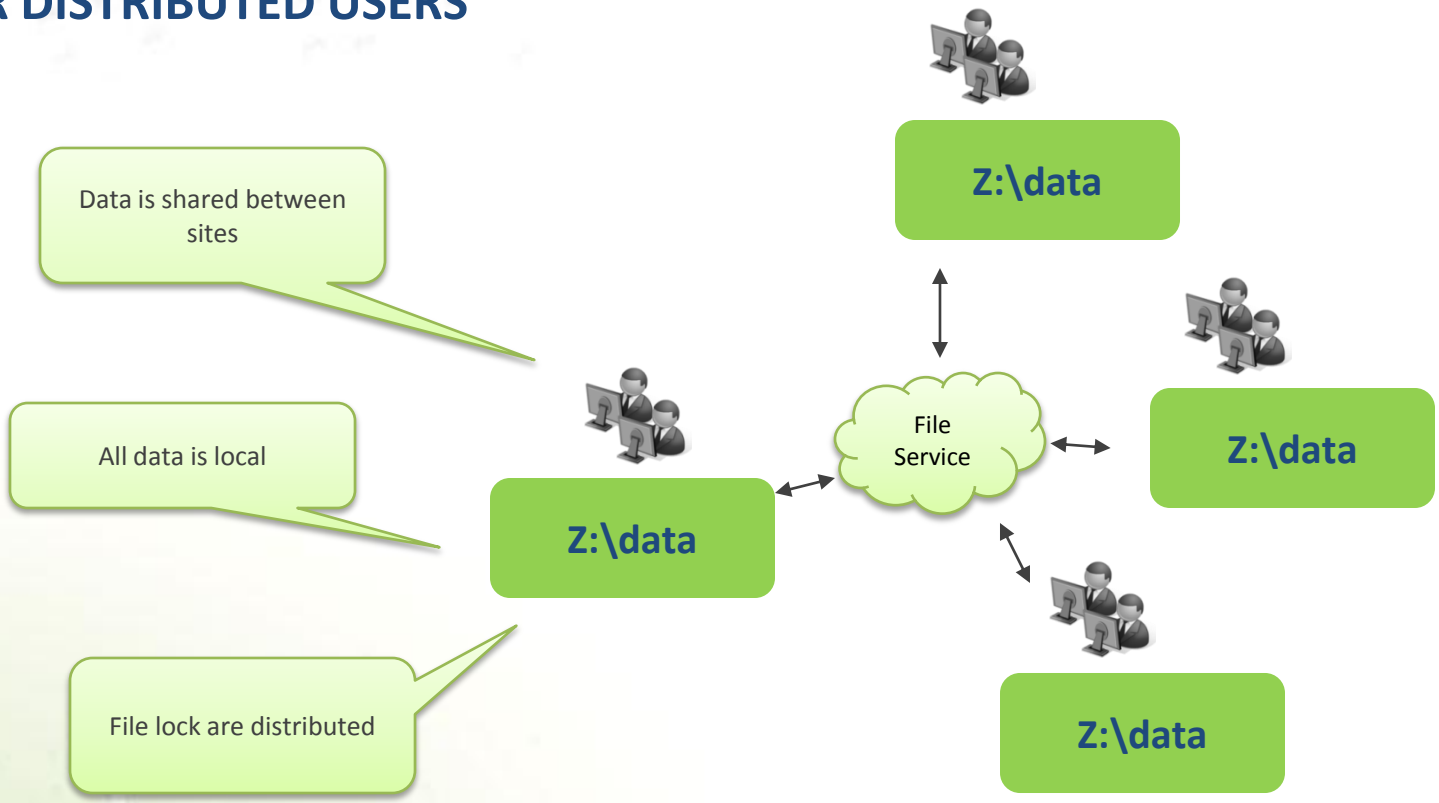
Access to previous versions of files via browser interface

For the user, Active Circle is a virtual NAS with versioning

WHAT IS ACTIVE CIRCLE

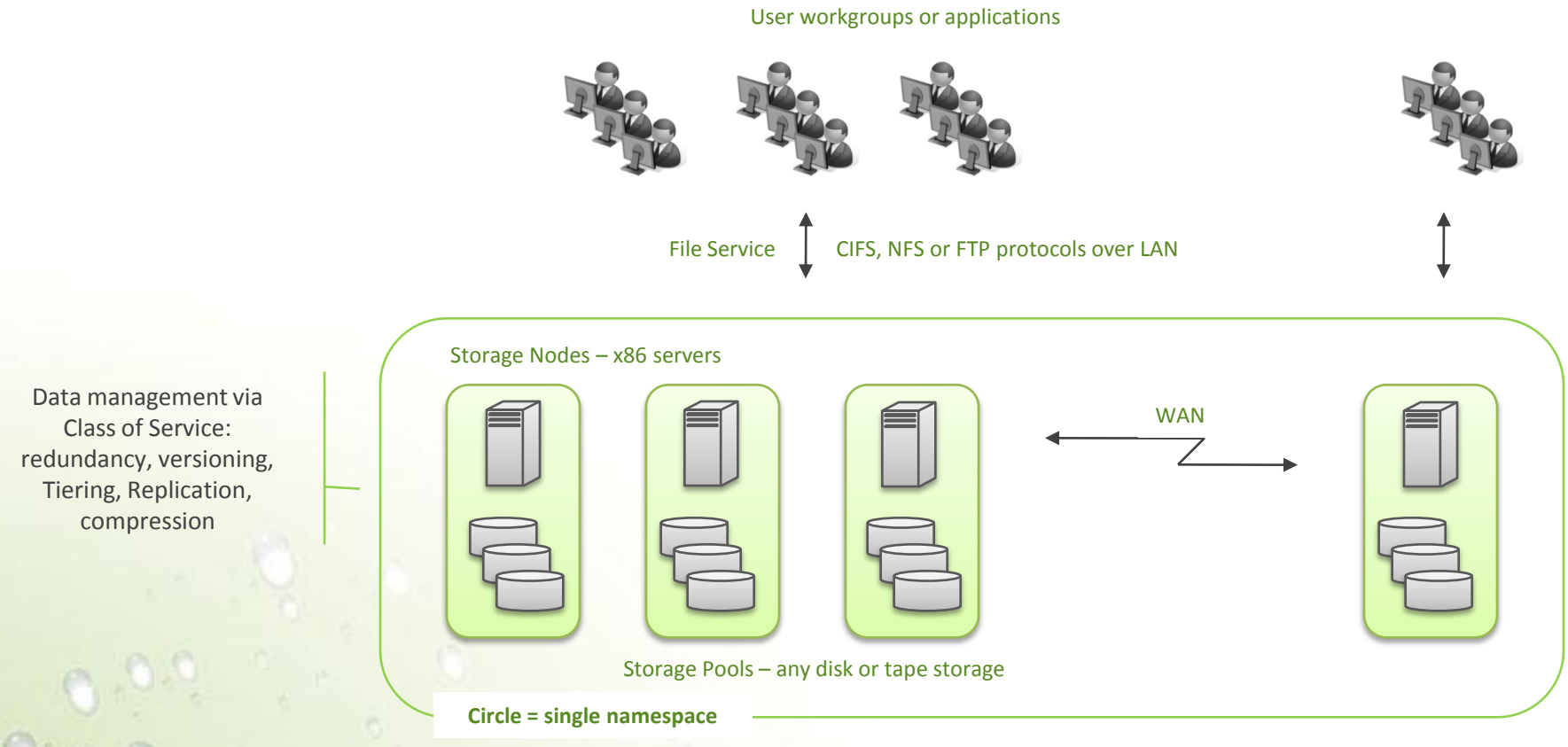
FOR DISTRIBUTED USERS



Transparent Access
Local Data
Distributed lock management

WHAT IS ACTIVE CIRCLE

A DISTRIBUTED, SELF-PROTECTED FILE STORAGE PLATFORM WITH INTEGRATED LIFECYCLE MANAGEMENT - ON COMMODITY HARDWARE



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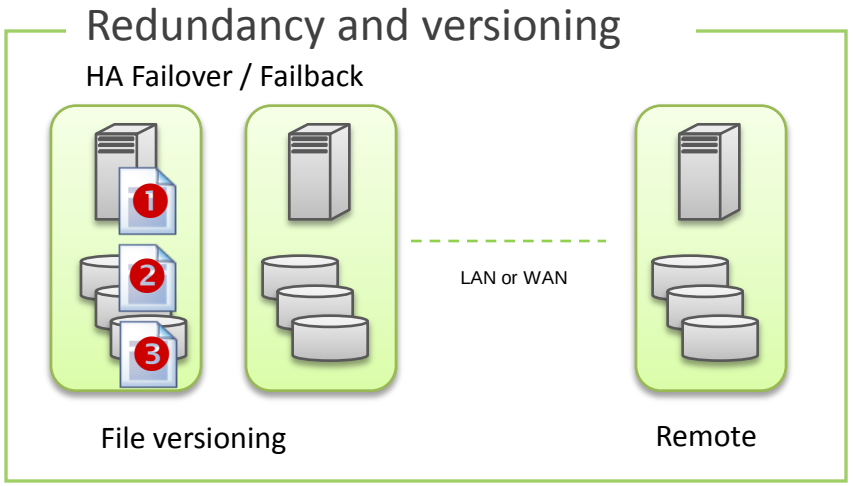
A FULLY-PROTECTED STORAGE PLATFORM

- **Redundant and distributed**
  - On a LAN, failover and failback
  - With remote sites, disaster/recovery
  - Optimized data transfer
- **Additional features**
  - Versioning
  - Export in standard format (tar) on removable media for long-term retention
- **All included**
  - No need for third-party replication, backup nor HA clustering tools.



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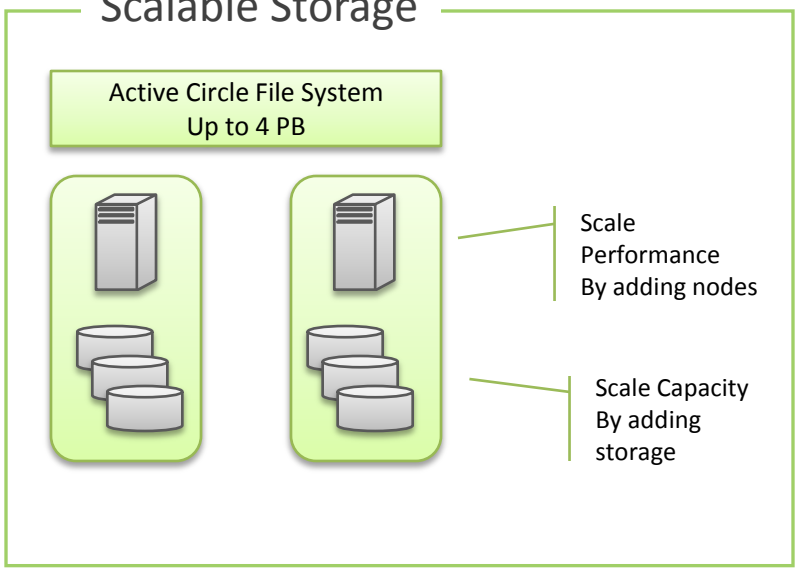
SCALABILITY

- **Easy scalability**
  - More capacity? Just add disk or tape into existing storage repositories (logical entity)
  - More performance? add nodes
- **No impact on users**
  - No downtime
  - No need to reorganize the data
- **Supports heterogeneous hardware**
  - Mix of legacy and new hardware



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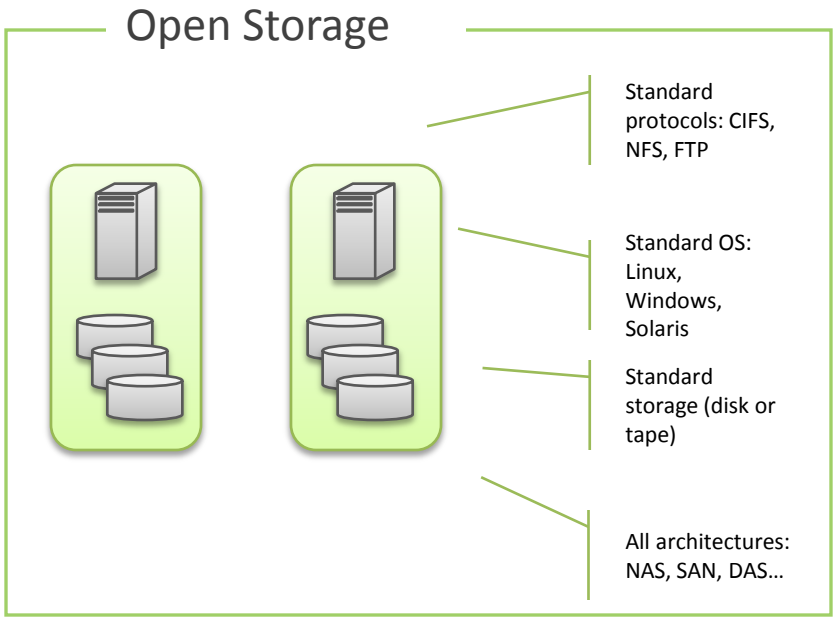
HARDWARE-INDEPENDENT

- **Active Circle is a Software-based Storage Platform**
  - Perpetual License for investment protection
  - Open to standards: Protocols, OS, architectures
  - Open choice of the most appropriate hardware
  - Open to software tools
  - Easy technology migration



- **Benefit: use commodity hardware, reduce cost per Gb**

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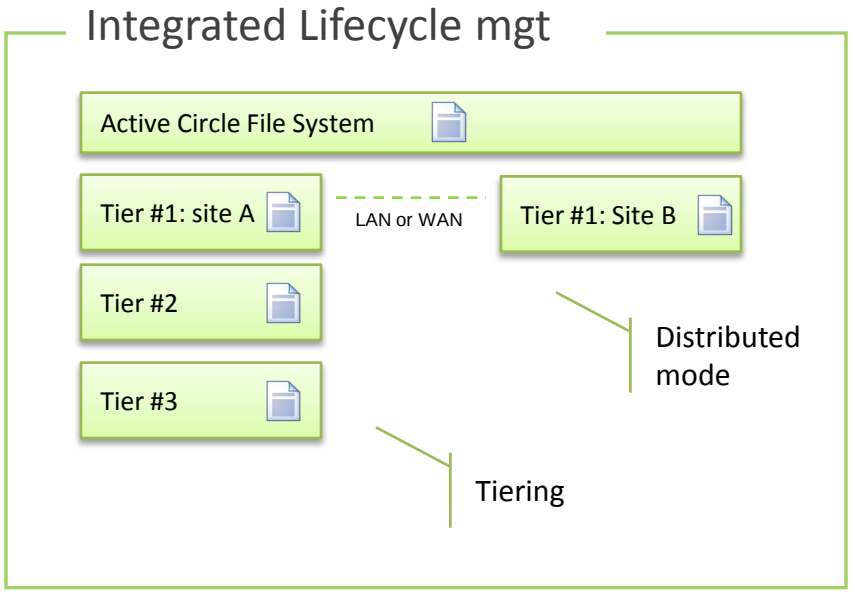
INTEGRATED LIFECYCLE MANAGEMENT

- **The policy defines the relationship between a share and the storage**
  - How many copies
  - On which node or site
  - On which repository
  - Versioning on/off
- **Example**
  - Data in the Paris , London and SF sites
  - Resides for 2 months on fast disk, 3 copies total
  - Then resides for 1 year on capacity disk, two copies
  - Then on tape, one copy only
- **Benefits**
  - Simplified data management
  - Less software to manage



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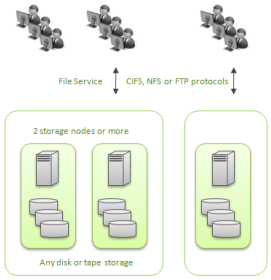
ACTIVE CIRCLE SUMMARY

- **A distributed storage system to provide access from all points within the organization**
  - Perceived as a virtual NAS
- **Scalable to meet demand for capacity or performance**
  - Scale-out architecture, file system (share) up to 4 PB
- **Fully managed by Policies to simplify data management**
  - Distribution of data, level of redundancy, tiering, compression, versioning
- **Resilient and self-protected to increase availability and remove the backup pain**
  - Redundancy, failover, remote copy, versioning
- **Running on commodity hardware for TCO reduction**
  - Linux and Open Solaris, any disk and tape

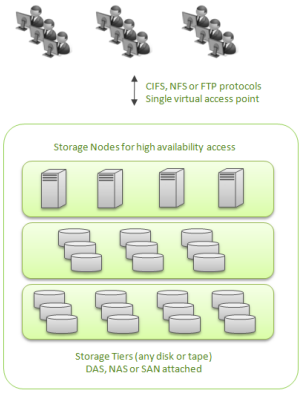
Would you call it a private storage cloud?

HOW IT IS SOLD
IN EDITIONS

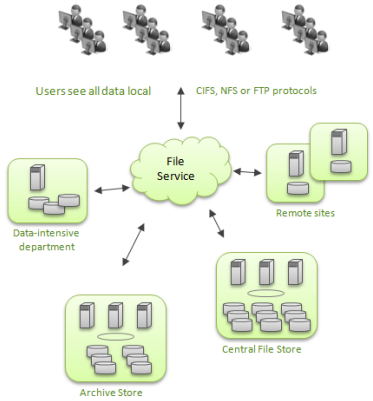
- **File Server Edition**
  - Self-protected file server for SMBs
  - OEM mode with regional manufacturers



- **Archive Edition**
  - Storage repository for large volumes of fixed-content data
  - Target data-intensive customers
  - Via Storage System Integrators



- **Enterprise Edition**
  - Global file service, cloud storage
  - Via Storage System Integrators or direct



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ACTIVE CIRCLE CUSTOMERS

File Server Edition

Self-protected & scalable file server

Press: magazine editing and storage

Local Gov.: file servers for hundreds of users

Archive Edition

Storage repository for large volume of archives

Storage and archiving of IGN digital asset: landscape pictures

Astronomical photography stored and accessible online

Technical data and database dump files, CAD/CAM data

Long-term storage of calls and chat log files

Enterprise Edition

Distributed, service-oriented, global file service

Online Storage Service Provider for clients in the Media industry. SLA-oriented.

Synchrotron's scientific data stored and accessible, on disk and tape, 24/7

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CUSTOMER CASE: SOLEIL

A GLOBAL FILE STORAGE INFRASTRUCTURE FOR EXPERIMENTAL DATA

The Customer

SOLEIL is an accelerator that produces infrared, UV and X-rays to explore matter at the atomic level. As it is running 24x7, Soleil is producing every hour hundreds of huge files.

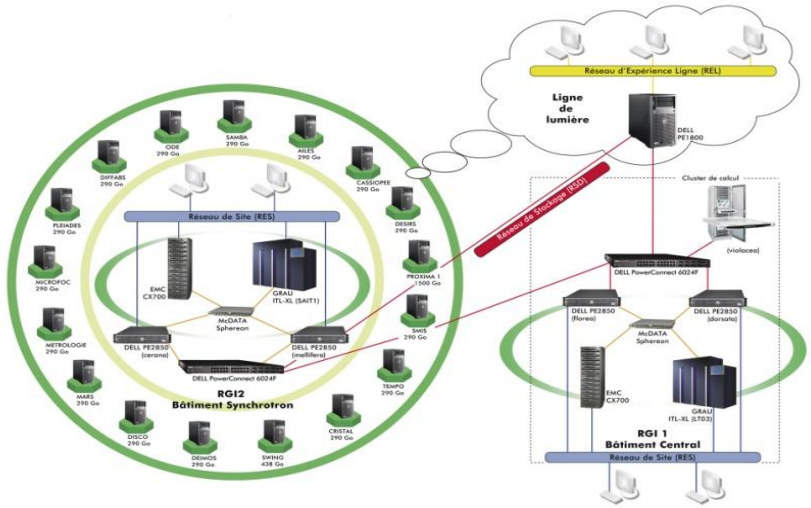
Main Needs

- Data should be always **available** and accessible to the users
- **Scalability** of the system in an open environment
- Fully automated **Data Lifecycle Management**
- Easy management of **technological transitions**

Testimonial

*"Active Circle guarantees the **file service continuity**, in addition to the advantages of a unified Solution that **integrates Security and Data Lifecycle Management. Scalability** is also a key differentiator in a highly evolving project like Soleil".*
Philippe Martinez – In charge of Scientific Computing

The Solution



- **Distributed storage nodes in each lab for data capture and first level storage**
- **All data replicated in central IT room and tiered on disk and tape**
- **Replication on remote site for D/R**
- **All data management automated, no other data management software**

CUSTOMER CASE: CAPITAL VISION

HOSTED VIDEO ARCHIVES FOR THE MEDIA INDUSTRY

The Customer

Capital Vision core business is to archive videotapes for most of the players in broadcasting industry in France. Capital Vision guarantees that the videotapes will be stored in a very safe way and that the contents will never be lost.
Capital Vision is introducing a new service, moving from videotapes to digitalized video files, with the same mission of long-term storage.

Needs

- **Ultimate scalability** as storage requirements will grow with the number of customers
- Superior reliability of the long-term storage
- A solution that allows to **define storage policies in terms of SLA**
- Archive on disk and tape, in standard format to guarantee portability
- Easy to use interface to search and retrieve a video file

The Solution

- **Automated replication in two data centers**
- **Archival in tar format**
- **Definition of SLA-oriented storage policies**
- **New service: digital archive gateway at customer sites**

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CUSTOMER CASE: IGN

ARCHIVING HUNDREDS OF TERABYTES OF IMAGES

The Customer

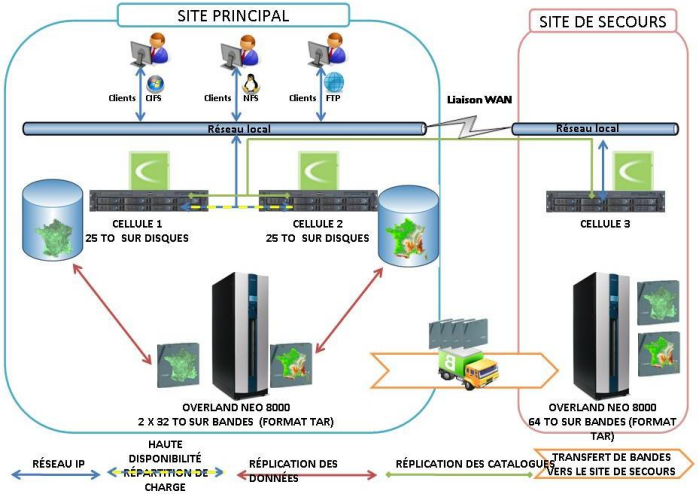
The principal missions of the IGN are to ensure the production, maintenance and distribution of reference geographical information in France.
The IGN produces and stores detailed aerial photography of the entire country, used among other applications by the" Geoportail".

Needs

- Ability to scale to Petabytes and beyond without disruption
- Guaranteed data integrity
- Archive in tar format for data perennity
- Multi-site storage architecture for Disaster Recovery
- Ability to use standard hardware for lower storage TCO

The Solution

- Protection against data corruption (MD5 key)
- Tiered architecture with disk and tape
- 200 TB scalable to 1 PB
- Remote Node for Disaster / Recovery



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ACTIVE CIRCLE TODAY

- **Round B completed in July 2008**
- **Presence in France, starting in the U.K.**
- **30+ customers and growing**
- **Looking for partnerships**
  - Manufacturers
  - System integrators
  - Service providers
  - Technology partners

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www.active-circle.com

CUSTOMER CASE: OBSERVATOIRE DE PARIS

PICTURES OF THE SKY AVAILABLE ONLINE

The Customer

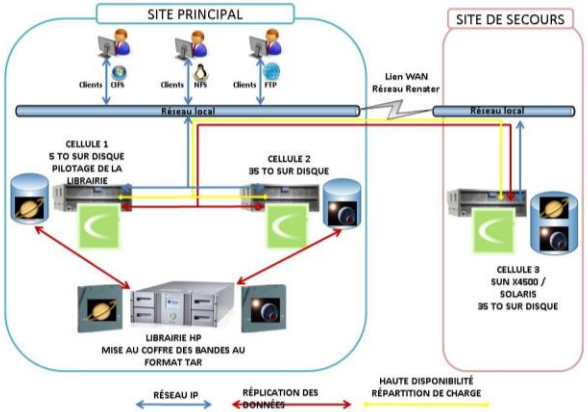
The Paris Observatory is the largest national centre for research in astronomy in France. The "Virtual Observatory" project is to store the digital asset, with online access for the scientific community. The volume of data, currently below 10 TB, is experiencing high growth due to the increase in image resolution.

Needs

- Storage scalability as the data volume will grow very fast
- Lower storage TCO to meet budget requirements
- Data redundancy on disk and tape for data protection
- Off-site replication for Disaster Recovery
- Tar format for data perennity
- Solaris support

The Solution

- Distributed cluster of two SunFire X4500 with 35 TB each
- HP tape library with LTO 4 – 40 TB
- One Cluster Node on remote site for Disaster Recovery



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