



GridBank Technology Overview

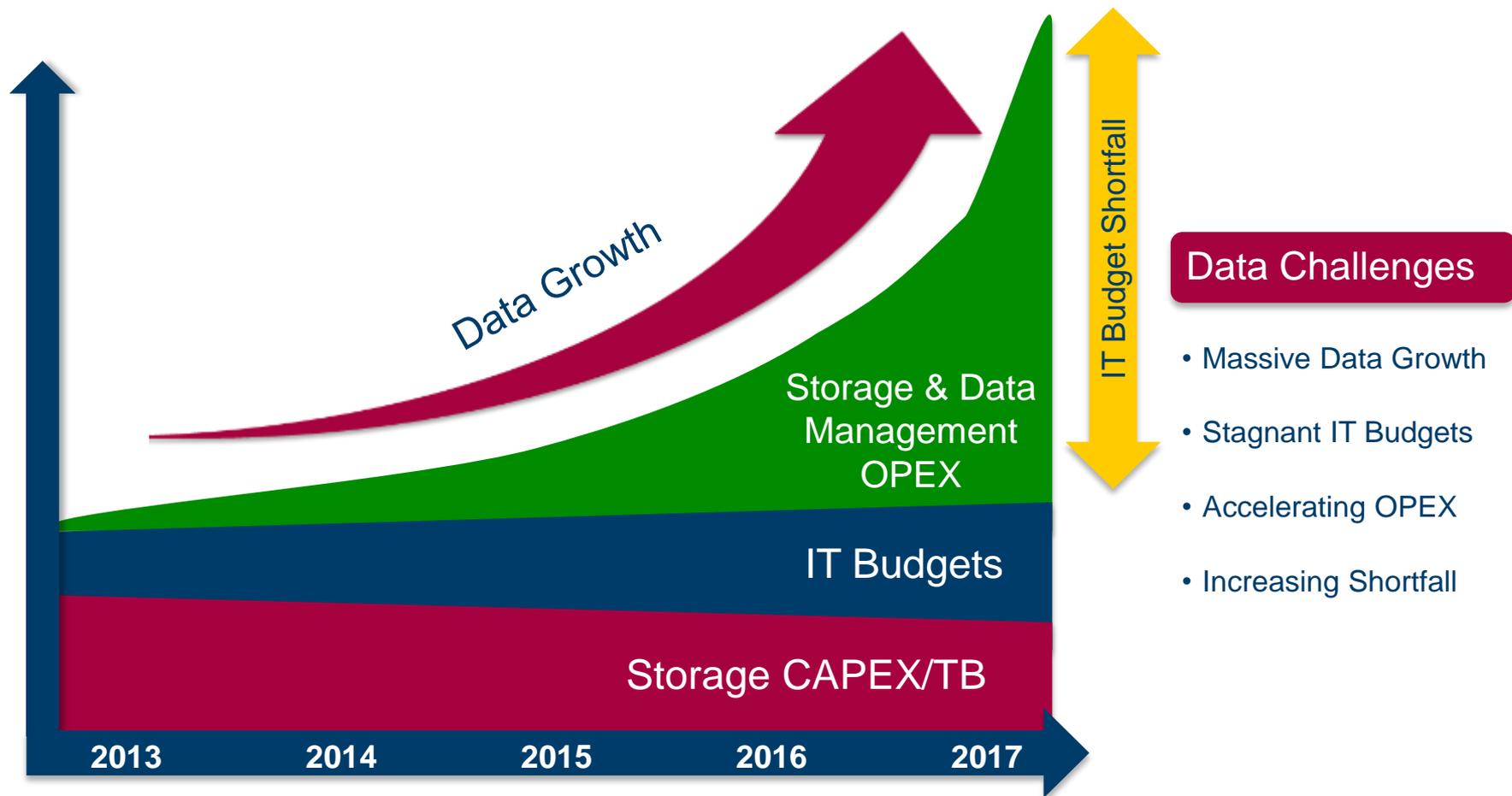
Where Data Defines Value.™

About Tarmin

- Founded in 2007
- Corporate Headquarters: Boston, London
- Pioneer of Data Defined Storage
- Solution: GridBank Data Management Platform



Unstructured Data Challenges



Unstructured Data Challenges

Data Growth

- Exponential unstructured data growth driving increased cost

Data Silos

- Limited access to data between business units, locations & proprietary hardware silos

Data Management

- Increasing complexity in unstructured data estate drives growing management overheads

Data Risk

- Increasingly stringent regulatory & legal compliance mandates

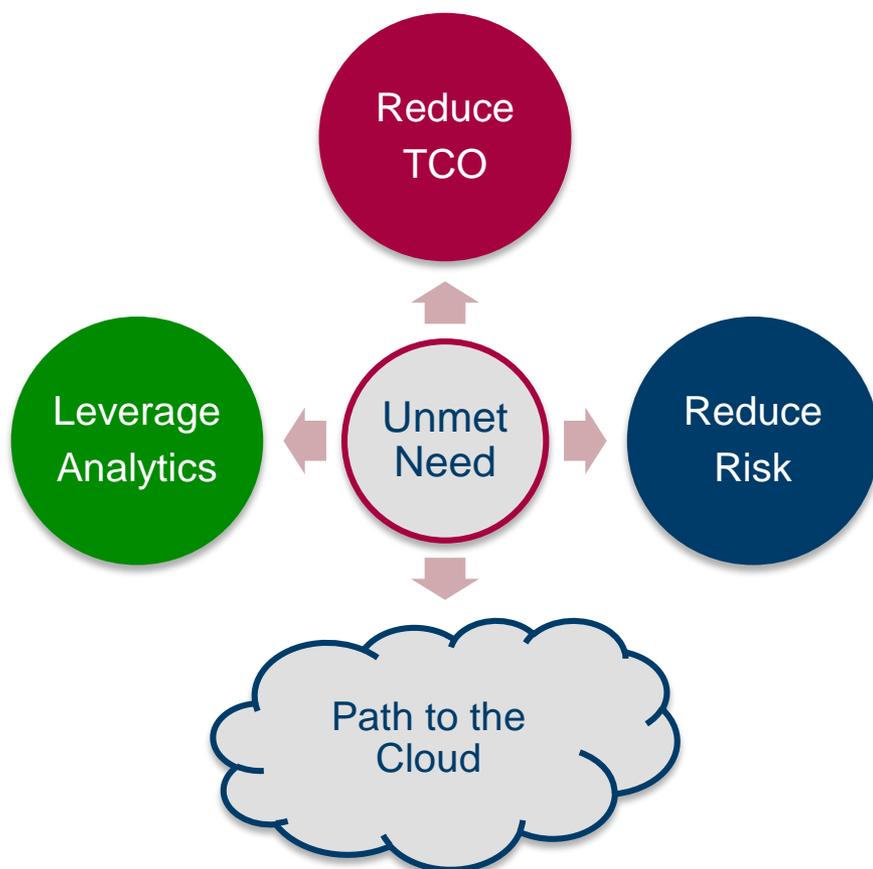
Data Discovery

- Restricted search capability across massively complex data repositories

Data Value

- Storage is seen as a cost center versus a strategic business enabler

Customer Priorities



Reduce TCO

- Reduce CAPX with no vendor lock in
- Constrain data growth & storage OPEX

Reduce Business Risk

- Meet compliance & regulatory mandates
- Simplify storage & data management

Leverage Analytics

- Drive new revenue streams
- Gain competitive advantage

Path to the Cloud

- Simple, agile cloud migration model
- Transparent, non-disruptive transition

Path to the Cloud

Platform 1 to 2 Transition

- Platform 1 to 2 expensive & costly process
- Required costly recoding & migration effort
- Client/Server sometimes layered on top of legacy solutions to avoid pain

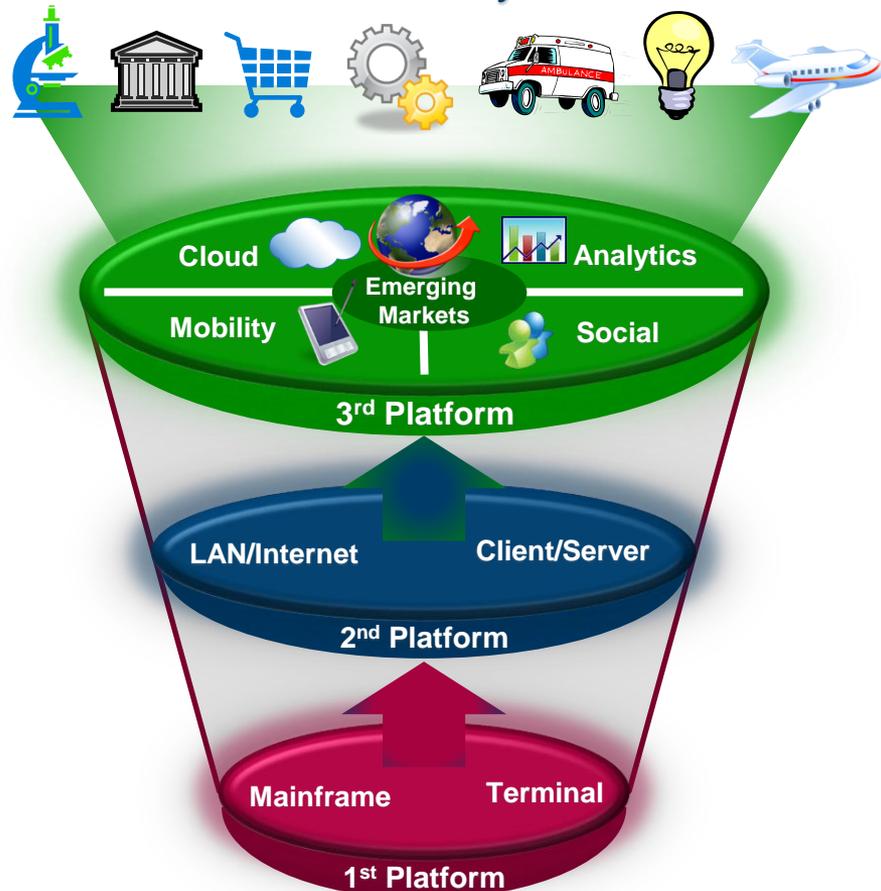
Platform 3 Benefits

- Reduced total cost of ownership
- Information & data mobility with BYOD
- Enhanced business agility
- Business transformation opportunities

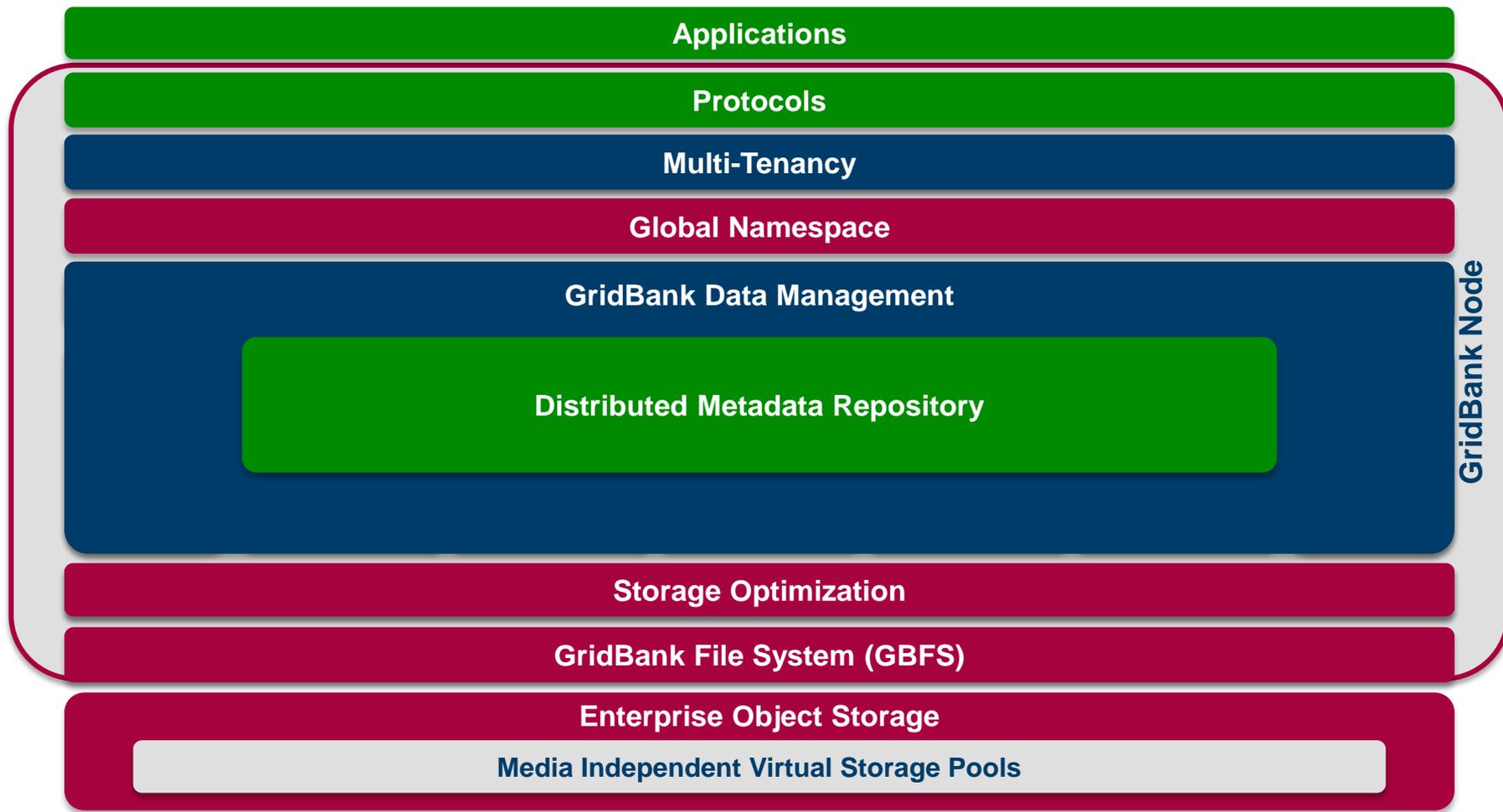
Transparent Transition

- Data Defined Storage enables non-disruptive transition to the cloud
- Application aware solution for accessing the 3rd platform
- Growing list of application integrations & certifications

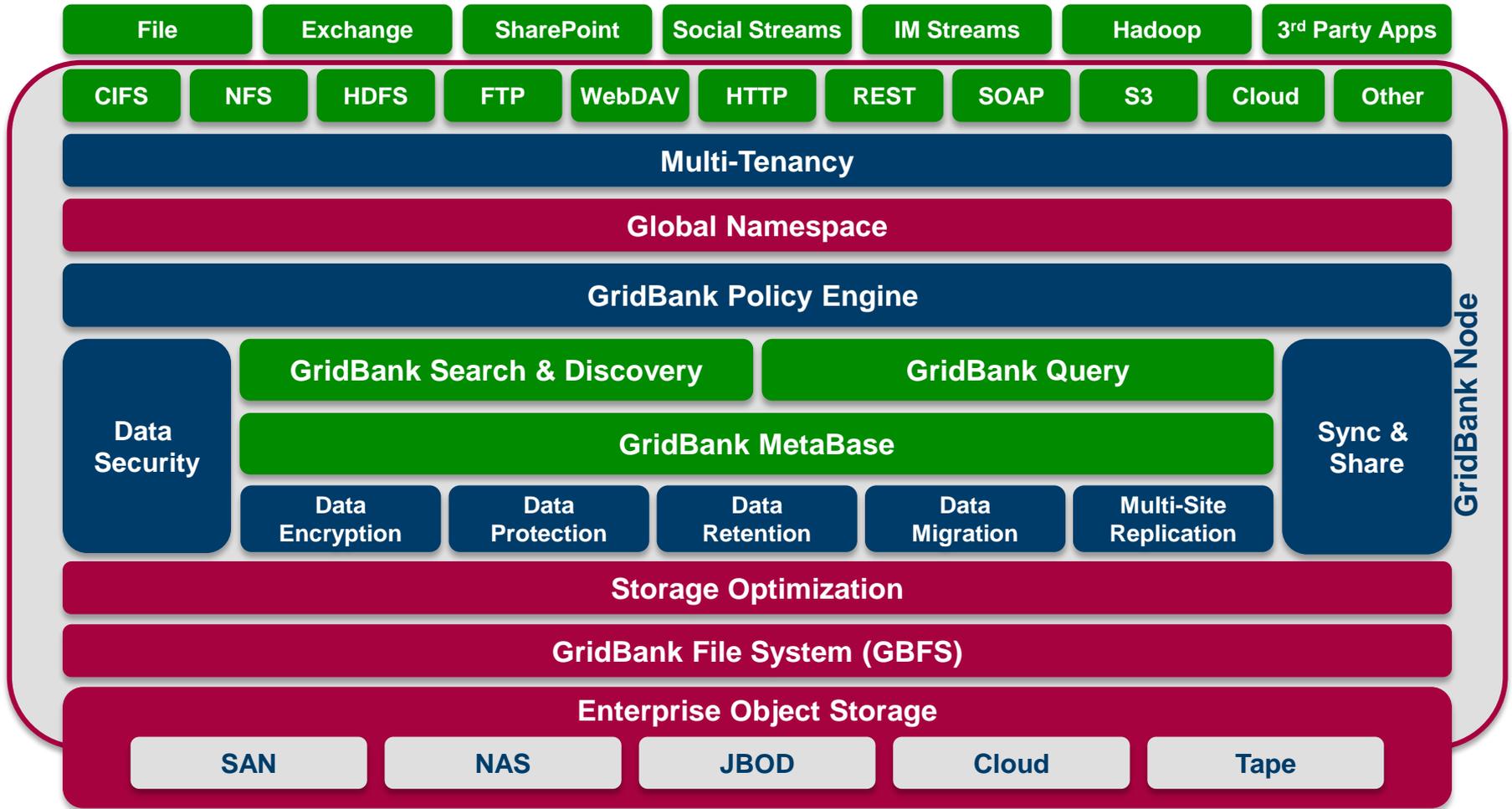
Innovative Industry Solutions



GridBank Solution



GridBank Solution



GridBank File System & Optimized Enterprise Object Storage

Improved Infrastructure Flexibility

- Media independent storage pools for infrastructure choice & reduced CAPEX
- Supports all media targets, including SAN, NAS, JBOD, Cloud & Tape
- Massively & linearly scalable to multi-PB through grid architecture

Consolidated Infrastructure for Operational Efficiencies

- Eliminate data silos for improved operational efficiencies
- Easy to administrate, centrally managed fault tolerant & self-healing platform
- Improve FTE/TB ratio & reduce overhead of managing massive data growth

Storage Optimization Solution

- Variable chunk distributed Object Dedupe across unstructured data estate
- 10 compression algorithms for optimal compression/performance trade off
- Improve storage utilization through thin provisioning

Data Security

- Identity driven Active Directory/LDAP RBAC & data auth
- POSIX compliant file system access permissions
- Full audit for all real-time & historical data operations

Sync & Share

- GridSync & Share for BYOD & enhanced data mobility
- End-to-End protection across all smart devices
- Compatible with iPhone, iPad, Android, Windows & Linux

Policy Orchestrated Data Management

- Automated information governance framework
- Policy templates for simplified data management
- Granular data selection, classification & tagging criteria

Grid-Based Policy Management

- Scalable policy execution throughout grid architecture
- Policy management at grid, site, pool or dataset level
- Policy monitoring, auditing & reporting dashboard

GridBank MetaBase for Business Agility

GridBank MetaBase

- Distributed key:value store for file, content & custom metadata
- Ingestion & indexing of over 550 types of file format
- Industry-specific file type modules for core verticals

Search & Discovery

- On-demand high availability access to critical information
- Unified search across all consolidated data sources
- Enhance knowledge worker efficiency with optimized search

Big Data Analytics Integration

- Integrated with analytics engines for metadata query & analysis
- Execute queries against the MetaBase vs entire unstructured data
- Improved time to insight & trend analysis via data-in-place analytics

GridBank Data Management for Reduced Risk

Data Encryption

Secure Data Encryption

In-Place & In-Flight Data Encryption

Supports 5 Encryption Algorithms

Data Protection

Data Replication & Striping

CRC32 Integrity Checking

Tamper-Proof WORM Storage

Data Retention

Long-Term Retention Management

Maintain Regulatory Compliance

Granular Legal Hold

Data Migration

Integrated Data Mover

Policy Driven Tiering

Enterprise Information Archiving

Multi-Site Replication

Geo-Aware Replication

Optional Synchronous / Near Synchronous

Low Latency Local Caching

Multi-Tenancy

- Logical data separation across all tenants
- Secure provisioning of storage-as-a-service
- Self-service, charging & bill back for enterprise IT

Global Namespace

- Single, unified view of data across organization
- File system virtualization for authorized access to data
- Browse & search queries hit MetaBase vs storage

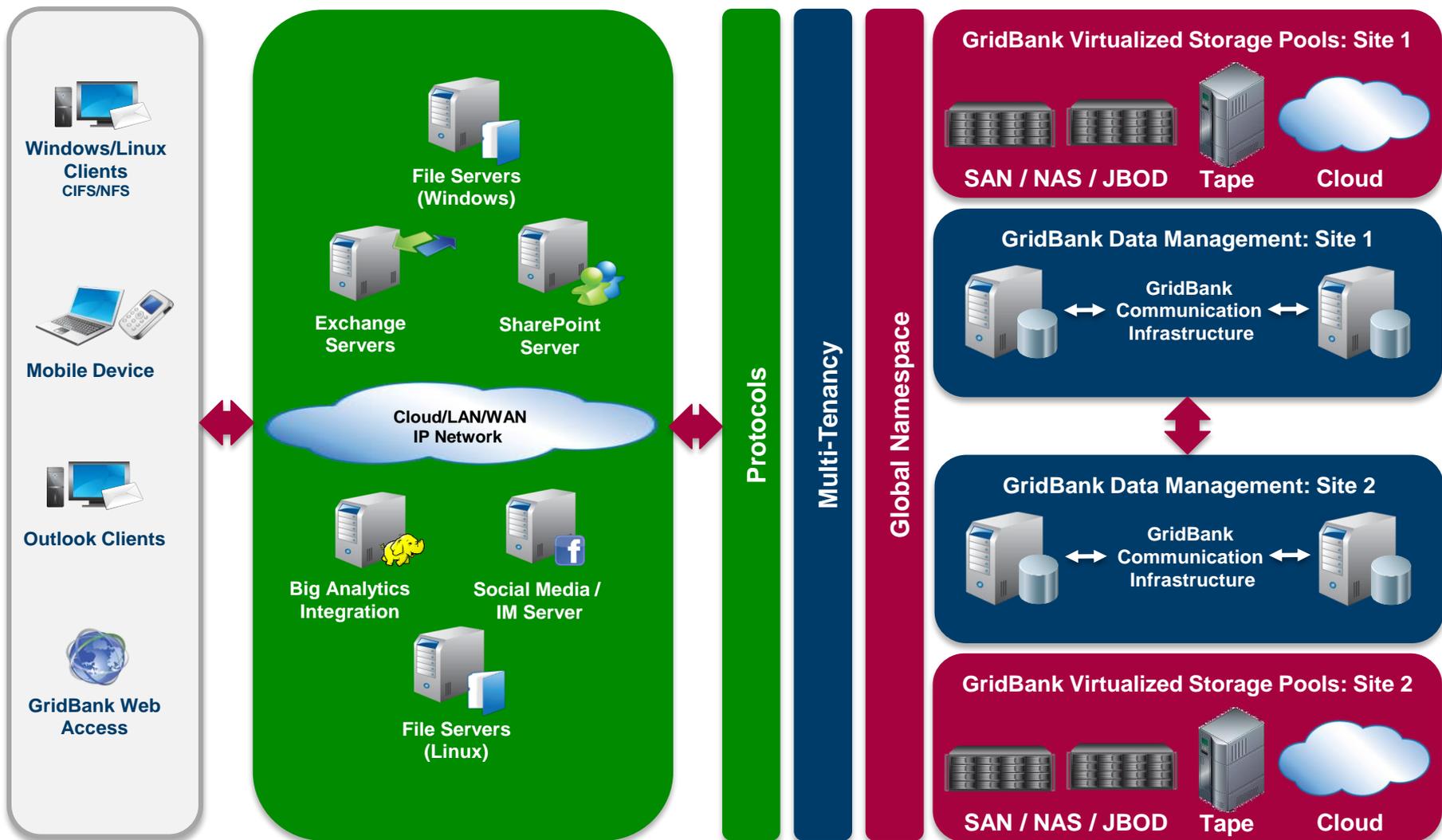
Protocols

- Access to all stored data through open standards
- Wide range of TCP/IP protocols for data access
- Flexible support for CIFS, NFS, REST, S3 & more

Application Awareness

- Data aware for a wide range of LOB applications
- Understanding of over 550 formats at the data level
- File, Exchange, SharePoint, IM/Social & Hadoop

Deployment Diagram



Client TCO Benefits

Cost point	DDS Advantage	Saving
\$/TB cost of storage	Lower cost through storage optimization	20-30%
Storage footprint	Dedupe & compression	50-80%
Power, space & cooling	Higher TB/floor tile ratio	25-50%
Effective utilization of disk	Increased utilization reduces wasted space	20-50%
FTE's/TB	Simpler, unified management interface	20-75%
e-Discovery	Federated enterprise-wide search	85%+

Testimonials

"The rapid growth of our company is generating more and more data... GridBank allows us to store and protect our G&G data and create a platform for improving business efficiency while reducing TCO"



- David Edwards, Group Head of Information Systems, Premier Oil, Plc.

"We are very impressed with GridBank and see it as an important part of our strategy for ensuring customers achieve unmatched value from their relationship with brightsolid"



Richard Higgs, Managing Director, brightsolid Online Technology

"The object platform industry is just getting started in capturing a bigger piece of the scale-out unstructured data storage... opportunity, which IDC has forecast will be worth \$27 billion by 2017 and is... becoming known as the "data-defined storage" market."



- Ashish Nadkarni, Research Director, Storage Systems, IDC

GridBank Benefits

Data Defined Storage

- Takes a single, holistic, comprehensive data centric approach
- Consolidates application data across large, distributed locations & cloud
- Provides big data insight & analytics & application integration

Data Consolidation

Massively Scalable Architecture

Reduce TCO

Enhance Operational Efficiencies

Data Management

Simplify Data Management

Enforce Compliance

Reduce Business Risk

Data Value

Improve Business Agility

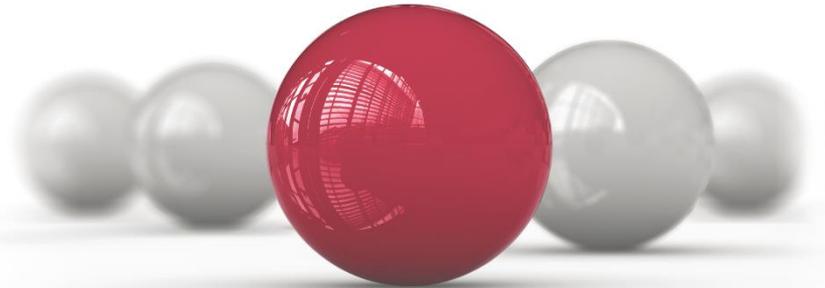
Drive Revenue Growth

Increase Competitive Advantage



Thank You!

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