Data Trends...
...Driving Storage (*radical*) Evolution

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Sun Microsystems France, SAS
the Data 'Tsunami'
– ingest, archive, distributed, fast, open.....

281 exabytes
45GB /person
10X growth in 5 years
50% thrown away
excess 'halo' effect
1.1 MB email to 4 people
  = 51.5 MB
Driving force for new Patterns

Transaction  ➔  Interaction
Tightly Couple  ➔  Loosely Couple
Reliability, Availability, Serviceability (RAS)  ➔  Predictability, Integrity, Productivity, Efficiency (PIPE)

Yesterday  ➔  Today  ➔  Tomorrow
New Data and Management Economics

**Compute Trend**

New Analytics Emerge

*MapReduce, Hadoop...*

**Data (Storage) Trend**

Semi-structured Data

*Mogile, Bigtable, HDFS...*

- Object Store
- Distributed FS
- Unstructured Data
- Structured Data
- Semi-structured Database
  - ScaleDB, Big Table, SimpleDB hBase

**Architectural shift to the cloud and HPC-style workloads**

- Master/Slave
- Master/Master
- Federated/Sharded

**Open source, general purpose datawarehouse**

- Greenplum

**Proprietary, dedicated datawarehouse**

- TERADATA
- OLTP is the datawarehouse

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Why Sun?
Refactoring Storage as a Service – useful for Data Intensive computing?

Sun's Open Storage Platform direction

Sun Fire X4500/4540 – Thumper/Thor
- 2 dual-core Opteron, 64GB, 48 hot-plug SATA drives, 48TB in 4 RU

Sun Storage 7000 Unified Storage System
- Hybrid ready architecture
- High performance analytics

General Purpose Storage 'Servers'
- Combine server with disk & networking
- Specialized software enables general purpose systems designs to provide high performance data services

Legacy
- Application
- Data Services
- Metadata Mgmt
- Storage

Emerging
- Application
- Data Services
- Metadata Mgmt
- Storage

Future
- Application
- Data Services
- Metadata Mgmt
- Storage

data functionality moves to the infrastructure
What makes the difference?

ZFS
The Zettabyte File System
What a **Storage Server** can do for you?

- Media Server
- Solaris 10 IB SRP
- Video Surveillance Capture
- Solaris 10 ZFS/NFS/CIFS Server/Storage
- SSD inside
- HPC Grid Lustre Server/Storage
- Mainframe Batch Processing
- Bulk Storage
- Solaris 10 SAM-FS Archiving Server/Storage
- VTL DeDup
- iSCSI Target Storage

**OpenStorage with Analytic**

**What’s Next? You will find out!**
THANK YOU

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