

agámi Information Servers



Association of Contingency Planners

April, 2006

Agenda

- ▶ **Introduction to agámi**
- ▶ **File System Replication for Data Protection Solutions**
- ▶ **Product Line**

agami Information Servers

Quad AMD Opteron, HyperTransport based NAS Filers deliver unprecedented breakthroughs

- ▶ High performance, high capacity & low cost combined
 - **Over 1000 MB/sec** vs. industry's best 350 MB/sec
 - 20x better price/performance
 - Up to **19TB in 5U** integrated rack mount module

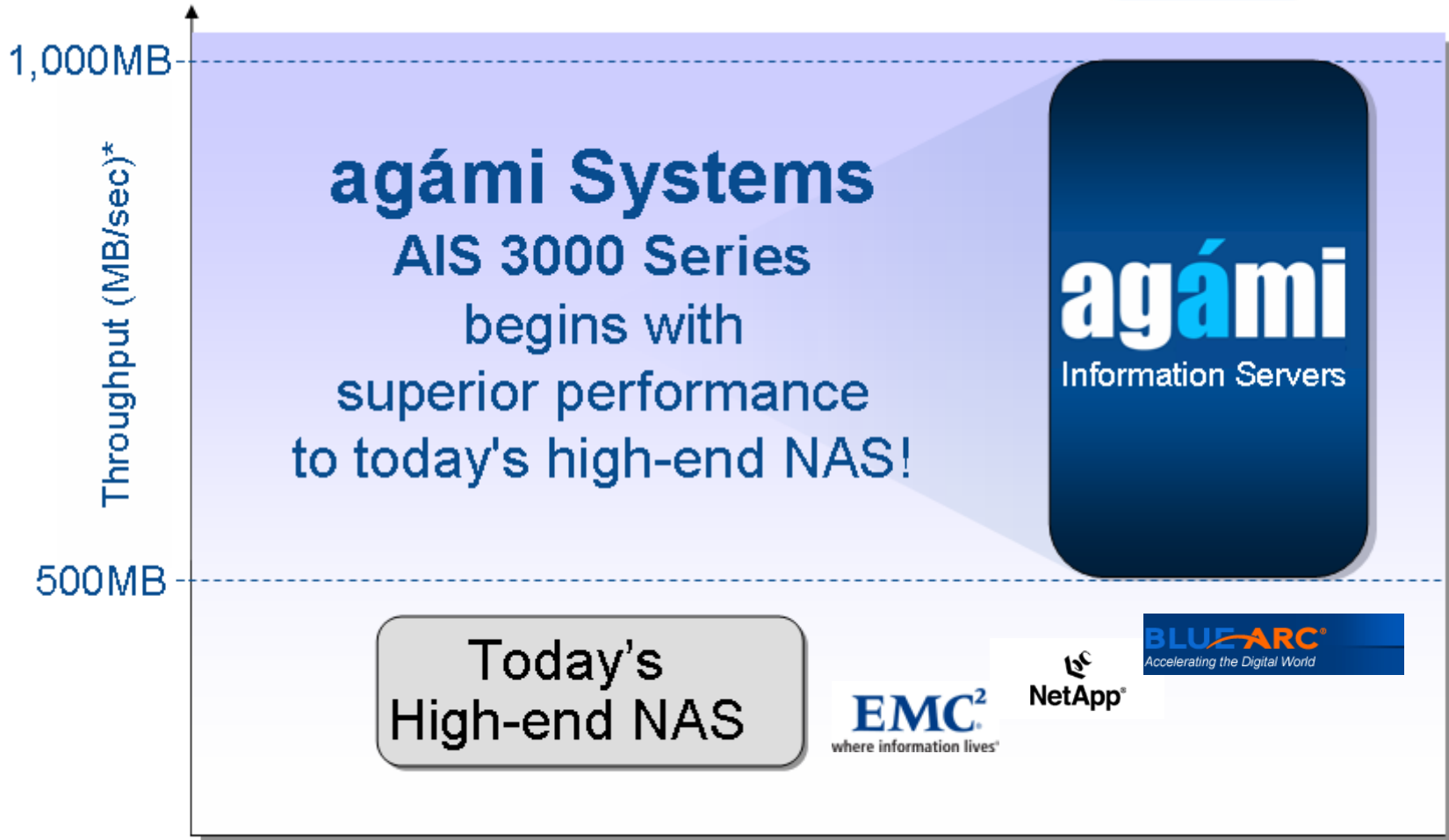
- ▶ System level reliability
 - RAID-5/ES – Enterprise Sparring for fastest recovery
 - Hardware & software monitoring & diagnostics
 - Alerts of system events to agami Support

- ▶ Virtual File System with File System Replication
 - 64-bit virtual file system
 - Integrated “live” file system replication (sync & async)
 - Time-consistent & very efficient over the wire

- ▶ CapEx & OpEx Cost reductions
 - New price-point for reliable, high-performance NAS
 - Very simple management: hides low-level details
 - Low Maintenance, floor space, power & cooling costs

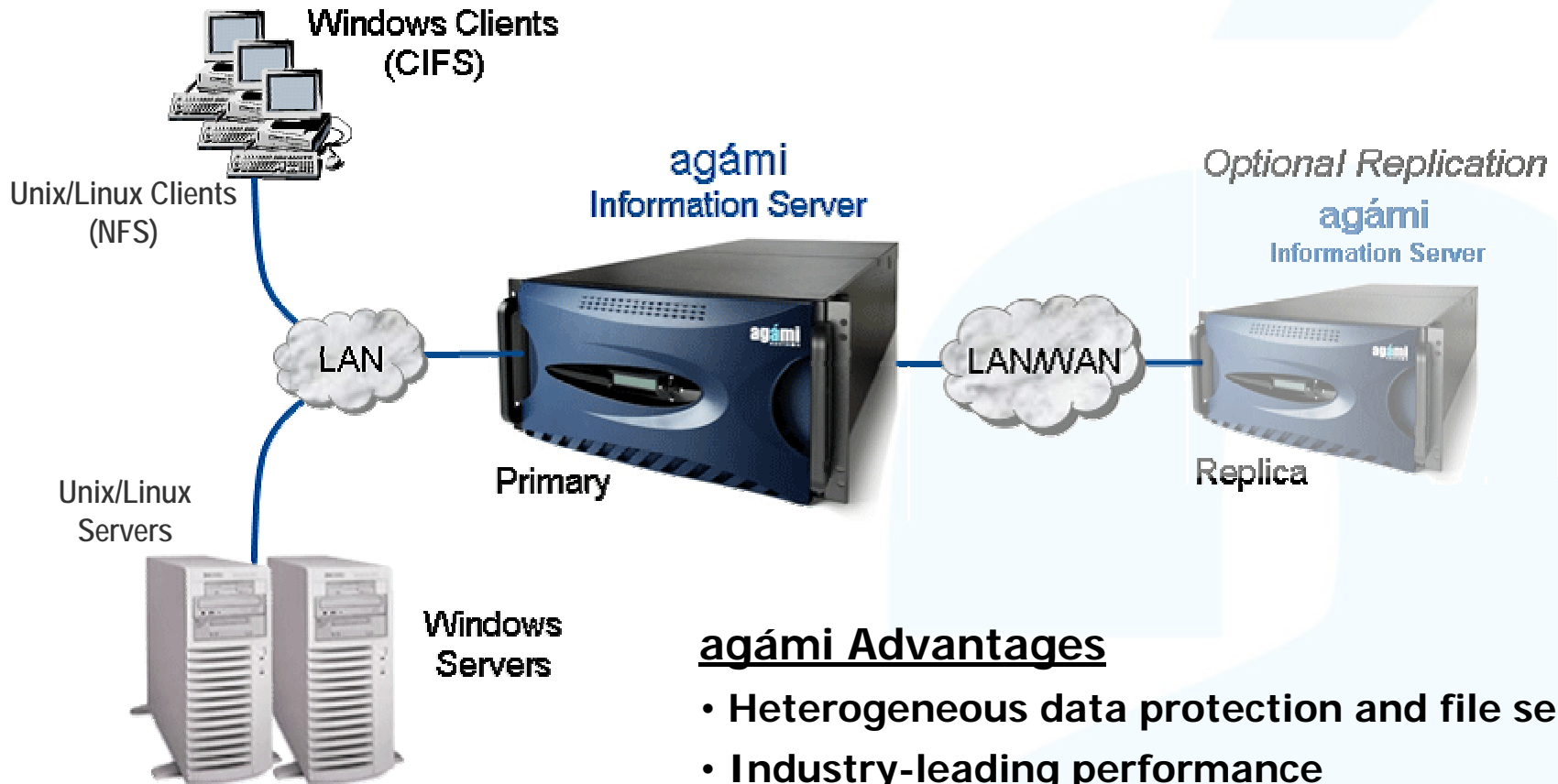


Industry Leading NAS Throughput Performance



* Single module sustained aggregate read throughput

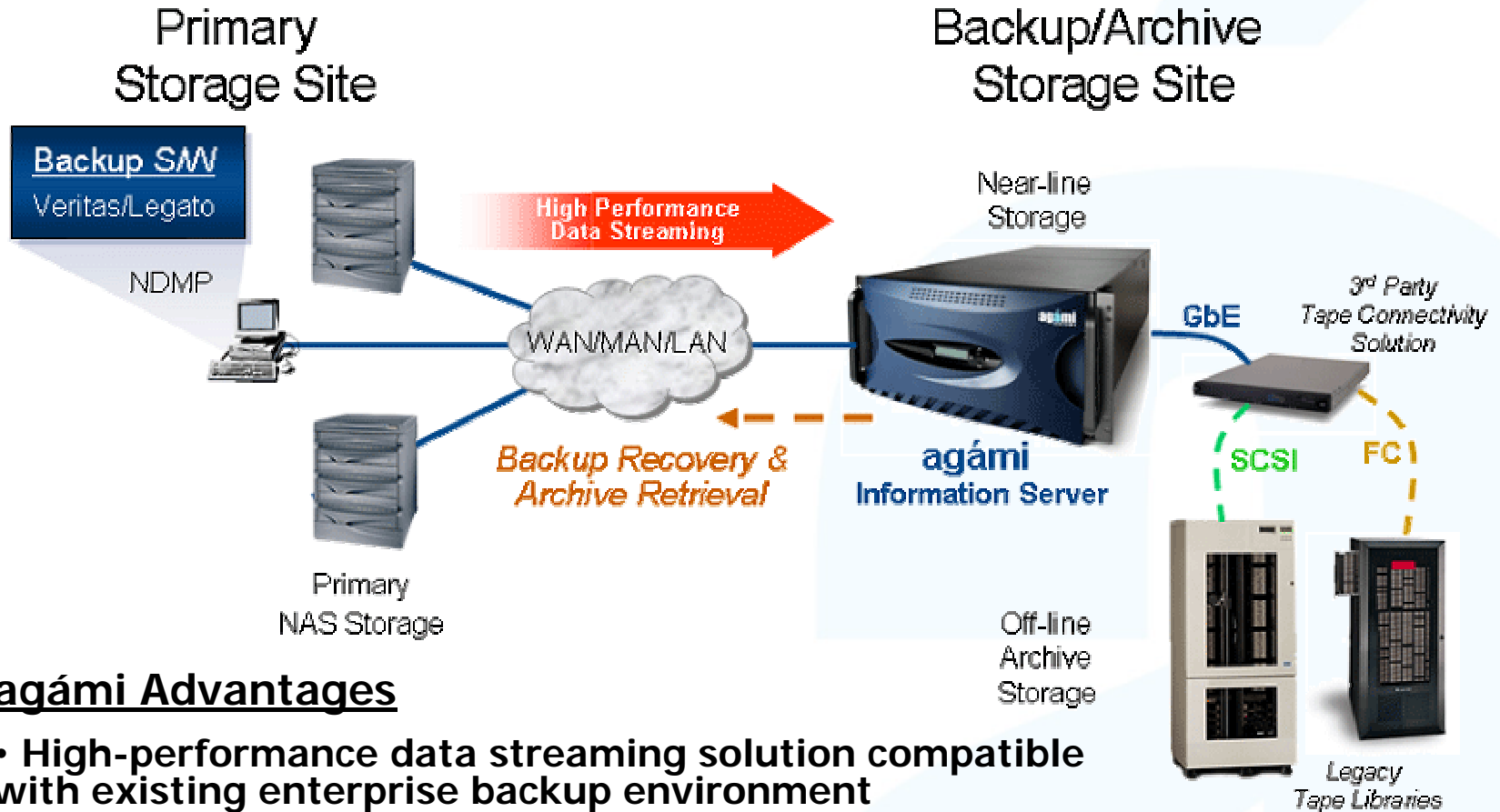
Enterprise File Server



agami Advantages

- Heterogeneous data protection and file serving
- Industry-leading performance
- Affordable, enterprise class solution
- Easy to implement and manage

Near-line Disk Backup



agami Advantages

- High-performance data streaming solution compatible with existing enterprise backup environment
- High-speed disk staging area for backups before archiving to tape
- Cut backup windows and management overhead



File System Replication for Data Protection Solutions

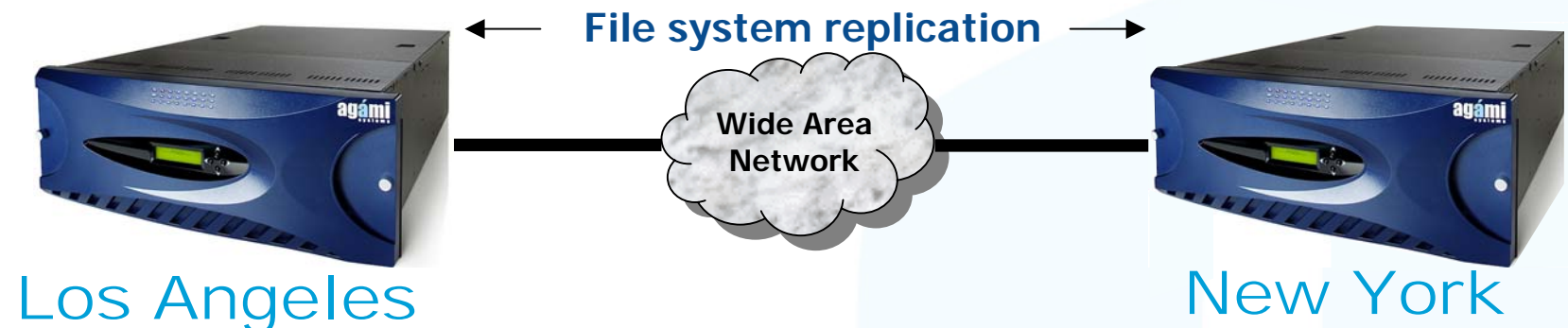
agamiFSR - File System Replication

▶ Industry's First Integrated File System Replication

- File systems can be mirrored over any IP network (LAN, MAN or WAN)
- Synchronous or asynchronous transfer modes
- Mirrored file systems are "live" and readable by applications
- Very efficient over the network (replicates file system transactions, not disk blocks)
- Integrated into agami Information Server – no add-on software required!

▶ Enables Mission Critical Solutions

- Offsite mirroring (disaster recovery)
- Local mirroring (fault tolerance & failover)
- Content Distribution
- Load balancing

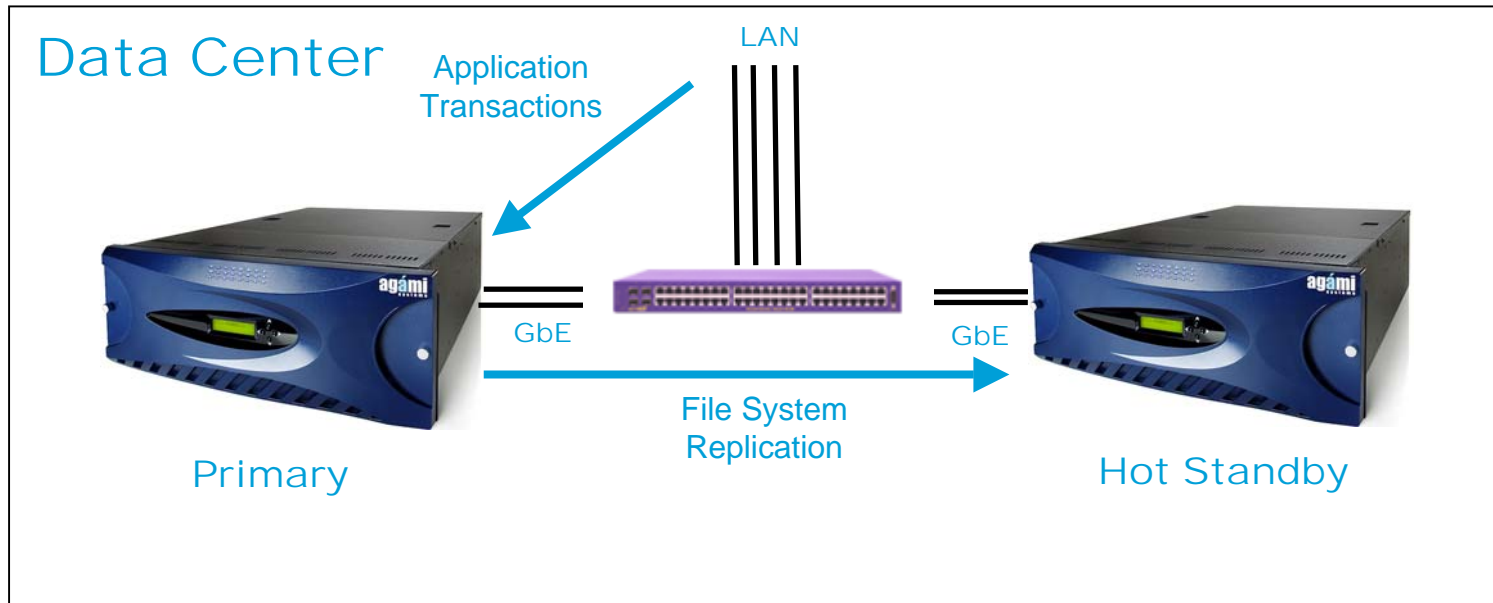


File System Replication Advantages

- ▶ **Most Storage Systems provide “block-level” replication**
 - EMC SRDF & NetApp SnapMirror
 - Fixed-size disk blocks are sent over the wire – wastes network bandwidth
 - Blocks have no meaning to file systems – replicated site is not guaranteed to be time consistent
 - Remote file system is not live or accessible – standby only
 - Blocks are the lowest level in the software stack – bad for latency

- ▶ **File System Replication**
 - agamiFSR
 - Byte-level changes are sent over the wire – most efficient use of network bandwidth
 - Replicates file system “transactions” in time order (sync & async) – hence replicated site is always time consistent
 - Remote file system is “live” and accessible – can be used for load balancing or read-only access (multi-master in a future release)
 - File system is the top of the software stack – better for latency

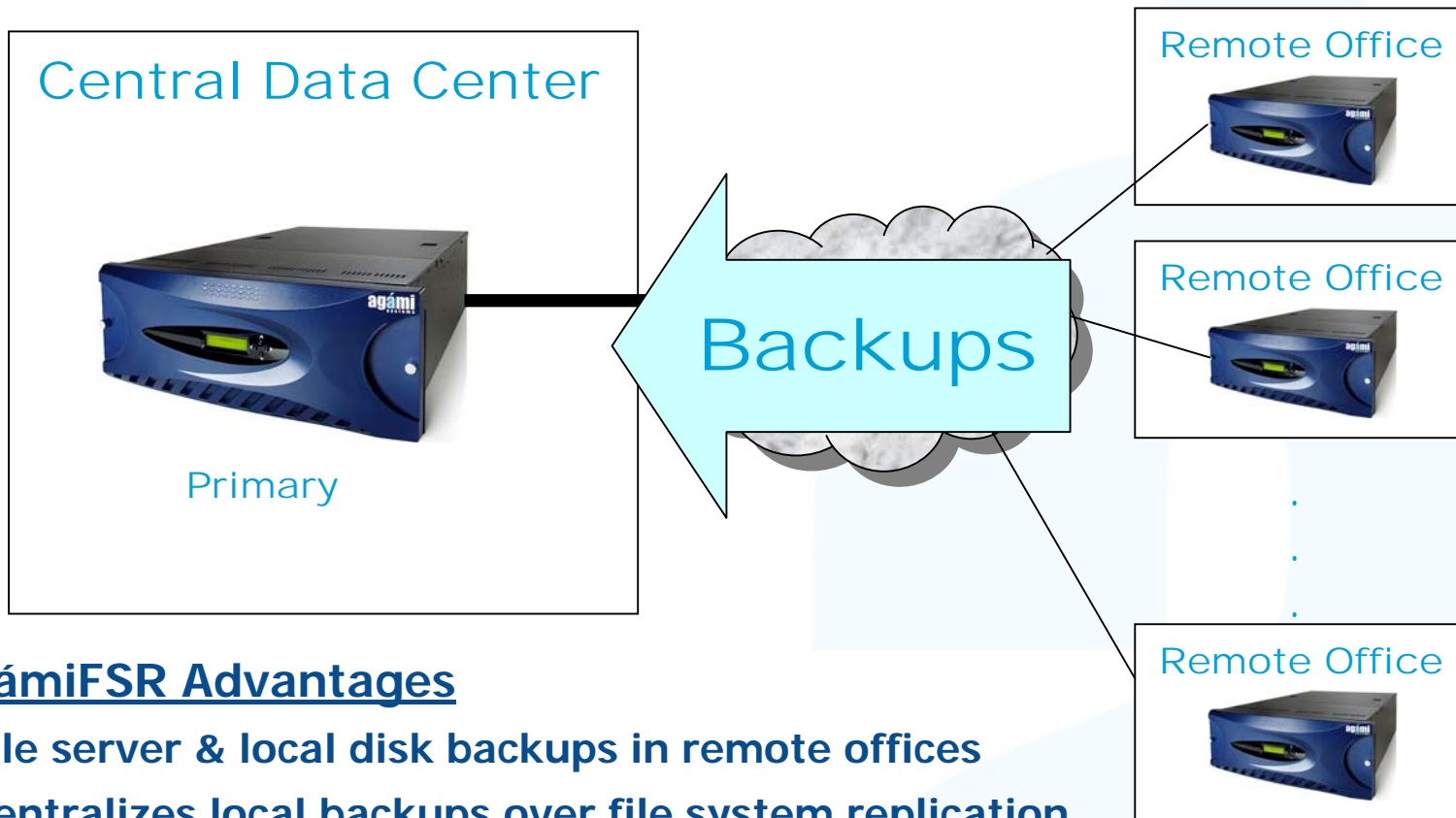
Hot Standby File System



agamiFSR Advantages

- Fully redundant & synchronous file systems replicated over any IP network
- Automated failover to standby (R2)
- Lowest latency & highest throughput for replication
- Protects against failure of primary storage system or multiple disk failures
- Standby can be used for load-balancing (read-only)

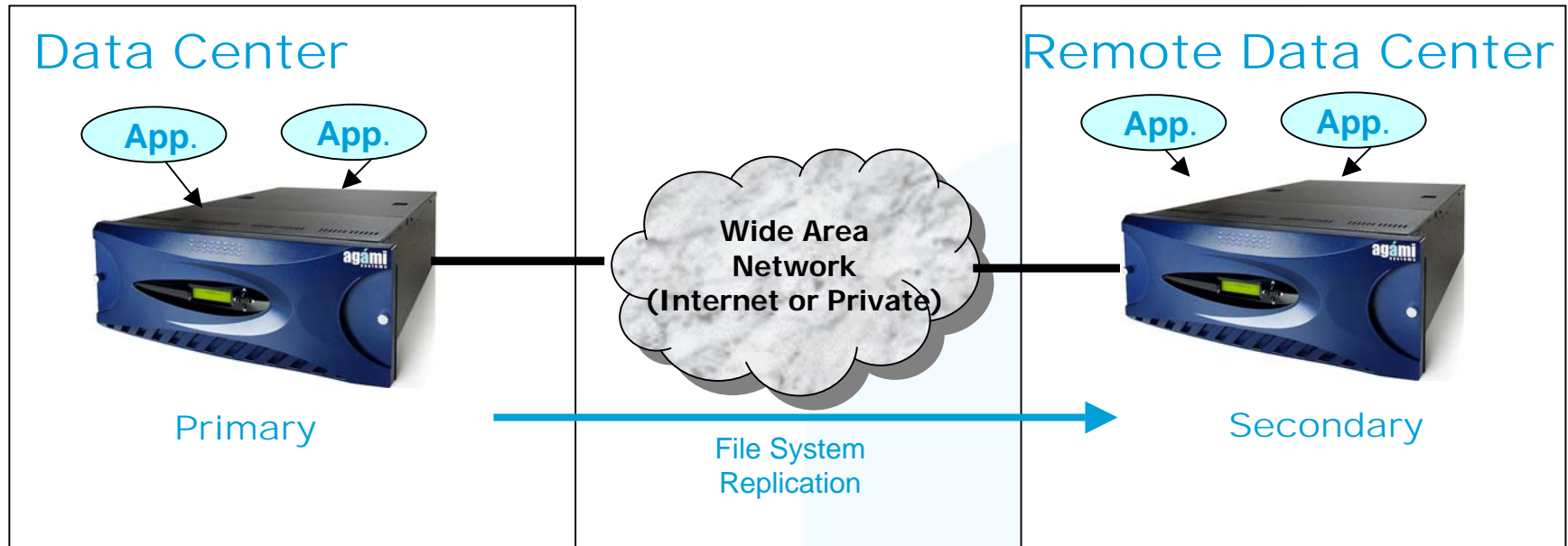
Backup Consolidation



agamiFSR Advantages

- File server & local disk backups in remote offices
- Centralizes local backups over file system replication
- Eliminates local tape devices & management in remote offices
- Can restore a remote file system through replication resync
- Cost-effective endpoint systems for smaller remote sites

Offsite Disaster Protection



agamiFSR Advantages

- Asynchronous replication to tolerate higher latency WANs
- Enables recovery or repair of primary from secondary without local tape restore
- Secondary site can become primary site after site loss or disaster
- Standby can be used for load-balancing (read-only)
- Easy to configure & administer – no need for 3rd party software integration

agami Information Servers

Product Line

Product Specifications	3000 Series			6000 Series	
	Model	AIS-3004	AIS-3006	AIS-3009	AIS-6112
Enclosure	4U	4U	4U	5U	5U
Performance	500MB/sec	500MB/sec	1,000MB/sec	1,000MB/sec	1,000MB/sec
SATA Disks	(24) 160GB	(24) 250GB	(24) 400GB	(48) 250GB	(48) 400GB
System Capacity (Raw)	3.8TB	6TB	9.6TB	12TB	19.2TB
Network Ports	(8) GbE	(8) GbE	(12) GbE	(12) GbE	(12) GbE
Read / Write Cache	6GB / 1GB	6GB / 1GB	12GB / 2GB	12GB / 2GB	12GB / 2GB
AIS MSRP	\$24,995	\$34,995	\$49,995	\$62,995	\$86,995
agamiFSR MSRP	\$8,995	\$9,995	\$10,995	\$11,995	\$14,995

Contact Information

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