

# ***IBM Hursley Systems and Technology Group (STG)***

*Product Briefing for Business Partners*

*April 26, 2012*

## ***Bridgeworks SANSlide Overview***

*The science of connecting data*

## Company Bio

- Founded in 1982
- Privately held
- Headquartered in the UK
- Highly focused on storage protocols
- OEMs:



*Changing The World of Storage*



## Background - Big Data Issues

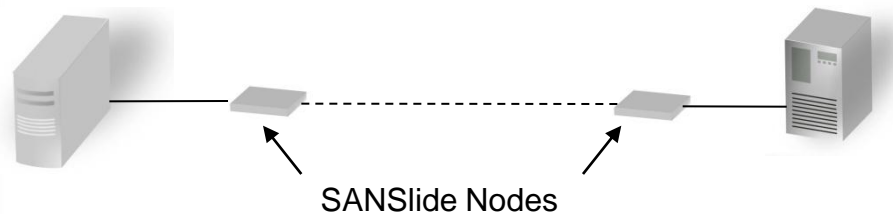
- Large Data Distribution
  - Stored video
  - Medical Imaging
  - Business Analytics
- Heavy Industry and Energy Engineering Projects
- Government , Military and High Security Applications
- Near Real-time Replication
- Long Distance Backup and Restore
- Disaster Recovery
- Audit , Compliance, Archival and retention

## Options for Moving Data Offsite

- Physical Media
  - Expensive
  - Long recovery times
- Electronically
  - Dark Fibre
    - Expensive
    - High performance
    - Limited accessibility
  - IP networks
    - Lower costs
    - Range of performance options
    - Universal availability
    - Poor performance over long distances

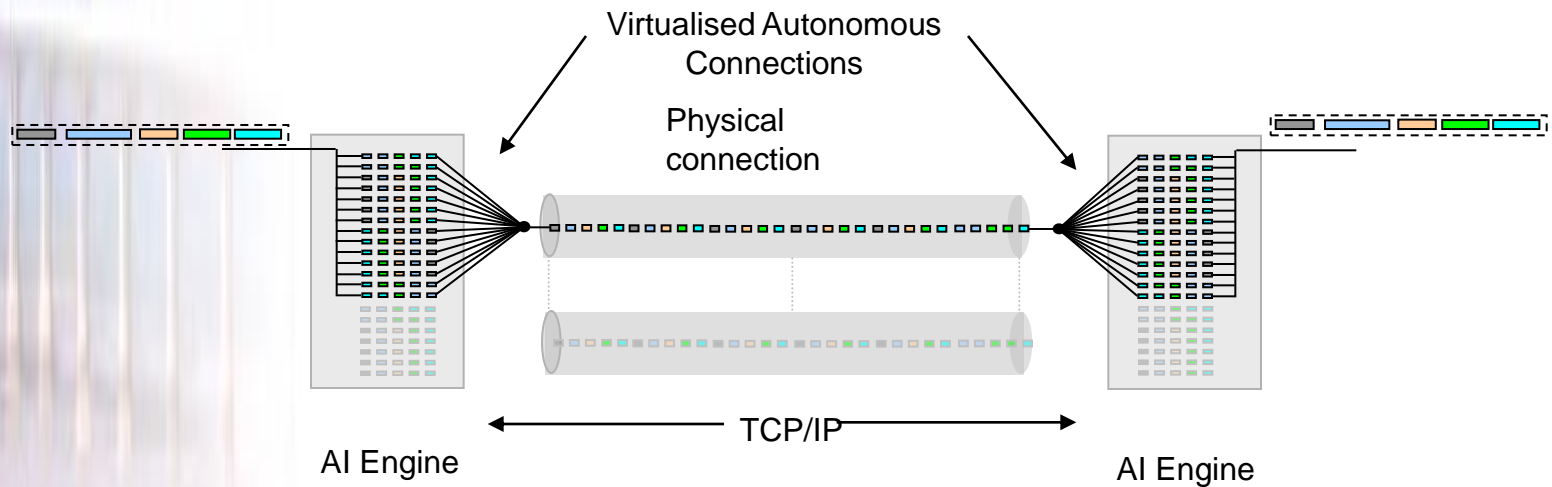
## What is SANSlide

- Storage Protocol Accelerator for IP Networks.
  - Standalone appliance that sits at either end of the IP network that interfaces to the SAN or storage device.
  - Transparent to hosts and storage devices.
  - Converts, Transmits and Accelerates storage protocols over vast distances using a IP network with little or no performance drop off.
  - Self configuring, Self managing.



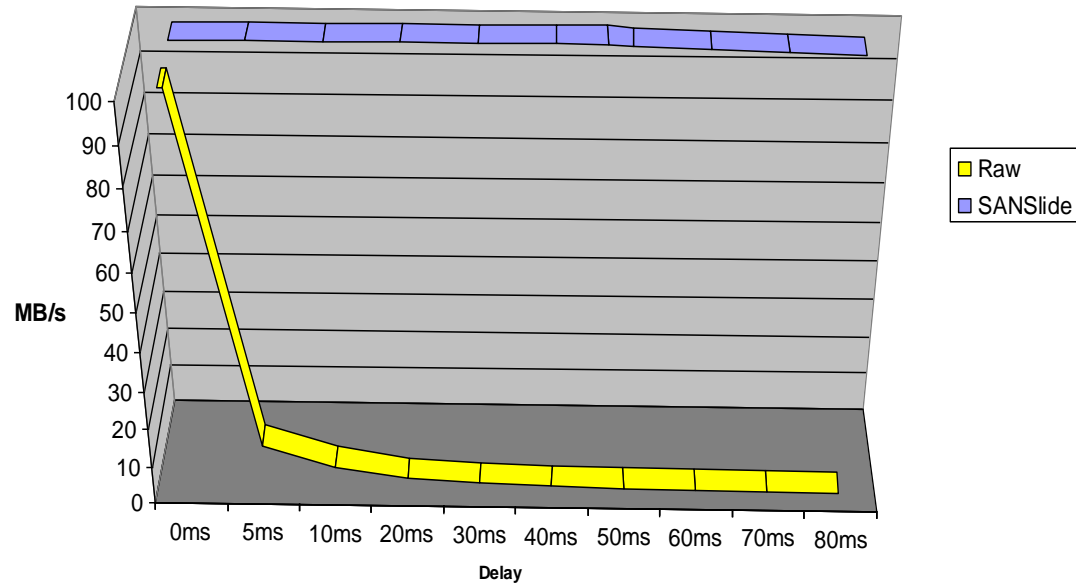
# Solving IP Performance

- 3 Pronged Approach
  - Virtualise the Physical Link
  - Caching the Link
  - Parameter Optimisation



# SANSlide Performance

SANSlide Vs. Raw IP



1Gbe Link



# SANSlide SS1000 Stork Node

Node Control

[Console Home](#)

[Reboot System](#)

[Logout](#)

Support

[Online Help](#)

[Contact Support](#)

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## Stork Node Management Console

### Choose an option

#### Network



Connections



Passwords &  
Security



Service Control

#### SANSlide



Remote Node  
Management



Remote Device  
Management



Transfer  
Statistics

#### Interfaces and Devices



Local Device  
Management

#### Node Maintenance



System  
Information



View Log-file



Load/Save  
Configuration



Firmware  
Updates

#### Demonstration Page



SANSlide  
Demonstration



# SANSlide

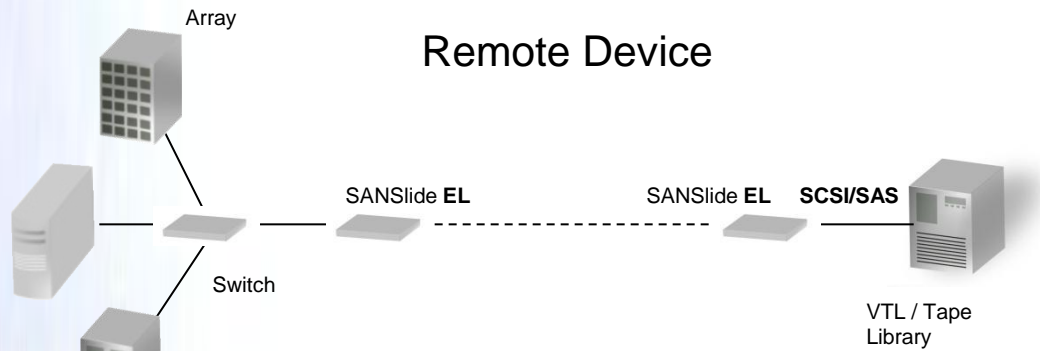
- SANSlide does not:
  - Compress data
  - Use de-duplication
  - Use UDP
  - Modify TCP/IP
  - Use hard drive caching
- SANSlide does:
  - Use patented artificial intelligence
  - Fill the pipe
  - Operate below the OS
  - Use standard TCP/IP
  - Is not impacted by compressed and encrypted files
  - Allows global mesh and end-to-end acceleration

*“Don’t change the data – use all of the pipe”*

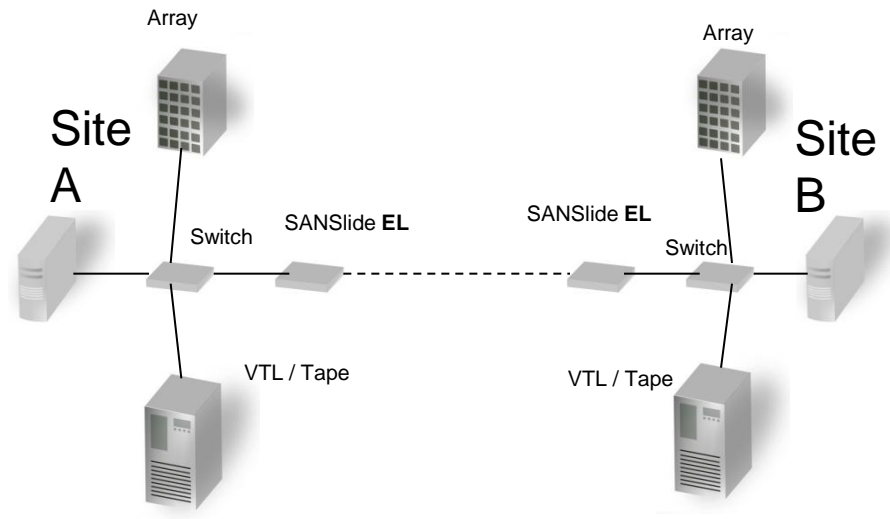
## Product Range

- Entry Level
  - Standard 2 Nodes
  - Fixed Interface – FC, iSCSI, SCSI, SAS
  - Maximum latency 35ms
  - Single Link
- Mid-Range
  - Up to 10 Nodes (further license increases)
  - Supports up to 4 Interface Feature Cards
  - Supports Mixed Interfaces
  - Multiple Links
  - Field Upgradeable
  - Maximum latency 70ms – upgrades to 90ms
- Enterprise
  - Up to 8 Interface Feature Cards
  - 250 Nodes
  - No Latency limit

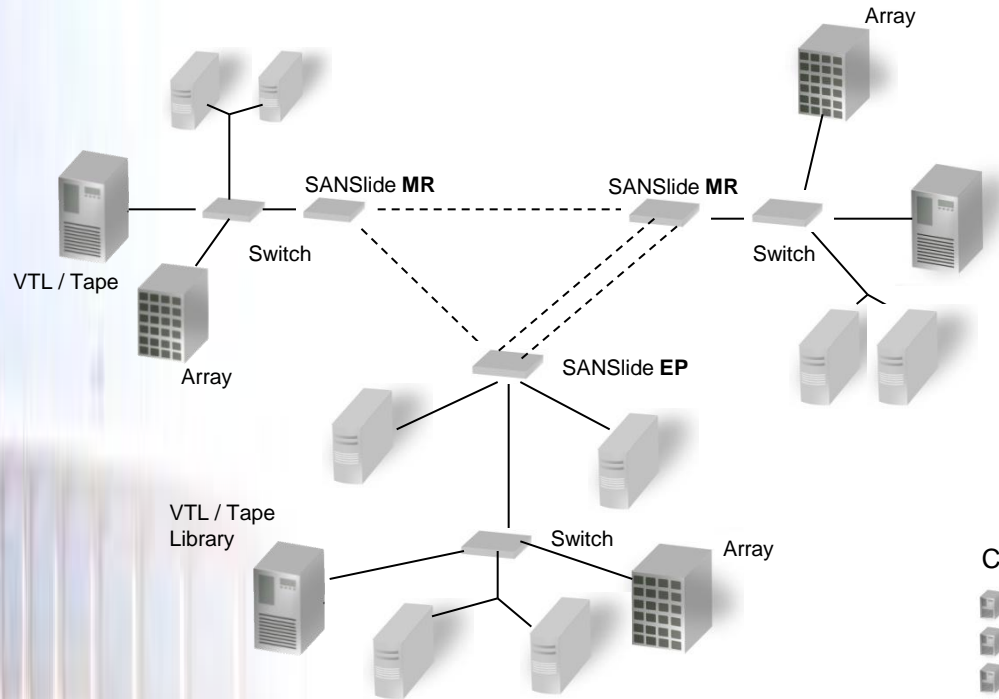
# Deploying SANSlide



Remote replication  
Cross site Backup



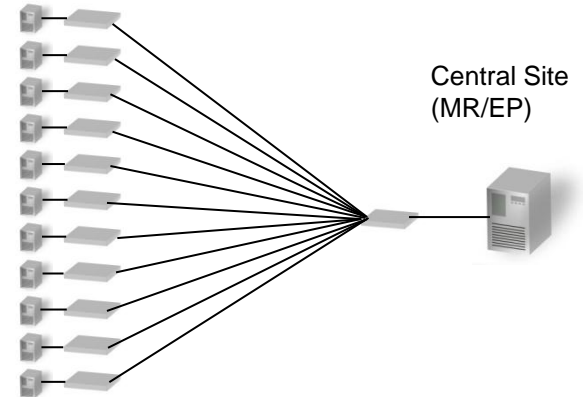
# Deploying SANSlide



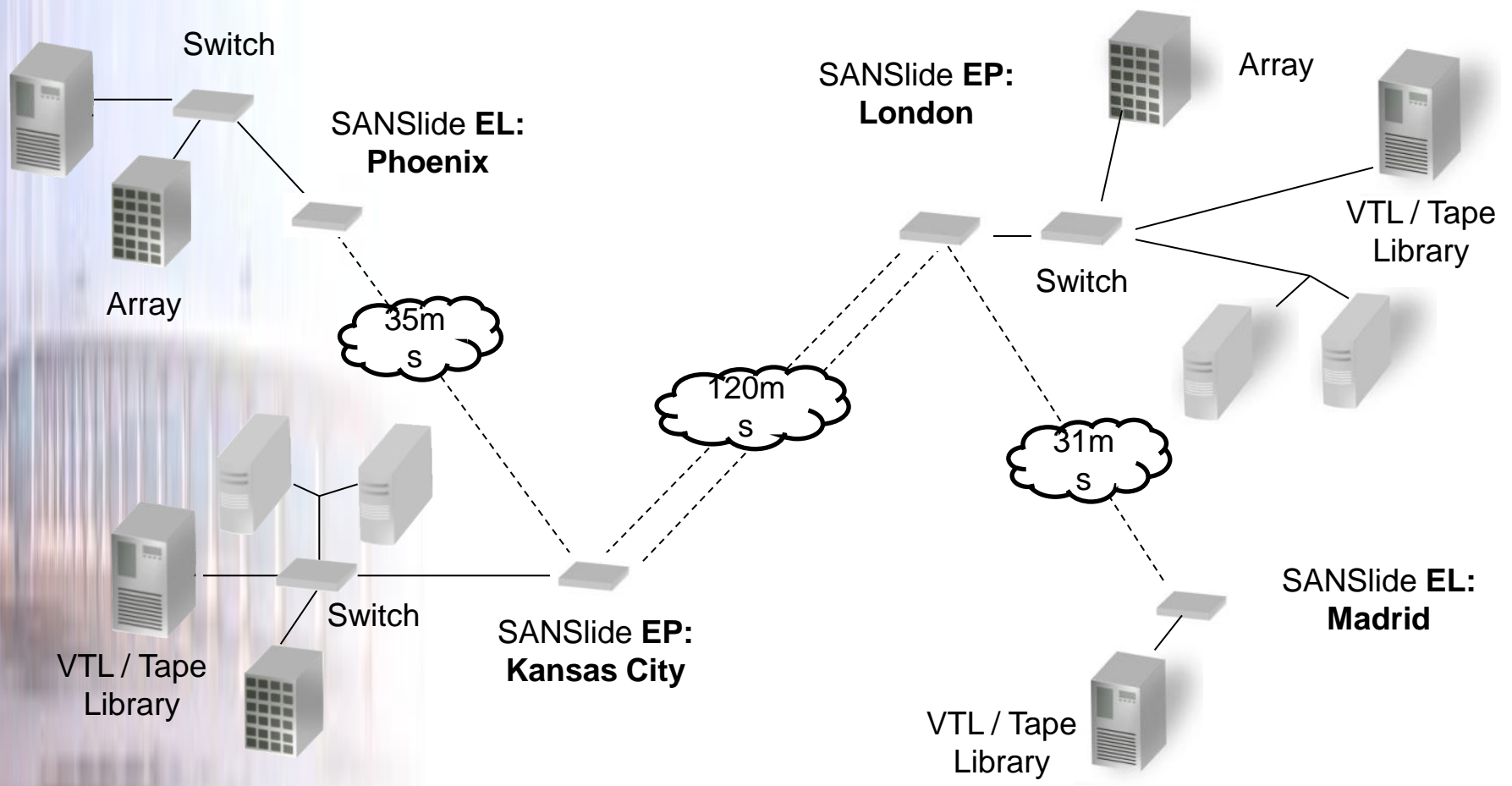
Multiple sites or  
Private Cloud

Disaster Recovery  
Provider / Private Cloud

Customer Site / Satellite Office (EL)



# SANSlide Mesh



# SANSlide

simply, effectively, efficiently

- Vast distances without performance loss.
- Instant start recovery – no tapes to wait for.
- Dark Fibre speeds at a fraction of the cost.
- Ability to locate DR site in low cost location.
- High link utilisation can reduce the speed and or the number links required - more with less.
- Self – Managing reduces OPEX
- Different product models dramatically reduce cost of entry yet provide an upgrade path.
- Support for all current and future protocols.
- Comfortable technology – no new skills to learn.

## Customer Case CVS / Caremark

- Large USA pharmacy
- 200,000 employees
- 7152 retail stores

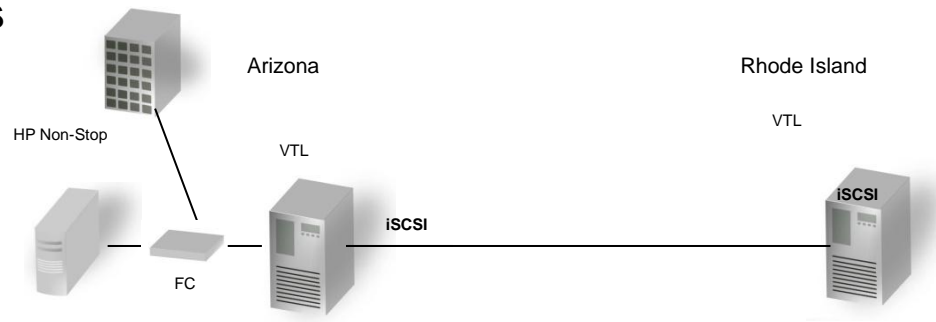
## Customer Environment

- HP non-stop development
- Supports approx 30 developers
- Daily backup ~430GB
- Weekly backup >500GB
- Tapes sent offsite daily to Iron Mountain
- Issues
  - Ongoing cost.
  - Exposure to Natural Disasters and recovery times
    - minimum of 8 hours plus time to restore data.



## Initial Solution

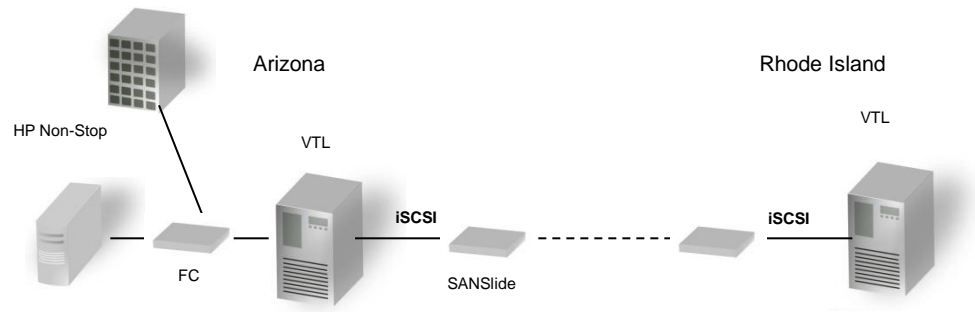
- VTL to VTL via iSCSI
- Arizona to Rhode Island
- OC12 link
- **86ms latency**
- **1% packet loss**



- Performance of solution **1.5MB/s**
- **50GB in 12 hours** - backup and recovery
- Best that could be achieved - daily incrementals

## SANSlide Enhanced Solution

- SANSlide Installation time <5min
- **55MB/s** backup and recovery speeds
- Original 50GB backup reduced by **11hrs 15m**



- Daily backup < **4 hours** (430GB)
  - ability to re-run job in case of failure
- Weekly backup < 4.5 hours. (>500GB)
- Complete recovery < **5hours**

## Customer Case Summary

- Standalone solution – connected directly to storage devices without extra network
- Installation time < 5 mins
- Original 50GB backup reduced by **11hrs 15m**
- **55MB/s** Backup performance
- **55MB/s** Restore performance
- Reduced costs
- Improved DR RTO and RPO
- Ability to re-run jobs if required
- Time to add further jobs

“The implementation was so successful that we put it into production almost immediately. Depending upon network conditions, performance was improved a minimum of 10 times and up to 50 times. We achieved almost immediate ROI. SANSlide has proven to be rock solid and problem-free.”

Don Lutes CVS