5x Performance

Half The Footprint
About CollabNet

- Leader in software development and application lifecycle management (ALM) tools
  - On-premise and CollabNet hosted as a managed service
  - Check out (update), check in (commit), app release cycles
- Creator of Subversion, cloud-hosted version of CloudForge
- 1st Cloud-based ALM delivery platform solution

- 10,000+ Customers
- 6M+ users
- 280 Employees
Development Platform-as-a-Service (dPaaS)

CollabNet’s Requirements:

- 99.9% Uptime SLA
- Data protection
- Data security
- Multi-tenant and single-tenant cloud options
Storage Topology – Before Flash

285RU
40K IOPS
On Disk
More of the Same?

- Infrastructure wasn’t keeping up with customer performance demands
- Coming up on maintenance renewals
  - Maintenance was going to be costly
- Storage controllers were going EOL and needed to be replaced
  - Keeping existing solution and upgrading would cost ~$1M
Generational Change

Pre-Flash Architectures
- Disk-Based
  - Protocols/features evolved over time
    - Pre-virtualization workloads

Post-Flash Architectures
- Flash-Driven
  - Built to address IOPS & latency challenges
  - Virtualization & analytics workloads
Flash Implementations

Legacy Approach
- Retrofit legacy arrays with SSDs
- Use tiering software for passive migration
- Expensive and inefficient

Server-Side Flash
- Flash storage in server
- High performance
- VMs in server islands
- No shared storage
- No high availability

Scale-Out
- Clustered DAS servers
- SSD & HDD DAS
- Inconsistent performance
- CPU and memory shared across apps & storage tasks

Hybrid
- Flash for performance
- Hard disk for affordable capacity
- Balances cost, performance and capacity

All-Flash
- High IOPS
- Low latency
- Cost-prohibitive for non-critical workloads
Flash Vendors

Legacy Storage
- Bolt-on flash
- Expensive & inefficient

All-Flash Arrays
- Low latency applications
- Very high IOPS workloads
- Subset of workloads

Hybrid Storage
- Intelligent use of flash storage
- Balance performance & cost
- Broad set of workloads

Converged Systems
- Combined servers & storage
- Scale-out architecture
- Inconsistent performance
- Branch office solution

Server-Side Flash
- Extreme IOPS workloads
- Expensive
- Niche solution
CollabNet: Benefits of Flash Storage

- **Performance**
  - Application runs noticeably faster
  - Subversion CloudForge had been hosted externally – brought in-house, control, etc.

- **Cost**
  - Significant data-center footprint reduction
  - OPEX cut in half
  - Flat Maintenance & Support

- **Continue using multiple protocols (iSCSI and NFS)**

- **Disaster Recovery**
  - Replicate between All-Flash and Hybrid arrays

- **Easier to Manage**
  - Eliminated need to manage massive amount of disks

- **Data Security**
  - Healthcare and financial services customers require encryption to comply with industry and gov’t regulations
Storage Topology – After Flash

- **Tegile Hybrid & All-Flash Arrays**
- **PostgreSQL**
- **MongoDB**

**On Disk**
- 285RU / 40K IOPS

**On Flash**
- 135RU / 200K IOPS

- **WAN Replication**
- **Secondary Location for DR**

Flash Memory Summit 2015, Santa Clara, CA
How Is Tegile Different?

**All-Flash & Hybrid**
Dial up performance AND capacity to accommodate your future needs

**Multi-Protocol Support**
Native support for block AND file protocols (iSCSI, FC, NFS, CIFS/SMB 3.0)

**Superior Data Reduction**
Inline compression AND deduplication

**Simple Administration**
Intuitive web UI, app integration AND cloud analytics

**Enterprise Resiliency**
Fully redundant hardware AND active/active controllers

**Affordable Disaster Recovery**
Replicate between all-flash AND hybrid configurations
IntelliCare™
Cloud Analytics & Support

IntelliStack™
Converged Infrastructure Solutions

Intelligent Flash Arrays
Powered by IntelliFlash™

IntelliCare™
Flash 5 Guarantee

Tegile Agility™
Utility-Based Pricing
One Flash Platform. Any Workload.

Thank you!