ECHOLEAF

— NETEZZA ARCHIVE SOLUTION —

ARCHIVE STORAGE. REINVENTED

echoleaf™

Overview

1) Netezza Archive – Why You Need It.

2) The Netezza / EchoLeaf Archive Solution.

3) Solution Benefits.

4) Where The Solution Fits in the IBM LTFS Product Line.

5) Contact Information

Netezza Archive: Why You Need It

Netezza analyzes Big Data. So what is needed to backup and archive Big Data? A bigger archive.

Archiving Netezza data sets requires high capacity storage architectures that are also highly reliable and secure.

EchoLeaf and IBM combine to offer the easiest to use and most cost effective storage for Big Data. A simple front end that looks like disk to Netezza, and a secure, LTFS, economical IBM-tape back end. Finally, a bigger archive for Big Data.

TS4500 Tape Library   TS4300 Tape Library

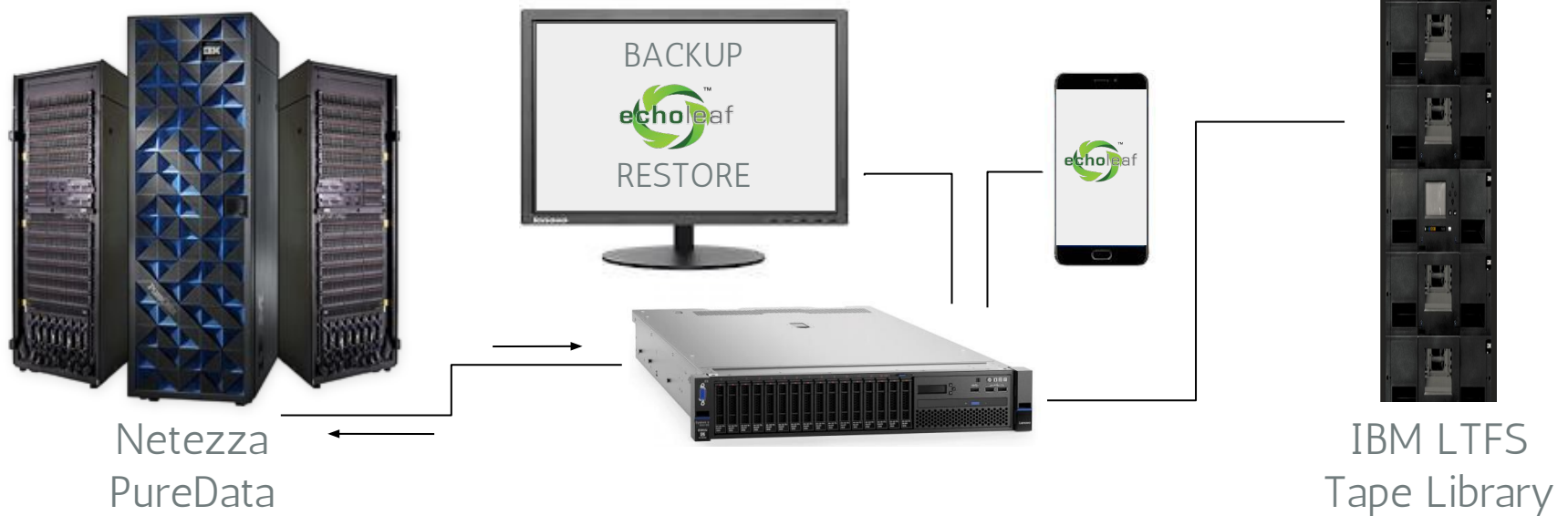# Free Up Space on Netezza Appliances

- Free up Space on your Netezza Appliance by archiving large databases to the EchoLeaf / IBM Tape Archive.

- Each archive database is easily accessible.

- Installs in less than a day, runs for years and years

- The lifetime of an LTO / LTFS Tape is rated for +10 years in an archive environment.

- More cost effective than disk or cloud backup solutions for your large datasets.
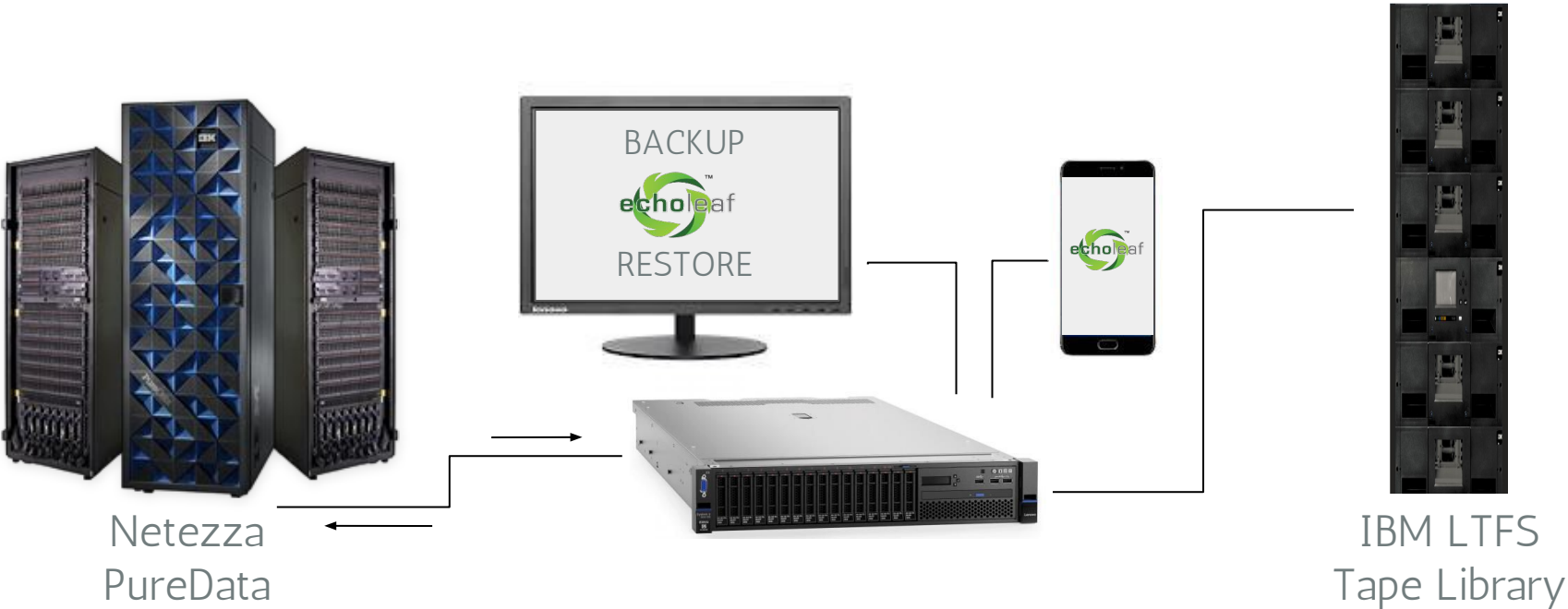
What is the EchoLeaf Netezza Solution? echoleaf

The EchoLeaf Netezza Solution allows the EchoLeaf Virtual Drive to act as an NFS target for large Netezza / PureData datasets. Using native Netezza utilities, Netezza backs up datasets with **NZBACKUP** and can restore them with **NZRESTORE**. Netezza sees a file system mount. EchoLeaf handles all of the tape details.

BACKUP

echoleaf

RESTORE

echoleaf

Netezza
PureData

IBM LTFS
Tape Library

EchoLeaf Netezza Archive Hardware Architecture

BACKUP

RESTORE

Netezza
PureData

IBM LTFS
Tape Library

Netezza Backup Solution Benefits
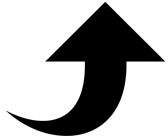
echoleaf™

Easy to implement
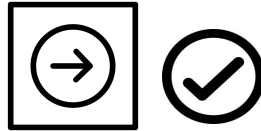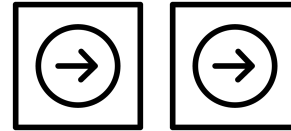
Low-cost infrastructure

Native Linux

Industry Standard LTFS

Simple upgrade options

Possible tape-only recovery

File redundancy features
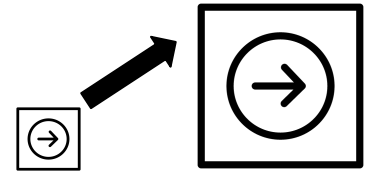
No backup software needed
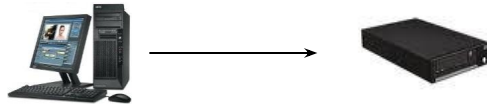
IBM infrastructure

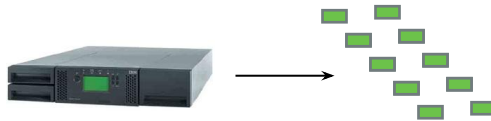Supported encryption

Media lasts 10+ years

Supports LTO7-LTO12

How Echoleaf Fits: The IBM Product Line
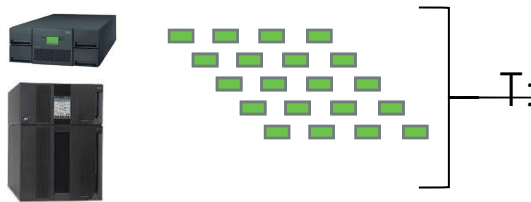
echoleaf™
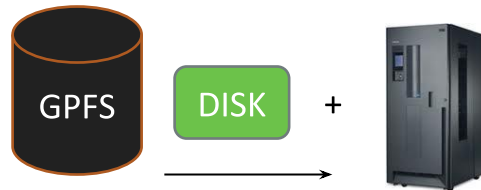
LTFS Single Drive – Free To Download

LTFS LE (Library Edition)
     All tapes become
     folders

EchoLeaf Virtualizes ALL Spectrum-LE Folders as a Single Drive

T:

LTFS EE (Enterprise Edition) Now Spectrum Scale Adds a Tape Tier to GPFS

Spectrum Archive, supporting LTFS, is sold in three flavors. At the low end, a free version will work with a single drive. At the Enterprise end, Spectrum Scale acts as a tape tier for GPFS. EchoLeaf enhances the Spectrum Scale Library Edition (LE) by *virtualizing all tapes in all folders,* so that users (or the host application) "see" only one large, contiguous network drive. Any application that writes to a network drive can write to EchoLeaf.

For Price Quote & Product Details

Contact:

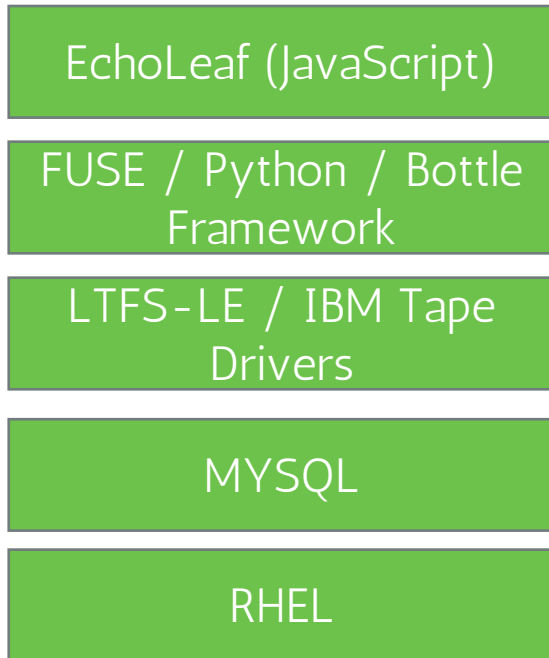Fred Bonner

Chief Technical Officer

fbonner@echoleafsystems.com
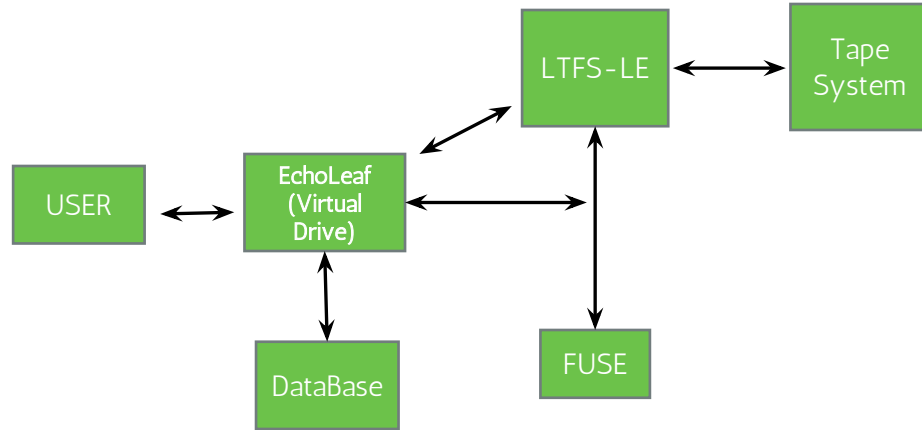
www.echoleafsystems.com

Additional Technical Details

EchoLeaf Software Stack
Running on the EchoLeaf Appliance

EchoLeaf (JavaScript)
FUSE / Python / Bottle Framework
LTFS-LE / IBM Tape Drivers
MYSQL
RHEL

EchoLeaf Software

- User accesses EchoLeaf Virtual Drive.
- EchoLeaf maintains database of what files are on what tapes
- EchoLeaf accesses all LTFS-LE Functions
- EchoLeaf intercepts FUSE calls (File System In User Space – Part of LTFS-LE)
- LTFS-LE Interacts with Tape System