



Going Strange at the 2015 CES and SV 2015



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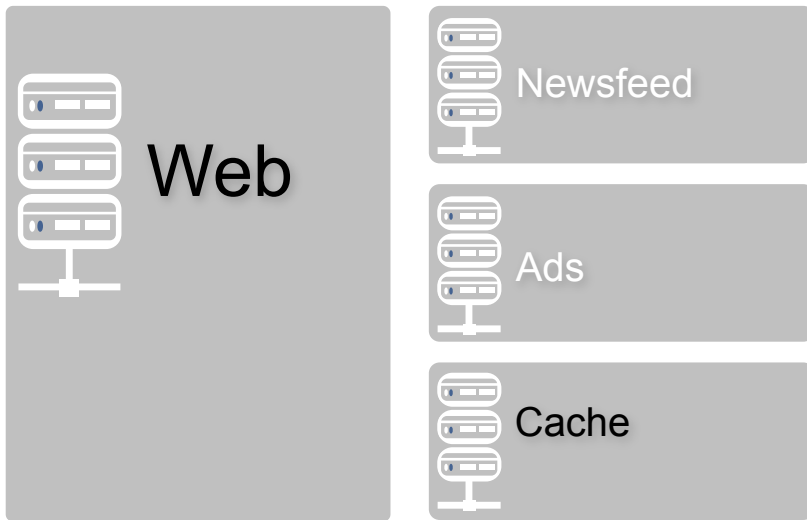


Storage at the 2015 SV and CES

- Very few storage products on the floor of the CES (unlike last year)
- Is the CES being hollowed out—lots of covers and foo-foo stuff
- Storage companies were at Storage Visions or in hotel suites
- Facebook tells all about their storage infrastructure--Optical storage returns?

Storage in Facebook Infrastructure

Front-End Cluster



Flash Backend Cluster

User DB

Timeline DB

Ads DB

Service Cluster

Search

Instagram

Messaging

HDD Storage Cluster

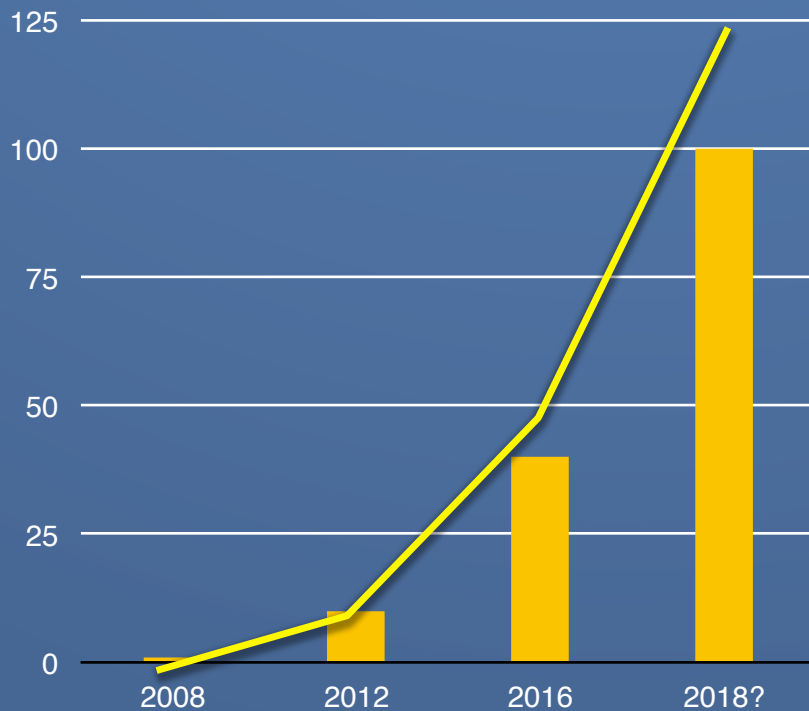
Photo/Video

HDFS

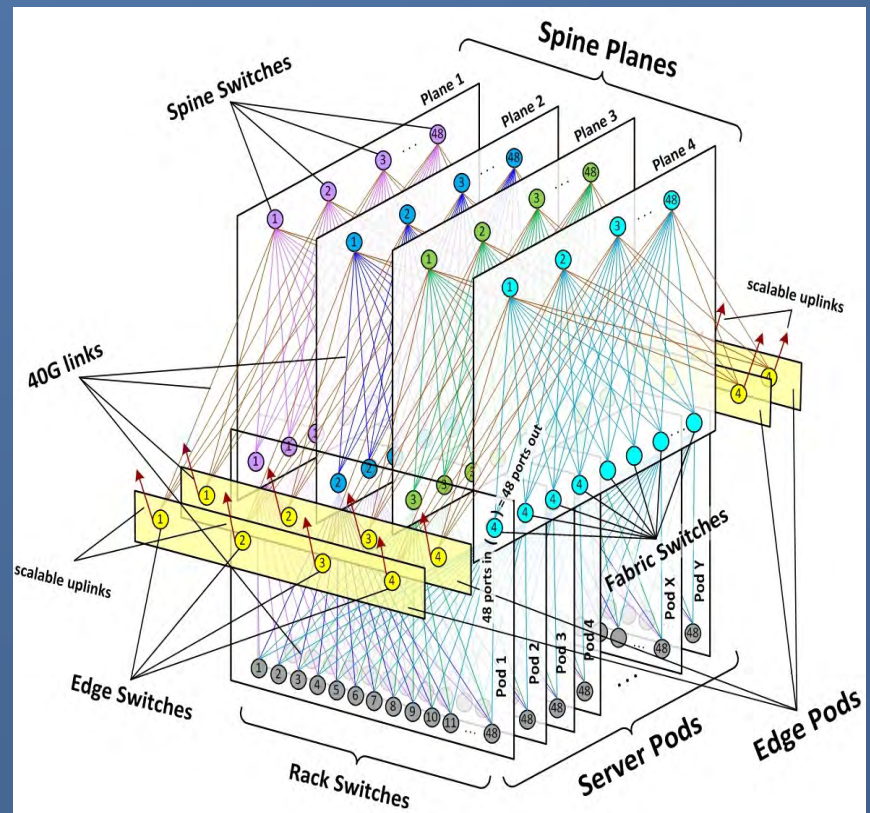
Cold Storage

Disaggregated Rack - Faster Networking Made it Possible

Facebook's first fabric network is taking traffic now



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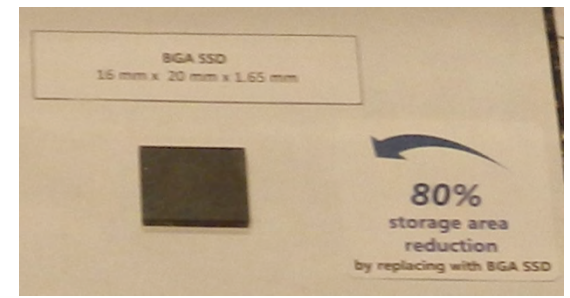


Optical Archive Racks for Cold Storage

- Optical has longer life expectancy: 10-15 years
- 1PB rack density now, 2~4PB in a few years
- Making Cold Storage agonistic to media types

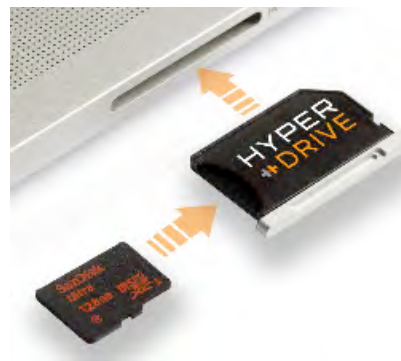


SSDs



- Samsung introduced their 500 GB T1 Portable SSD
- SanDisk Optimus MAX 4 TB HDD for Enterprise Applications
- OWC Envoy Pro, up to 1 TB
- Toshiba BGA SSD
- SanDisk SSD Plus for laptops & desktops
- Promise 2 TB Pegasus2
- Lite-On TLC SSD
- Tuxera Flash File System for Linux and Android

Plugs ins



- Lots of Lightning Connector External Storage Devices
- Cards (big and adapter)
- Geegaw USB Sticks





HDDs

- Seagate Seven., 7mm 500 GB 2.5" HDD
- LaCie 2-HDD Rugged RAID
- G-Tech Rugged Storage
- WD 4 TB Hybrid Drive
- Idrive Encrypted Wireless Backup
- LaCie Mirror
- Inside a He-HDD



NAS and RAID Storage Systems



- AsusStor NAS Appliance
- Netgear ReadyNAS 200 Series
- Qnap NAS appliances with AMD quad-core
- Ciphertex Thunderbolt Portable Array

Personal Clouds & Wireless Drives

- Synology
BeyondCloud
Private Cloud
- Seagate
Personal Cloud
- Seagate
Wireless goes
Primary Colors
- Toshiba
Wireless HDD



Other Things of Interest



Techsling Mobile Device Holders



Nanoport Magnetic Electrical Connection



Corning Fiber Optic



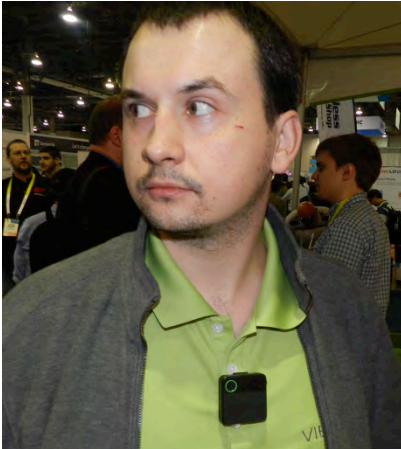
Mota Smart Ring



Giroptic 360 Degree Panoramic Camera & Globe Projection



Watching, Making & Glowing



VieVue Personal Recorder



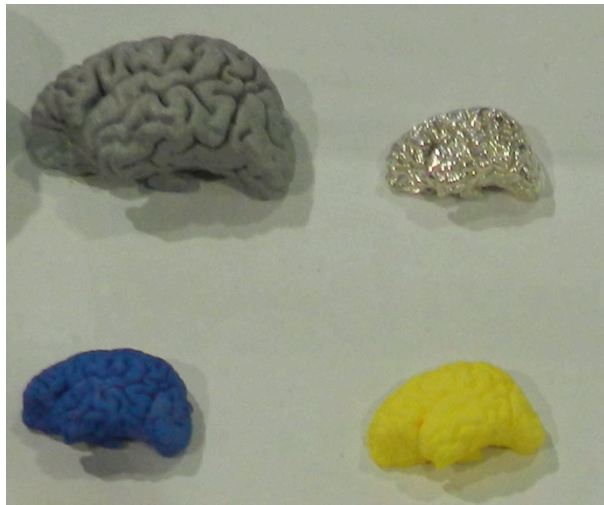
Automobile Recorders



New 3D Printing Materials:
Limestone, Iron,
Maple & Bronze

Chinese Tube Audio





Remember...

MIND THE TIME GAP