AN EXCLUSIVE SOURCE FOR ENTERPRISE LEVEL WITH HIGH PERFORMANCE VIRTUAL TAPE SOLUTION

At the crucial point of mainframe data centers requirements for improvement of tape operations, not limited to batch processing, HSM, disaster recovery and archiving, ATSM offers a single process for Virtual Tape and Tape Migration needs. zAppliance™ System, featuring customized to your corporation needs Virtual Tape Solution. ATSM offers three different levels of zAppliance™ System Virtual Tape Solution to accommodate your requirement for daily operations.

zASVT™ great for the enterprise with need for flexibility and speed.
zASVT-M™ for the client who is ready to expand to a mid range box and expand robustness of their operations.
zASVT-1024™ our state of the art unlimited capability solution.

No matter what your choice is, all of zAppliance™ System server machines are scalable to your corporate needs and include dedicated support through the whole process. zAppliance™ System offering with highly available, high performance storage options that scale to petabytes of virtual tape capacity.

No physical tape is required.

In today's data-driven business environment, customers face increased challenges in protecting their vital data from loss, theft, corruption, and disaster. zAppliance™ System can offer you the freedoms of security and reliability at the critical moment.

zAppliance™ System Offers:

- Reducing in batch processing times and improve HSM
- Archive tapes to the Cloud
- Simplify Disaster Recovery (DR) process, exercises and improves DR preparedness with remote access to your data

zAppliance™ Features

- Complete mainframe virtual tape solution in a compact form factor
- Replication option with remote monitoring at the VOLSER level
- Push Button DR option
- Encryption and key management options
- Data Compression (LZ4 or zSTD)
- Virtual tape cartridge sizes are configurable
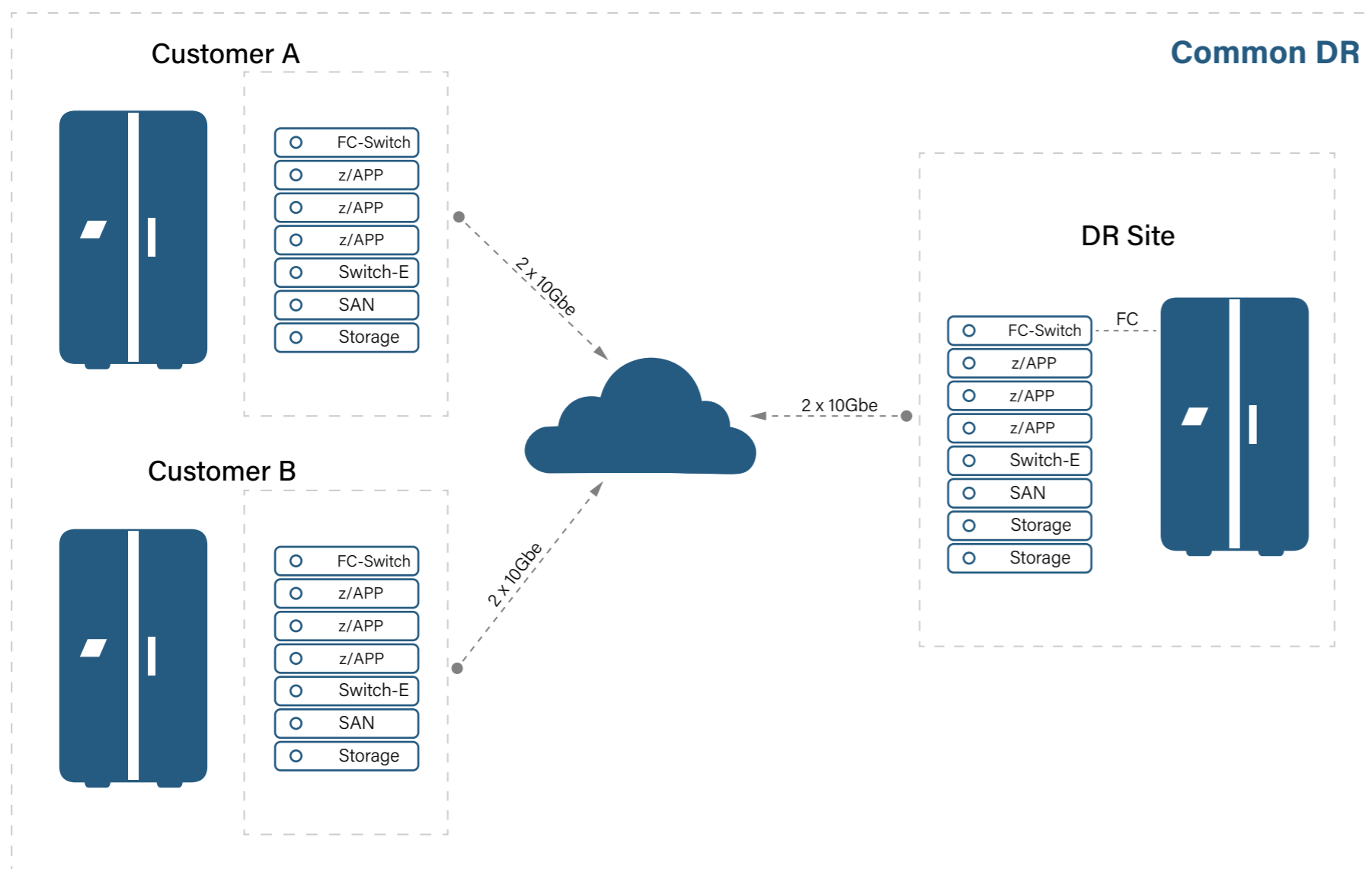- Supports up to 256K block sizes
- Tape to Cloud ready

How Does zAppliance™ System Work?

zAppliance™ System includes three scalable types of solution offerings zASVT™, zASVT-M™ and zASVT-1024™ all of which are virtual tape control units, capable of emulating 3490 or 3590 devices and are plug-compatible with IBM mainframe FICON channels. Every solution in zAppliance™ System has unique and elegant, modular design enabling exceptional scalability. It can be configured with the highest performance storage systems available in the industry, including modular, enterprise or virtualized storage with RAID 6 data protection for greater resiliency.

zAppliance™ System supports up to 8Gb FICON connectivity to the mainframe to achieve the industry's best FICON performance and throughput. Each solution in zAppliance™ System is mainframe application transparent, so customers can continue to use existing applications without modification. For added data protection and security, zAppliance™ System offers encryption and key management, and remote replication of tape data to secure, internal or third party disaster recovery sites. Both asynchronous and synchronous remote replication solutions are available.

So, the slower, expensive and cumbersome processes associated with packing, shipping and recovering physical tapes can be eliminated by using continuous replication of virtual tapes to a DR site for testing or recovery when needed.
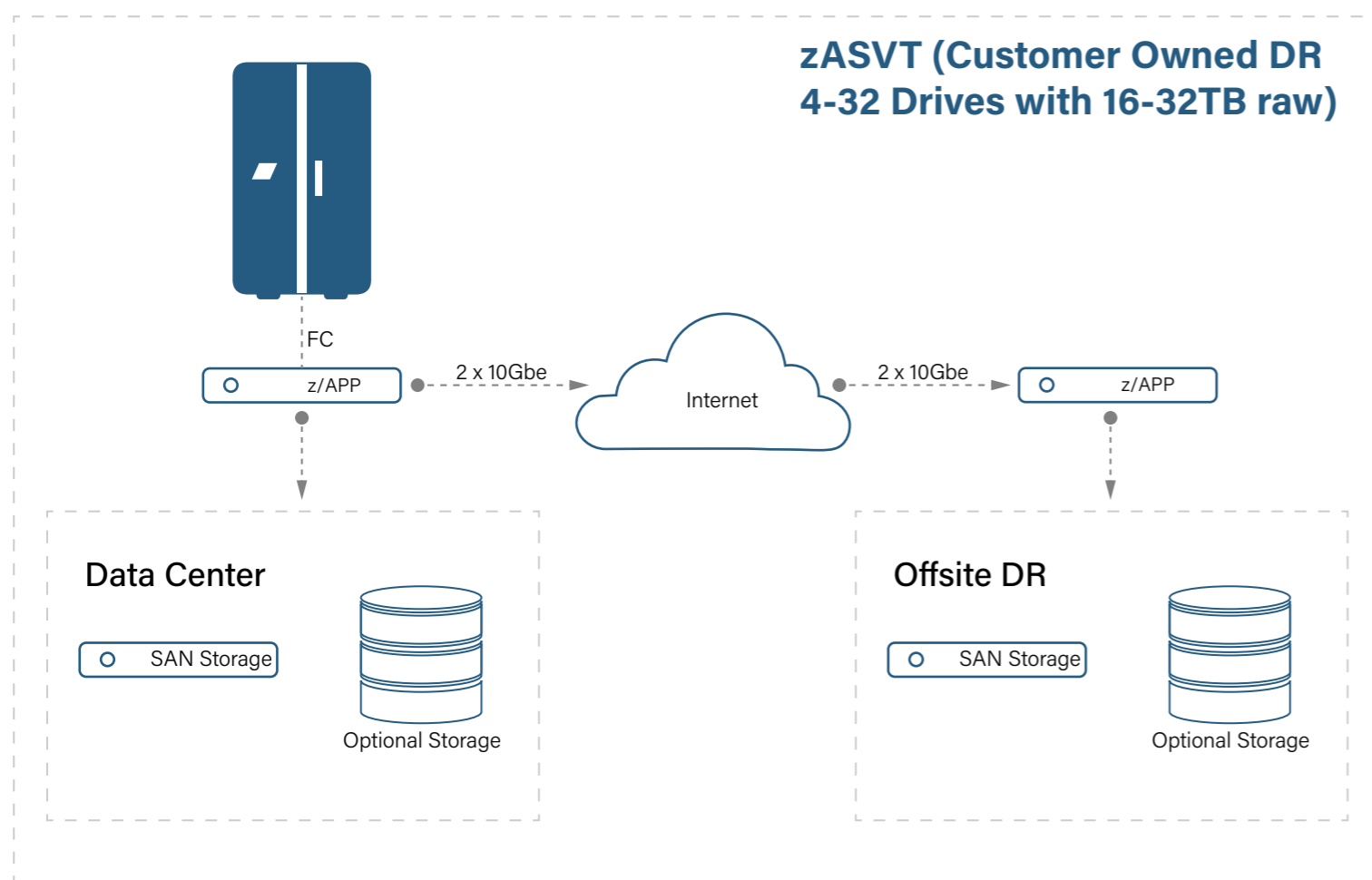
zAppliance™ System is accompanied by detailed pre-sales consulting, implementation services and post-sales support options. A single point of contact for all services, access to our exceptional technical resources at your fingertips.

Common DR

Customer A

| FC-Switch |
| z/APP |
| z/APP |
| z/APP |
| Switch-E |
| SAN |
| Storage |

2 x 10Gbe

DR Site

| FC-Switch |
| z/APP |
| z/APP |
| z/APP |
| Switch-E |
| SAN |
| Storage |
| Storage |

FC

2 x 10Gbe

Customer B

| FC-Switch |
| z/APP |
| z/APP |
| z/APP |
| Switch-E |
| SAN |
| Storage |

2 x 10Gbe

Tape Migration Services Provides Simple and Straightforward Transition

We understand that for majority of data centers, the switch from the old physical tape environment to the new virtual tape solution will require tape migration software and services. ATSM makes it a worry-free prices by providing our own tape migration tools and services to you.

Our tape migration tools and services make possible for a near-seamless, fully secure migration with virtually no impact to enterprise operations. In fact, with our software, the original tape volume serial numbers and historical information are retained after cut-over to the new virtual tape environment to ensure a smooth transition to the new solution.

zASVT (Customer Owned DR 4-32 Drives with 16-32TB raw)

FC

| z/APP |

2 x 10Gbe

Internet

2 x 10Gbe

| z/APP |

Data Center

| SAN Storage |

Optional Storage

Offsite DR

| SAN Storage |

Optional Storage

- Encrypted and compressed data at rest and in motion
- DR replication and monitoring up to 3 DR sites
- Volume sharing between nodes
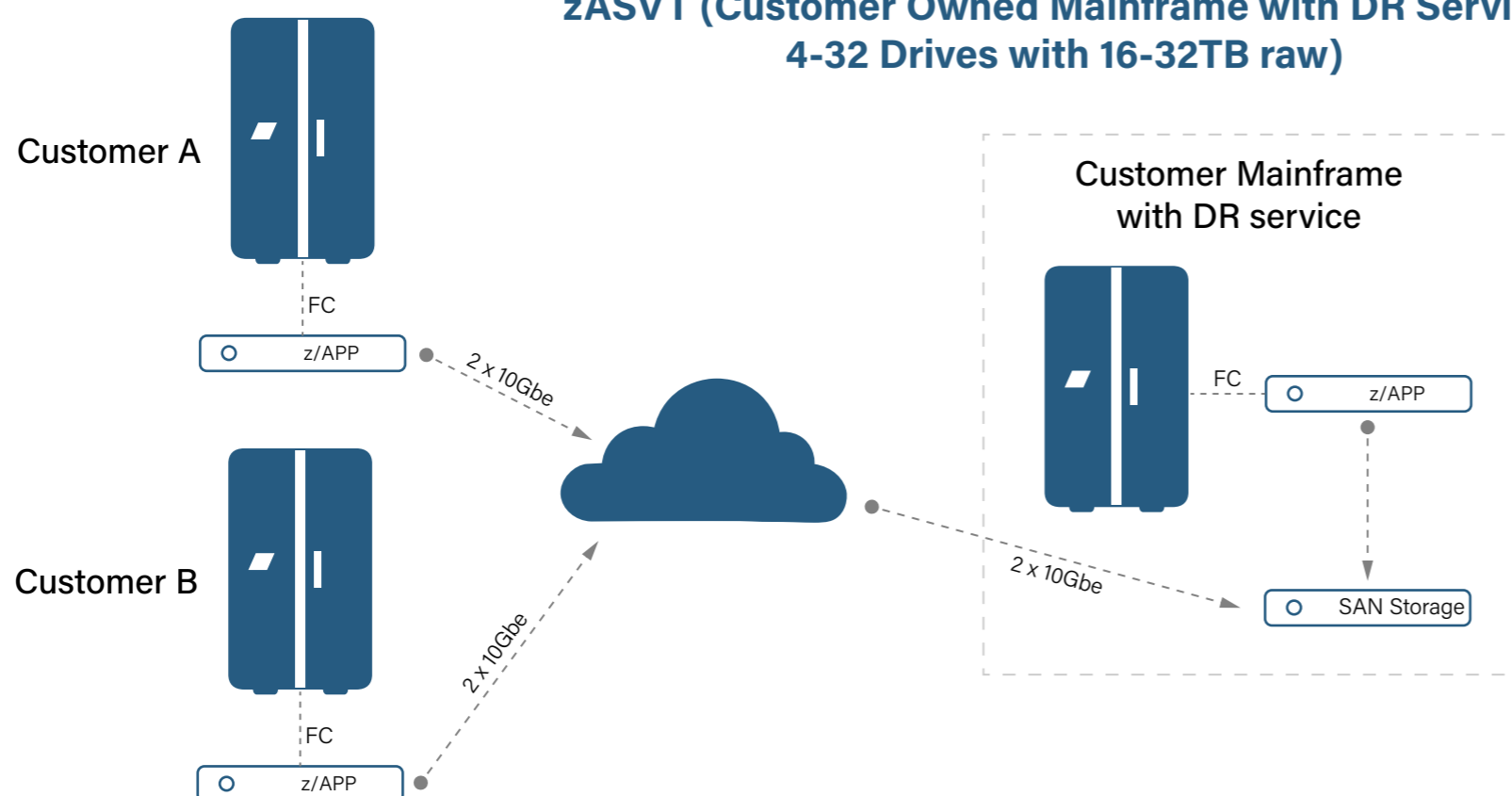- Local storage only

zAppliance™ Benefits

- Improves performance for all tape operations
- Significantly improves Recovery Point Objectives (RPOs) and Recovery Time Objectives (RTOs)
- Eliminates cost of storing, handling, transporting & managing tapes
- Eliminates recurring maintenance costs of tape libraries & drives
- Significant reduction in data-center requirements for:
  - Floor space
  - Electrical usage
  - HVAC requirements
- Secure, Reliable and Immediate Disaster Recovery
- Tape volumes are available both locally & at DR site
- Recovery at DR site is immediate – no waiting for physical tape retrieval
- Reduce total cost of ownership (TCO)
- Retain more data Online with data compression
- Use virtual tape backups to start up IPL
- Replicate data across sites to eliminate tape shipment
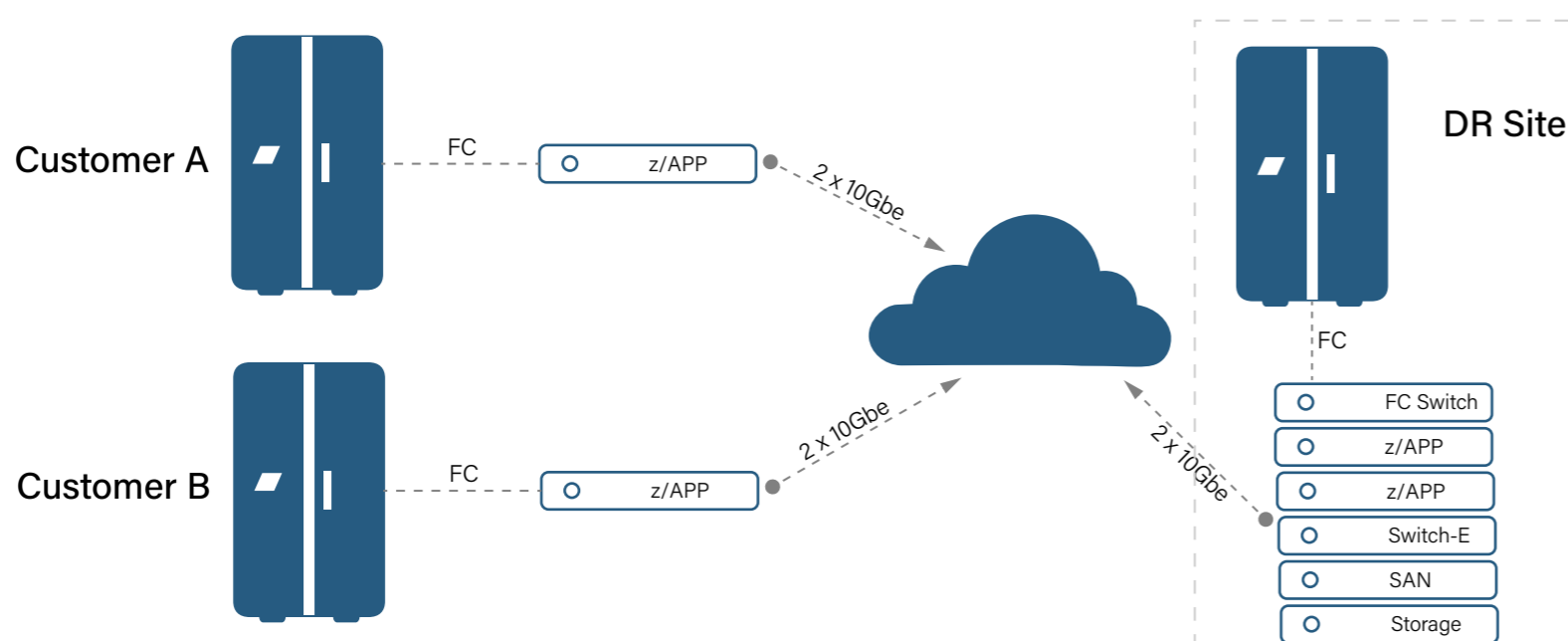- AES-256 encrypt data onto tape

zASVT™

- 4-32 drives
- 16 - 32TB raw 144TB with 6:1 SW compression
- AES-256 encryption standard
- LZ4/zSTD compression
- GUI, CLI, JCL management
- Proprietary file format with import and export utilities including AWS
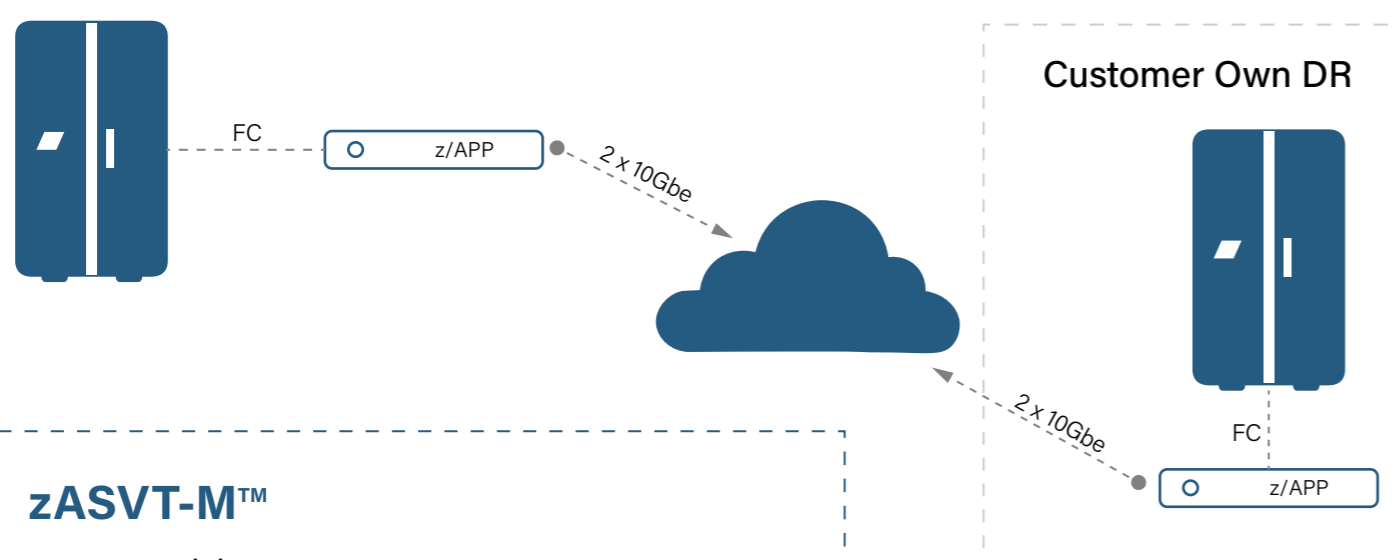- 3490/349E/3590 drive formats

zASVT (Customer Owned Mainframe with DR Service 4-32 Drives with 16-32TB raw)

Customer A

Customer B

FC
z/APP

2 x 10Gbe

FC
z/APP

2 x 10Gbe

Customer Mainframe with DR service

FC
z/APP

2 x 10Gbe

SAN Storage

zASVT-M (DR Service 16-64 Drives with 96TB raw)

Customer A

FC
z/APP

2 x 10Gbe

Customer B

FC
z/APP

2 x 10Gbe

DR Site

FC

FC Switch
z/APP
z/APP
Switch-E
SAN
Storage

2 x 10Gbe

zASVT-M (Customer Owned DR Service 16-64 Drives with 96TB raw)

FC
z/APP

2 x 10Gbe

Customer Own DR

2 x 10Gbe

FC
z/APP

zASVT-M™

- 16-64 drives
- 32 - 96TB Raw 576TB with 6:1 SW compression
- 1-4 clustered shared storage
- Local storage with user owned SAN optional
- AES-256 encryption standard
- LZ4/zSTD compression
- Proprietary file format with import and export utilities including AWS

- GUI, CLI, JCL management
- 3490/349E/3590 drive formats
- Encrypted and compressed data at rest and in motion
- Volume sharing between nodes
- DR replication and monitoring

zAppliance™ Security and Integrity

- AES-256 encrypted file format
- Enhanced data integrity file format 128-bit CRCs
- LZ4/zSTD compressed file formats
- WORM support

Migration

- Hostless Migration from selected vendors
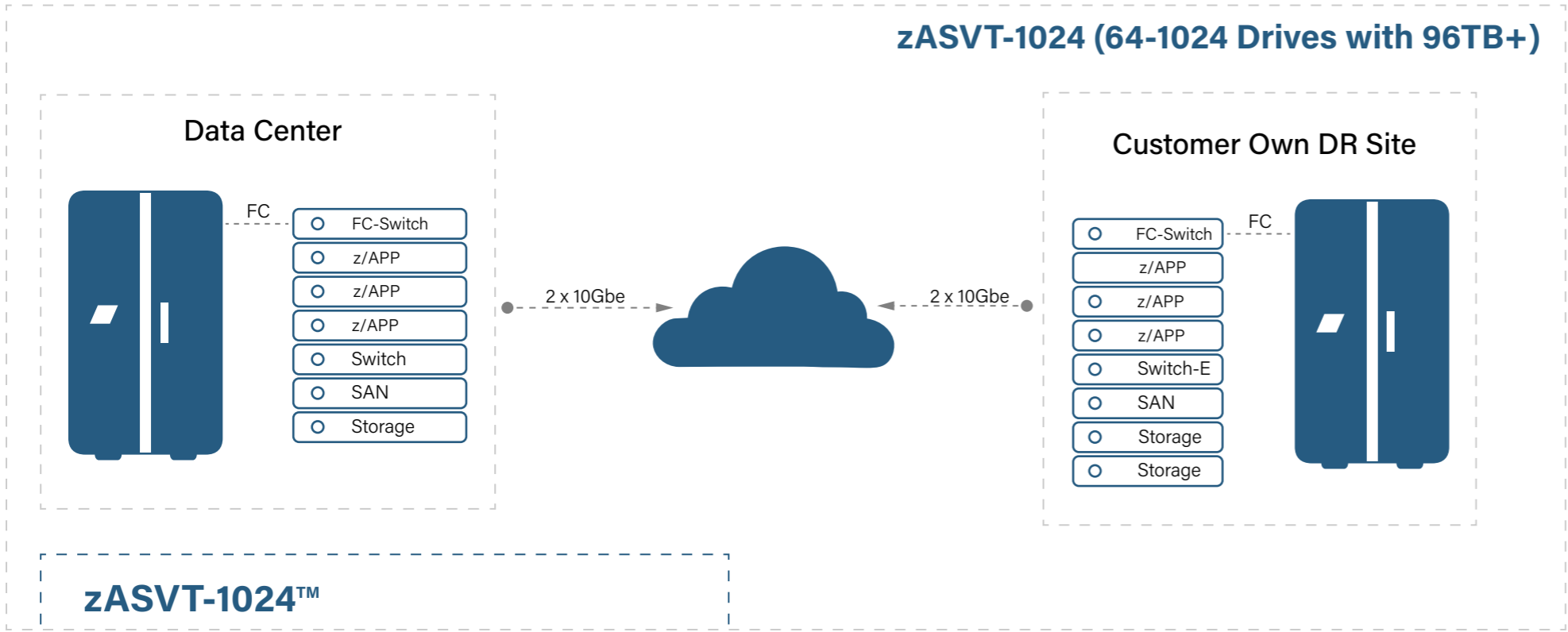- z/OS bundled software for other vendors with little or no MSUs

Replication. Monitoring. Cloud Support

- Cloud support - replication or direct read or write
- Automated DR support, replication and reporting
- Advanced shared tape pool management

Operations

- Advanced scratch management with version backups and user selected expunge date
- Support For AWS and other proprietary file formats for import and export
- Support for LTO tape import and export
- Enhanced management reporting
- Integrated/automated DR
- Multi mainframe, multi tenant support
- Integrated REXX scripting post processing and host initiated
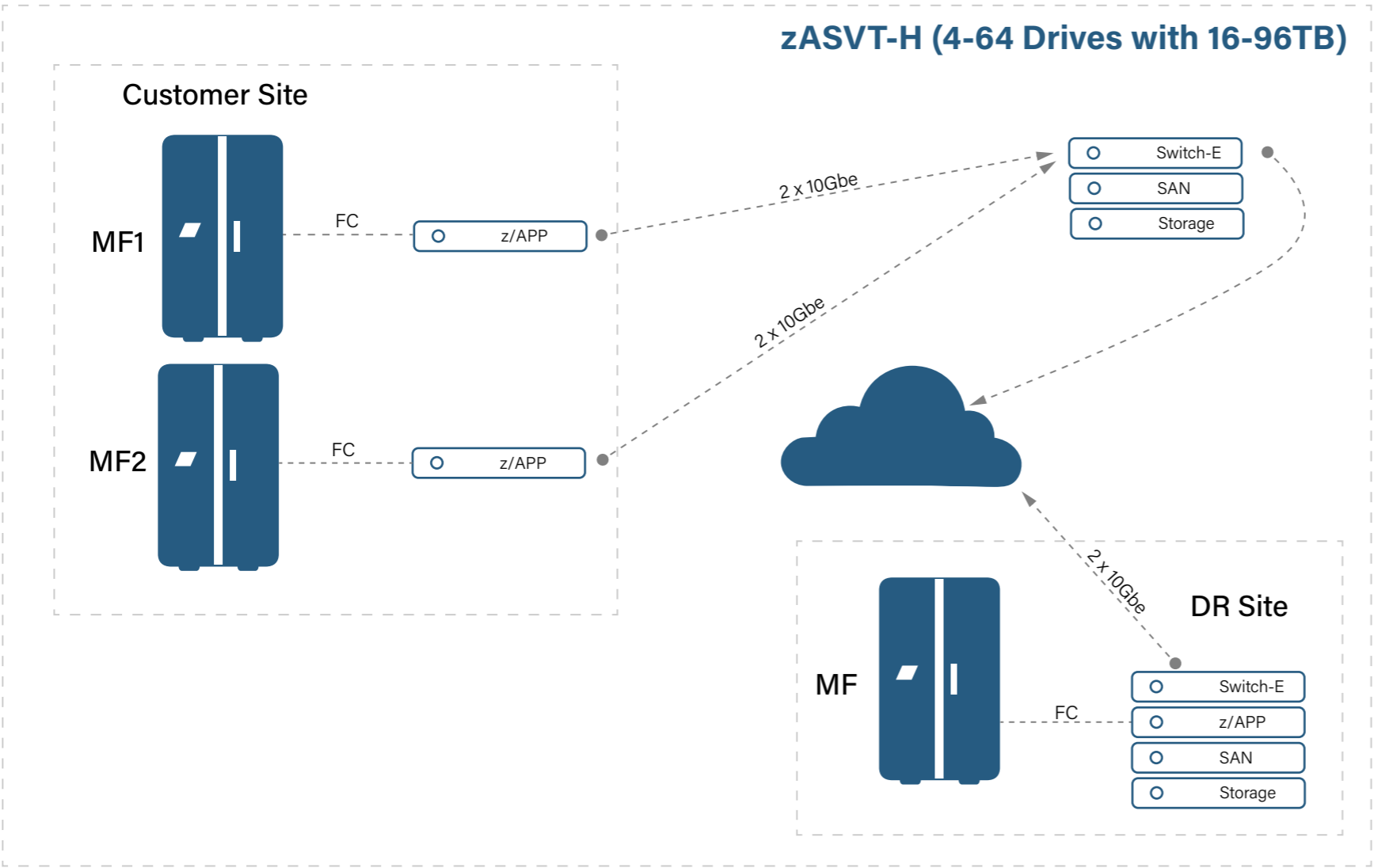- Simulated tape VOLSER cartridge loader

zASVT-1024 (64-1024 Drives with 96TB+)

Data Center

- FC
- FC-Switch
- z/APP
- z/APP
- z/APP
- Switch
- SAN
- Storage

2 x 10Gbe

2 x 10Gbe

Customer Own DR Site

- FC-Switch
- z/APP
- z/APP
- z/APP
- Switch-E
- SAN
- Storage
- Storage
- FC

zASVT-1024™

- 64-1024 Drives
- 96TB Raw 576TB with 6:1 SW compression
- 4-32 clustered shared storage
- Local storage with user owned SAN optional
- AES-256 encryption standard
- LZ4/zSTD compression
- Proprietary file format with import and export utilities including AWS

- GUI, CLI, JCL management
- 3490/349E/3590 drive formats
- Encrypted and compressed data at rest and in motion
- Volume sharing between nodes
- DR replication and monitoring up to 3 DR sites

zASVT-H (4-64 Drives with 16-96TB)

Customer Site

MF1
- FC
- z/APP

MF2
- FC
- z/APP

2 x 10Gbe

2 x 10Gbe

- Switch-E
- SAN
- Storage

DR Site

MF
- Switch-E
- z/APP
- SAN
- Storage
- FC

2 x 10Gbe