

Promise introduction

Value, not volume

Transform storage device provider to solution provider

Chairman Office
Alan Cheng

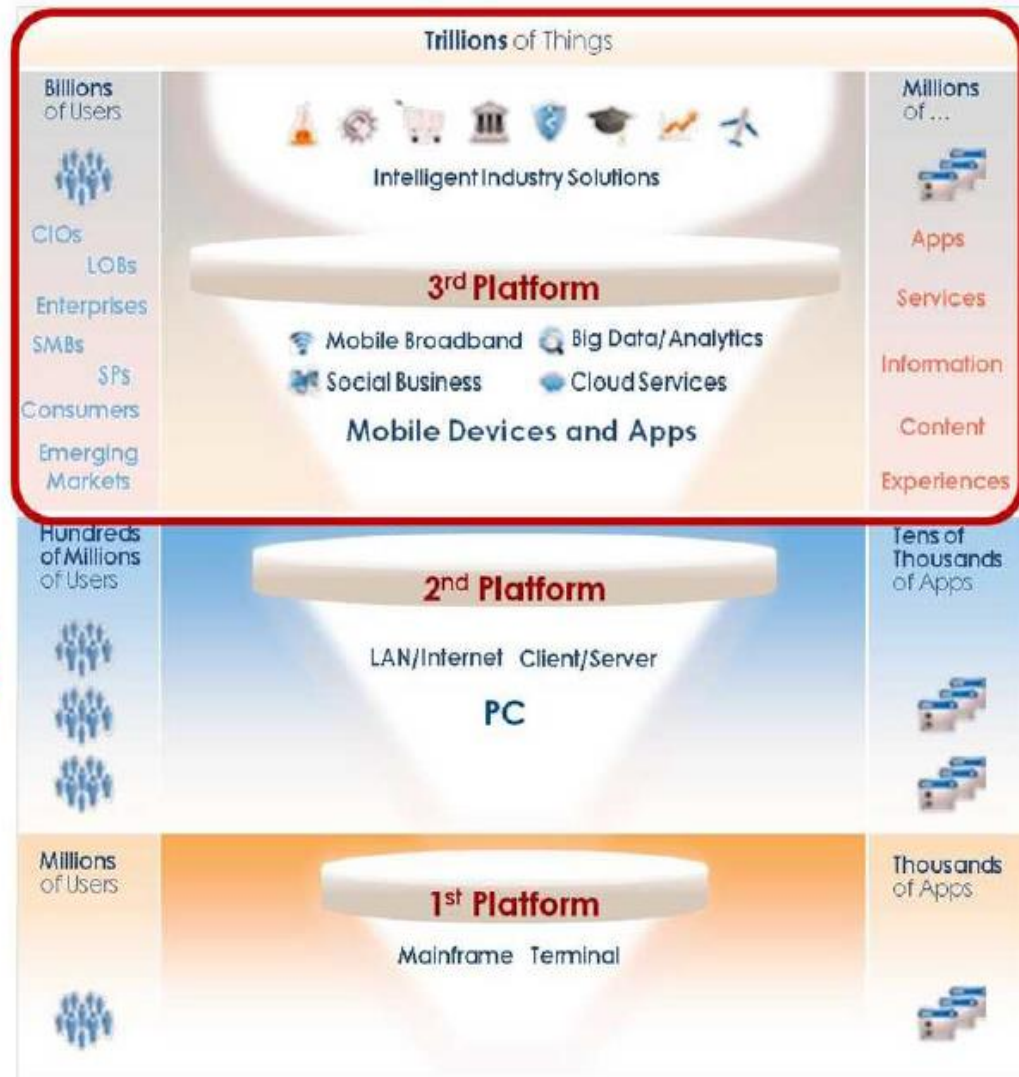
- Industry Trend and Opportunities
- Promise's Global Operation
- Promise at a Glance
 - Customers ,partners and products
 - Financial status
- Growth Strategy
- Three Segments case study
- Q&A

AGENDA

IT Trend - IDC predictions 2013 (2012/11)

- 2013 WW IT spending: \$2.1T (up 5.7%)
- By 2020, when the ICT industry reaches \$5 trillion.
- The 5 key technologies drive 98% of future ICT growth: IOT , Mobile, **Cloud computing**, Social business and **Big Data Analytics**. (22% to 40%)
- Gartner: 80% couldn't get the benefit from Big Data by 2015.

ICT Innovation 2005–2020+



ICT Innovation 1985–2005

- ECB storage
 - WW ECB market size will be US\$ 30B (2017, CAGR 5.6%, Gartner)
- Cloud
 - WW cloud market: \$ 67.6B(2017, CAGR 38%)
 - WW cloud storage: \$ 12.1B (2018, CAGR 40%, Market and Market)
- Big Data
 - WW \$10B in 2013. \$20B in 2016. (CAGR 39%)
 - China : \$0.08B to \$0.6B in 2016 (CAGR 51% ,IDC)
 - Taiwan: \$0.024B in 2012 to 0.0365B by 2015.(CAGR 24% ,III MIC)
- Surveillance Storage
 - WW \$6.4B in 2015 (CAGR 19%, PIDA)
- Rich media Storage
 - WW \$ 11.9B in 2018 (CAGR 14%, Coughlin)

Promise's Global Coverage

● ● PROMISE OFFICE



WW employee no. 500 (46% in R&D) 2013 Rev. : US\$ 122M

Snapshot of Promise

- Top 10 Storage vendor worldwide
- High Margin: 42.2% (entry barrier)
- RD/Rev. of Promise is 15% > Tier 1 IT vendor 6%~8%
- Promise brand v.s. ODM: 45% v.s. 55%
- 80%+ rev. from US & EMEA, WW brand, S&M, channel & service



Vendor	2013 Revenue US\$M	2013 Market Share	2013-2012 Growth rate
EMC	7,723.20	34.3%	3.69%
IBM	2,853.50	12.7%	-3.72%
NetApp	2,666.70	11.8%	6.32%
HP	2,081.30	9.2%	6.05%
Hitachi/HDS	1,997.00	8.9%	-6.60%
Dell	1,474.20	6.5%	-8.42%
Fujitsu	484.7	2.2%	5.90%
Oracle	223.6	1.0%	-30.06%
Promise	121.8	0.54%	15.92%

Income statement, 2010~2014 Q1

(In NT\$ Millions)	2010	2011	2012	2013	2014 Q1
Net Revenue	2,614	2,828	3,108	3,617	884.6
Gross Margin	50.3%	40.2%	38.7%	42.2%	43.1%
Operating Expenses	1,301	1,253	1,052	1,156	307.6
Operating Margin	0.5%	-4.1%	4.9%	10.2%	8%
Net Income	6	(183)	101	331	83.4
Net Profit Margin	0.2%	-6.5%	3.2%	9.1%	9.4%
EPS(NT\$)	0.04	(1.25)	0.68	2.22	0.52
ROE	0.3%	-11.7%	6.4%	17.2%	3.66%
FX rate(NT\$/US\$)	31.518	29.390	29.574	29.689	30.27

Worldwide customers and Partners



中華電信



我的大哥大
台灣大哥大



Microsoft®



acer

AMD

ASUS®



lenovo 联想

HITACHI
Inspire the Next

SONY

TOSHIBA
Leading Innovation >>>



Western
Digital

FUJITSU

SUPERMICRO®

NEC

Kodak

AVNET®



NOVA
DESIGN
浩漢設計

TYAN

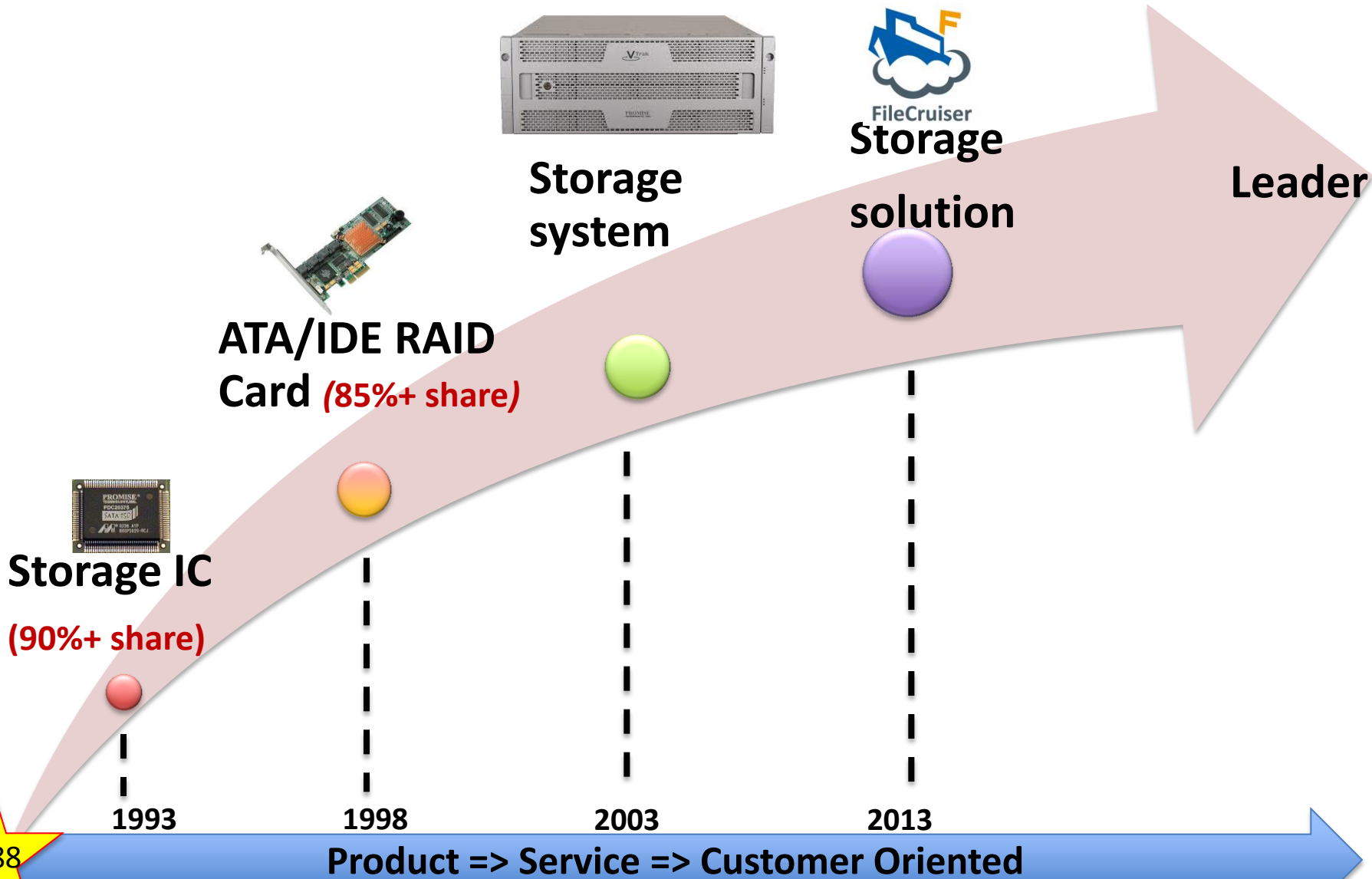


RAID
INCORPORATED



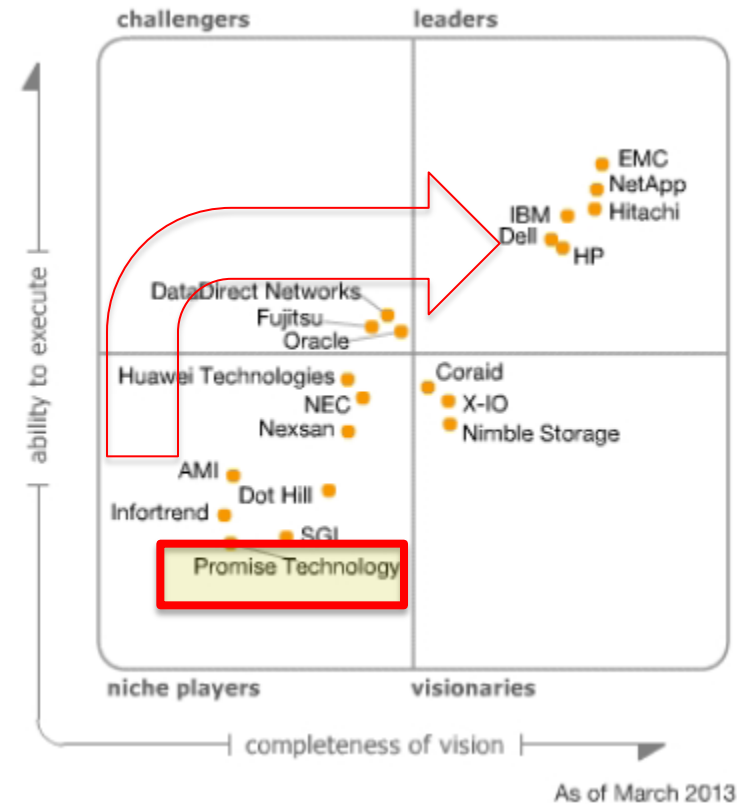
同有 北京同有飞骥科技有限公司
TOYOU TOYOU FEIJI ELECTRONICS CO.,LTD.

Positioning Change



- Re-Positioning
 - From Device vendor to Solution vendor, provide storage solutions to compete with worldwide storage vendors.
- How to achieve:
 - Solution oriented: In-house design SW application and ally with 3rd ISVs.
 - Provide industry application, not IT application
 - Surveillance: Vess A-Class
 - Rich Media: VTrak A-Class
 - Cloud storage: FileCruiser, Object Storage, Block Storage.

Gartner Report 2013-03-21



Surveillance

Cloud

Rich & Media

Customer oriented

Market

PIDA:

1. 2015 Worldwide surveillance storage will reach US\$ 3.8B with 19% CAGR.

Strategy

1. Ally with WW VMS leader to develop next generation of VMS.
2. Provide tailor made surveillance solution with better performance.

Market

Markets and Markets:

1. 2018 Worldwide cloud storage will reach US\$ 46.8B with 40% CAGR

Strategy

1. Provide SAAS and IAAS with object cloud end to end solution to Government, enterprise and education industry.

Market

Coughlin (2012) :

1. The storage of R&M will grow to US\$ 11.9B in 2018 with 14% CAGR.

Strategy

1. Provide 4K & 8K HD ready SAN solution
2. Penetrate back up and archive segment

Industry oriented storage solution

IT/Cloud storage

**Platform – VTrak, Vess
and Storage Server**



**Solutions – FileCruiser: File
Sharing and Synchronization**



**Solutions – Scale-Out Object
and Cloud Block Storage**



Markets for Private Cloud

- Educations, Telecomm.,
Manufacturing, Enterprises,
Transportations, Financial
Institutes, Medicare, etc.

Surveillance storage



Vess A2600



Vess A2200



Vess R2000 Series

Rich media storage



VTrak A-Class
VTrak x30 Series



SANLink



Pegasus R4/R6



Pegasus J4 & Pegasus J2



Product Line by Segment

SOHO & Home



Portable & Collaboration Storage

- Consumers/ProSumers
- Photographers
- Rich Media Post-Production
- Design Studios



Pegasus J2/J4

SMB



SMB Unified Storage

- Virtual Servers
- FC/iSCSI SAN, NAS
- Backup & Archive
- Surveillance



VessApp Series



Pegasus R4/R6



FileCruiser

Enterprise

Scale-Out Shared SAN

- Rich Media Integrated Appliance
- Post-Production/Broadcast



SANLink

Rich Media FC SAN Connectivity

- All Thunderbolt devices
- Pegasus to VTrak




VessRAID 2000 Series




SMB/Enterprise Cloud Storage

- Access Anytime Anywhere
- On-Site Private Cloud Security

Datacenter




VTrak Ex30/Jx30



VTrak A3800 Series

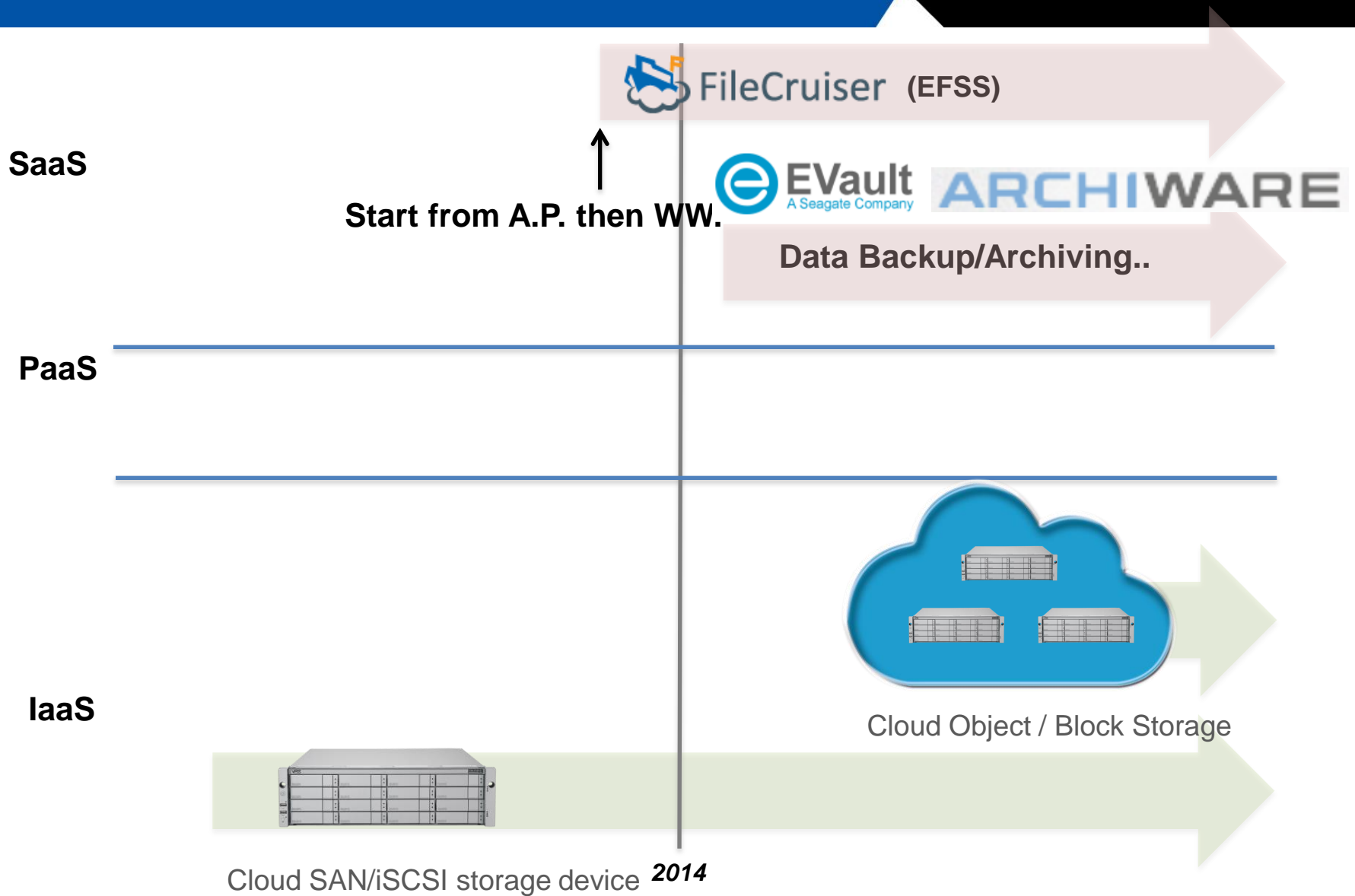
FC SAN

- Big Data, Cloud, Datacenter
- Data Asset Management
- Post-Production/Broadcast
- Archival
- File Sharing



Case study - Cloud

Cloud strategy



Internet Datacenter in US

- PROMISE VTrak installed in an Internet data center in the USA
- Installation of 9000+ VTrak chassis
- Over 100PB+ of usable storage and growing!



- CERN initially deployed over 200 VTrak J830s expansion chassis
- In 2013, will add over 300 more VTrak Jx30 units to CERN's growing deployment



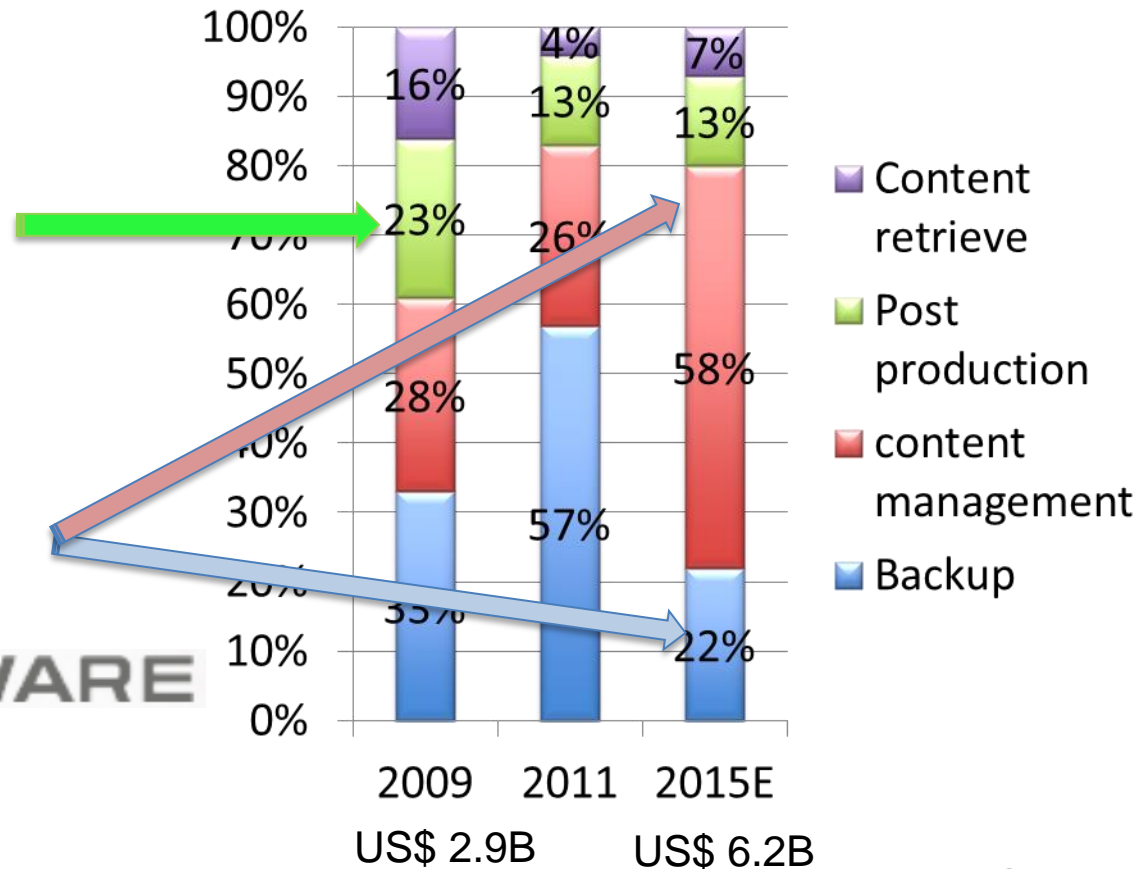
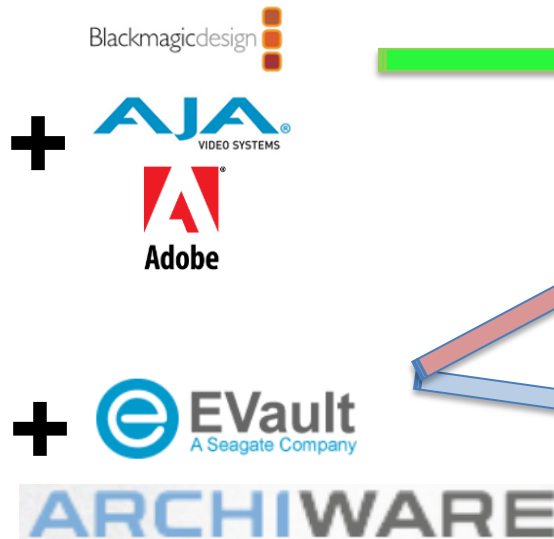
“During a significant two-year deployment ramp-up, the flexibility and reliability provided by the PROMISE VTrak J830s units met our expectations. We are able to use them both for our bulk storage as well as in high availability configurations for critical services.”

*Olof Barring
Technical Responsible for Procurement of Servers and Storage, IT Department,*

Case study – R&M

Rich media strategy

- Ally with third party ISV to penetrate R&M application portion.
- 4K/8K opportunity: Thunderbolt 2 product from SMB to enterprise.



4K opportunity

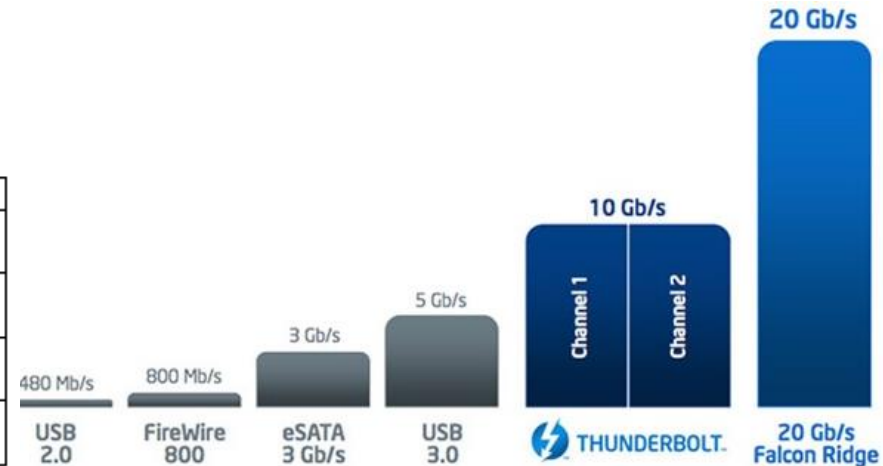
	2013	2014	2015
4K Panel size in 39" to 48"	1M pc	5M pc	10M pc
4K Panel size in 50"+	2M pc	8.5M pc	22.5M
4K panel / total Panel	1.3%	5.7%	13.8%



Source: TRI, 2013

Table 2. Feature Film Metrics (24 fps, 10-bit deep, 3-color file assumed)

	2K Resolution	4K Resolution
Size of Single Frame	8.3 MB	53 MB
Avg. Storage Size of Finished Film	2 TB	8 TB
Data Generated During Production	100-400 TB	400-1,600 TB
Typical Data Rate for Real-Time Film Playback	200 MB/s	1,274 MB/s



VTrak A-Class FC Shared SAN + NAS Gateway

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SAN Clients

Mac Pro



MacBook Pro

PC Workstation



SANLink2

Direct 10GBaseT connectivity

via THUNDERBOLT.



HD, 4K cameras



Portable backup for offsite production shoots



NAS Clients



Mac



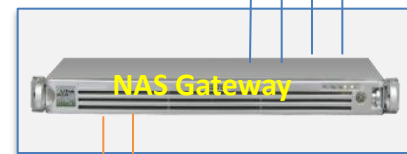
Linux



Windows



1Gb Switch

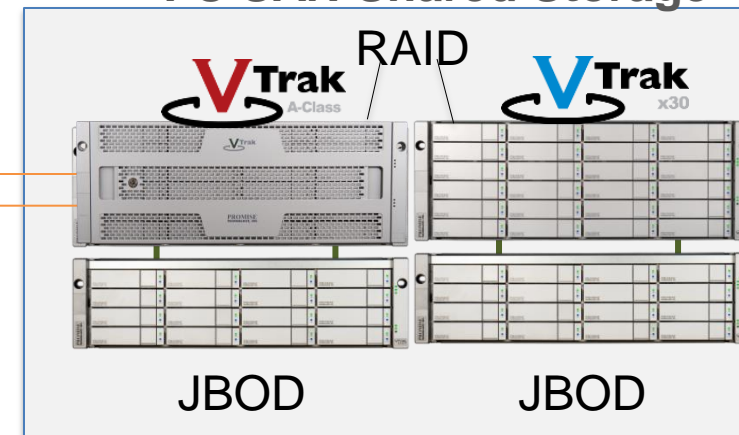


NAS Gateway



Fibre Channel

VTrak Scale-Out FC SAN Shared Storage



4K video editing and collaboration
(VTrak A-Class supports 4K streaming)

4K (Ultra HD)

VTrak A-Class and Pegasus Case Study – ESPN Monday Night Football

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Customer Story

ESPN MONDAY NIGHT FOOTBALL

PROMISE Storage at Forefront of National Sports Broadcasting

KEY HIGHLIGHTS

Challenges

- Required storage to ingest, edit, and deliver HD video clips for broadcasts of Monday Night Football
- Apple X-Serve RAID could no longer handle increased file sizes and data rates of production environment

Solutions

- PROMISE VTrak A-Class
- PROMISE Pegasus R6 (12TB)
- PROMISE SANLink

Benefits

- Significant bandwidth to work natively with 1080 px video on Sony FS-700 camera
- Seamless firmware and hardware upgrade path for future 4K acquisition and delivery requirements
- "Beyond outstanding" support to ensure Monday Night Football workflow is performed at the highest levels



About ESPN

Known for its leading comprehensive sports programming around the world, ESPN has led television sports broadcasting since 1979 and has introduced many technological innovations such as slow motion replays, animation, and computerized graphics (CGI) to audiences worldwide. Monday Night Football is ESPN's live broadcast of weekly professional football games with which it is ranked as one of history's highest-rated television programs as well as one of the longest-running prime time commercial network television series.



Apple Xsan & Promise VTrak @ the Olympic Games



To support that workflow in the Beijing studio, Televisa devised an integrated Apple Xsan network with 30 Mac Pros running Final Cut Studio and 50 Xserves connected via Fibre Channel using a QLogic 9200 Director-class switch, along with another 12 iMac editing stations connected over standard Ethernet. To hold all of the generated footage, Televisa's network includes 200 terabytes of storage using Promise Technology Raid arrays. The solution is designed to handle 22 simultaneous ingest channels of live footage and support the almost 50 Final Cut Pro editing workstations, mixed between offline-quality proxy editing and online editing. The daily workload is up to 12 hours from each of the 22 channels of incoming footage.

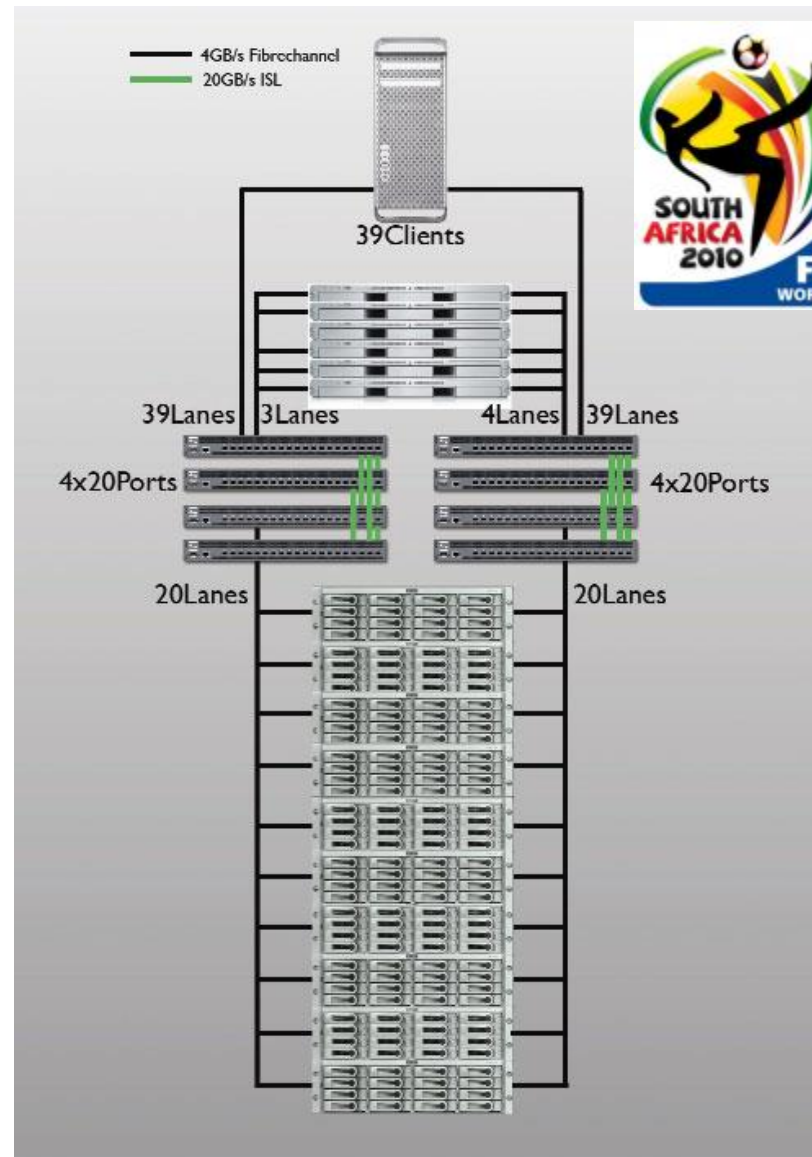


VTrak @ the World Cup

Solely HDTV (16:9) is used for the first time.

For the services of the International Broadcast Centre storage capacity is less critical than the reliably available data transfer rate.

10 Promise VTrak E-Class units with 16 SAS hard drives (3,5 Inch, 15.000 rpm, 450GB) in each of them are networked together and simultaneously utilized as a RAID 5 set. The expected data transfer rate for the access on about 66 TB usable storage capacity is 10 x 300 MB/s



Case study - Surveillance

SONY - Vess for SONY IP Surveillance Solutions

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SONY



External Storage Options

SAS Storage

- NSRE-S200 2TB Storage

ISCSI Storage (VessRAID series)

- Multi-path redundancy
- Easy Maintenance
- Quick Setup & Easy Operation
- Green Power Management
- Capacity Expansion up to 80TB
- Short Depth and Light Weight

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Sony Green partner certification
Multi-path redundancy
Easy Maintenance
Quick setup & simple operation
Green Power Management
Capacity Expansion up to 80 TB

- Outer Mongolia ∙ Mongolia Mine Project
 - Customer used EMC Isilon as their Surveillance Storage. The system works fine initially, but after recording video for few days, the frame lost found at other storage vendor.
 - EMC upgrade the storage to their enterprise level storage (cost \$50,000+ per unit), but the problem is still there.
 - Customer replaced EMC with Promise VessRAID 1000, the problem solved.
- Configuration
 - Camera Qty: Around 5000
 - Retention Period: 30 days
 - NVR: Each manages up to 64 cameras, 7 days to record locally, rewrite pattern
 - Backup Server: Each manages up to 8 NVR servers, 30 days to record
 - Estimated Storage Required : 300TB with each backup server
- Deployment
 - Location 1 – 512 cameras
 - Location 2 – 512 cameras
 - Location 3 – 512 cameras
 - Location 4 – 512 cameras
 - Location 5 – 512 cameras
 - Location 6 – 460 cameras



- **China Hangzhou Station Project**
 - Customer used Dell storage as their surveillance storage, the solution works fine in the first month. When surveillance recorder starts to overwrite video data on the disk array volume, the video frame lost found at the deployed other storage vendor.
 - Replaced Dell with Promise VessRAID 1000, the problem solved.
- **Configuration**
 - Camera Qty: Around 100+
 - Image resolution: 720x480@D1
 - Retention Period: 30 days
 - NVR: Each manages up to 32 cameras, rewrite pattern
 - Estimated Storage Required : 300TB with each backup server
- **Deployment**
 - Location 1 – 32 cameras
 - Location 2 – 32 cameras
 - Location 3 – 32 cameras
 - Location 4 – 32 cameras



- **Ohio University Project**
 - There are currently a couple of hundreds cameras deployed campus wide, customer uses a BOSCH solution with Infortrend storage as the initial proposed package.
 - The other storage vendor has a reliability issue with BOSCH VRM.
 - After customer replaced with 20+ units of Promise VessRAID 1000 iSCSI, the problem solved.
- **Configuration**
 - Camera Qty: 200+
 - Image resolution: 720x480@D1
 - Retention Period: 30 days
 - NVR: Each manages up to 32 cameras, rewrite pattern
 - Estimated Storage Required : 300TB with each backup server



Marketing Presence

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2013 Intel IDF San Fransico



2013 IBC Holland



2013 Computex Taipei



2013 CeBIT in Hannover Germany

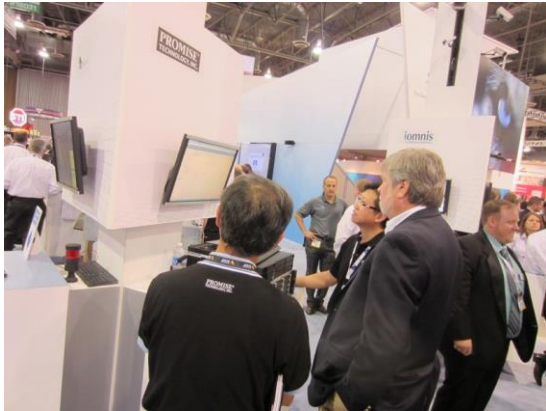


2013 NAB Show in Las Vegas



2013 IFSEC in Birmingham, UK

Marketing Presence



ISC West/ USA



IFSEC/UK



NAB/ USA



Taiwan Solution Day



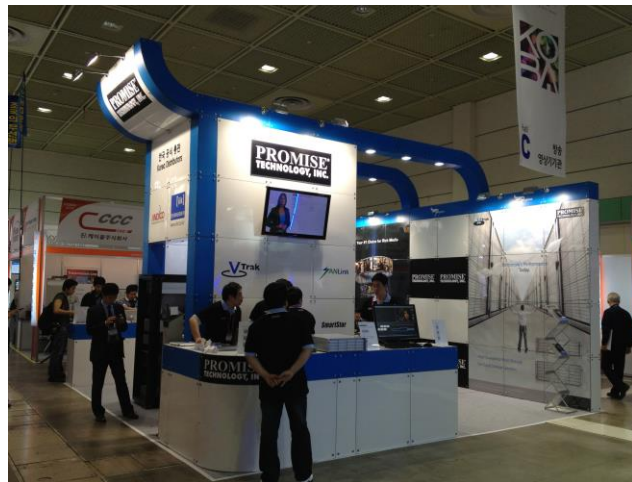
Korea Solution Day



Japan Solution Day

Marketing Presence

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2013 KOBA Show in Korea



Blackmagic Roadshow in Japan



NAB Show in Las Vegas



Intel Storage Forum in Taipei



Intel IDF in BJ



Adobe Road Show

Partner's Words



“The high level of storage integration and energy-efficient performance of the Intel Xeon processor C5500/3500 provides a strong foundation for storage systems to manage the explosive growth of data. The performance and storage capabilities of this family of processors enables PROMISE to deliver faster processing and greater availability in a dense form factor.”

David Tuhy, general manager, Intel Storage Group

“Intel is excited about the superior performance and simplicity Thunderbolt technology and PROMISE’s Pegasus family of products will bring to consumers and media professionals trying to keep up with the explosion of digital media”

Jason Ziller

*Director, Thunderbolt Planning and Marketing,
Intel Corporation*

“Thunderbolt sets new standards for speed, flexibility and expansion. The new Pegasus RAID with Thunderbolt delivers pro-level performance in an affordable package, perfect for use on location or in the studio.”

Ron Okamoto

Apple's vice president of Worldwide Developer Relations

“As a leading provider of top notch security solutions, Sony is pleased to partner PROMISE Technology in offering to our customers, the iSCSI storage solutions, which are a perfect complement to our comprehensive range of security solutions.”

Yoshikazu Hirano

General Manager of Security Solutions Asia Pacific, SONY

Summary – Promise's competitive advantages



- 4 new products launched in 2013
 - Surveillance: VessA
 - R&M: Vtrak A class; Pegasus 2 (4K ready)
 - Cloud: FileCruiser
- New geography / customer acquisition
 - South America / Canada / Mid East / Africa / Russia
 - New ODM customers acquisition
- New ISV alliances
 - Asset management in R&M market
 - Backup applications in R&M and Cloud market
 - VMS certifications
 - Big Data partners engagement
- Solution team setup

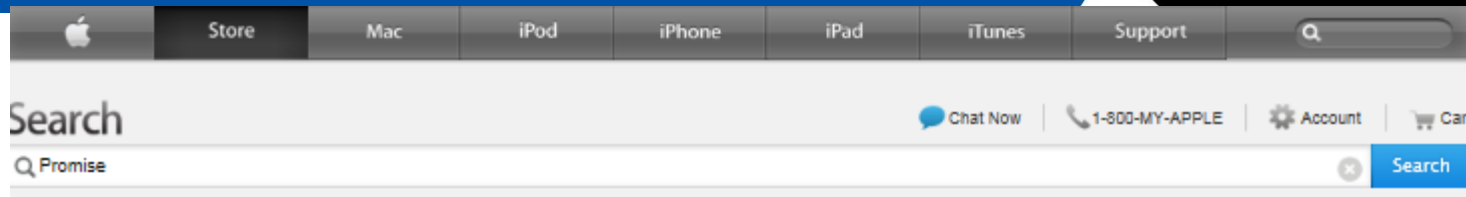
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Promise in Apple store



Promise 2TB SATA Drive Module
\$799.00

Free Shipping | Available to ship: Within 24 hours
All Mac Storage Products ▶



PROMISE Pegasus2 R Series 2TB SATA...
\$229.00

Free Shipping | Available to ship: Within 24 hours
All Mac Storage Products ▶



Promise VTrak x30 Series 3U Expansion...
\$1,399.00

Free Shipping | Available to ship: Within 24 hours
All Mac Storage Products ▶



PROMISE VTrak x30 Series 180TB (60x...
\$69,999.00

Free Shipping | Available to ship: 1-2 weeks
All Mac Storage Products ▶



PROMISE VTrak x30 Series 64TB (16 by...
\$29,999.00

Free Shipping | Available to ship: Within 24 hours
All Mac Server Accessories ▶



PROMISE VTrak x30 Series 3TB SAS Dri...
\$899.00

Free Shipping | Available to ship: Within 24 hours
All Mac Storage Products ▶



4K Opportunity (Con't)

■ Unit: Millions

Supplier	2013	2014	Products
AUO	0.3	5	42", 50", 55", 65"
BOE	0	1	49", 55"
ChinaStar	0.4	2	49", 55"
Innolux	1.8	12	39", 40", 42", 50", 58", 65", 85"
LG Display	0.1	2	49", 55", 65", 84"
Samsung	0.1	4	40", 48", 55", 65", 85", 98"
Sharp	0.02	0.5	60", 70"
Total	2.72	26.5	

