



Chris Lin
Chairman and President

Aug 13, 2015

Company Profile

Product & Technology

Growth Driver

Future Development

Financial Performance

- Established in Nov. 15th , 2004
- Paid-In Capital: NTD 316M (USD 9.93M)
- Number of Employees: 46
- Headquarter: No.15, Industry East 4th Rd., Hsinchu Science Park
- Business Model: Fabless IC Company
- Product Lineup:
 - Remote Server Management
 - PC /AV Extension
 - Desktop Virtualization





Milestone



Jul. AST2500 / 1520 / 3200 SoC Sample Ready

2015

Apr. Listed

2014

Dec. Forbes Asia Best Under A Billion Awards
Dec. Announced 6th Generation Server Management SoC AST2500

2013

Sep. Received funding from Intel Capital

2012

May. Listed on Taiwan OTC Stock Market
Jul. Announced 5th Generation Server Management SoC AST2400 / 1400 / 1250
Oct. Announced 1st Generation RemoteFX SoC

2011

Jun. Received 2009 Computex Taipei Best Choice Award - AST1500

2010

Jul. Announced 4th Generation Server Management Soc AST2300 / 1300 / 1050

2009

Jan. Received ISO9001-2000 Certification
Jul. Announced 2nd Generation of Server Management SoC AST2100 / 2050 / 1100

2008

Oct. Received Deloitte Technology Fast APAC500 Award (Ranked No.37)
Dec. Announced 3rd Generation of Server Management AST2200 / 2150

2007

2006

Jan. Adopt by Sun Micro
Mar. Delivered the 1st Mass Production Shipment

2005

Jan. Strategic alliance with Quanta Computer Inc. (QCI)
Oct. Announced 1st Generation of Server Management SoC AST2000 / 1000

Sep. Achieved Quarterly Financial Break-even
Nov. Received SBIR funding from Ministry of Economic

2004

Nov. Incorporation

Management Team



Title	Name	On Board	Education	Other Position	Years of Experience
President	Chris Lin	Nov.15 th , 2004	<ul style="list-style-type: none"> • Master, Electrical Engineering, NTU • EMBA, NCTU • President, XGI • VP / Multimedia Product Division, SIS 	<ul style="list-style-type: none"> • Director, Fung-Hwa Investment Inc. • Director, Sheng-Hwa Investment Inc. 	25
Vice President / Sales and Marketing Dept.	Luke Chen	Oct. 3 rd , 2005	<ul style="list-style-type: none"> • EMBA, NCCU • Director / Strategy Marketing Dept., SIS 	None	24
Vice President / Product and Technology Dept.	Hung-Ju Huang	Nov.15 th , 2004	<ul style="list-style-type: none"> • BS/EE, MS/EE, NCKU • Director / Engineering, XGI • Senior Manager / Engineering Dept., SIS 	None	22
Manager / Finance Dept.	Tina Chiu	Apr.9 th , 2007	<ul style="list-style-type: none"> • Accounting, FCU • Accounting Administrator, HON HAI PRECISION IND. 	None	18
Procurement Manager / Finance and Admin. Dept.	Selena Luo	Apr. 3 rd , 2006	<ul style="list-style-type: none"> • Ming Chuan University Tourism Management Dept. • Sr. Procurement Engineer, SiS • Procurement Manager, XGI 	None	25
Sr. Manager / Quality Control Dept.	Gary Hsu	Dec. 1 st , 2004	<ul style="list-style-type: none"> • Master, Institute of Electrical and Control Engineer, NCTU • Manager, Ene Technology Inc. • Section Manager, SiS 	None	18
Manager / Auditing Office	Peter Yeh	Sep. 13 th , 2010	<ul style="list-style-type: none"> • Bachelor, Department of Accounting, NCKU • Deputy Manager, Logah Technology • Grand Cathay Securities 	None	18

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Product Lineup



AST2000 / AST1000
AST2100 / AST2050 / AST1100
AST2200 / AST2150
AST2300 / AST1300 / AST1050
AST2400 / AST1400 / AST1250
AST2500 / AST2510 / AST2520 / AST2530

40nm LP Process
800MHz CPU
DDR4 SDRAM
PCIe Gen-II
ES: Jun 2014
PS: July 2015

Server
Management

AST1500 / AST1510
AST1600
AST1520 / AST1525

40nm LP Process
4Kx2K Support
Multi-Screen TV Wall
1GHz CPU
DDR4 SDRAM
ES: Jun 2014
PS: July 2015

PC/AV
Extension

AST3100
AST3200

Desktop
Virtualization

40nm LP Process
Microsoft RemoteFX 8.0
Citrix HDX Ready
1GHz CPU
DDR4 SDRAM
PCIe Gen-II
ES: Jun 2014
PS: July 2015

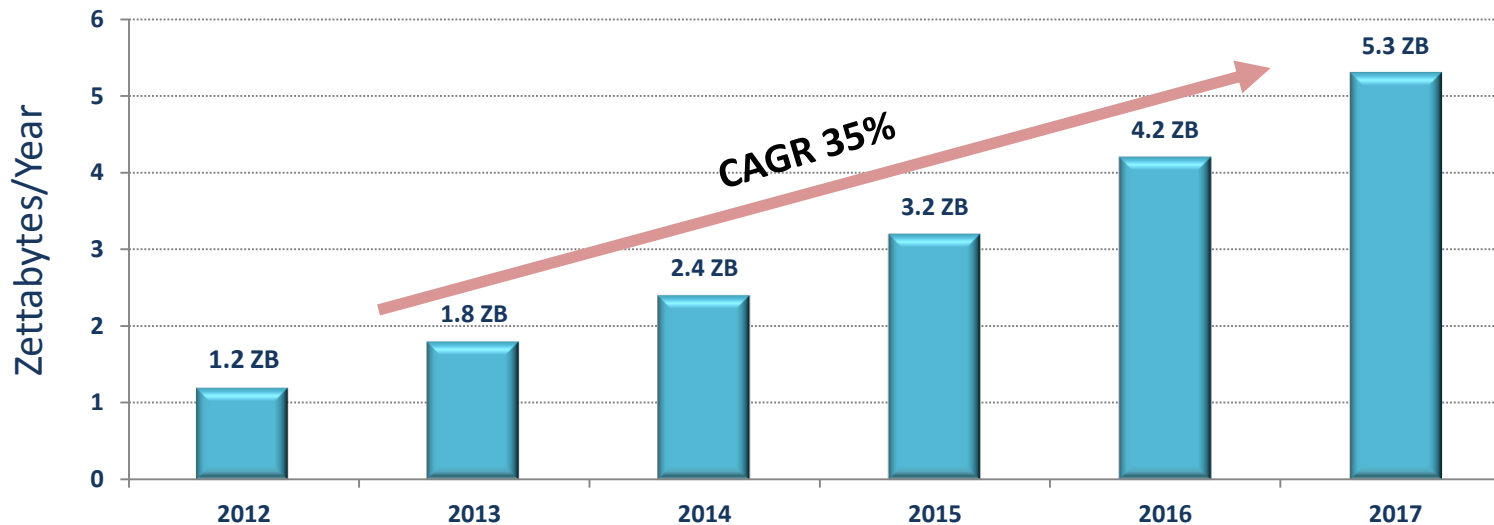
ASPEED

Remote Server Management

- Steadily grow in server management market
 - 2014 WW server shipment: approx. 10M
 - Approx. 30% for cloud server shipment
 - 35% CAGR for cloud servers workloads
- Major providers worldwide:
 - ASPEED Technology, RENESAS, Emulex, Nuvoton
 - **ASPEED Technology: Worldwide No. 1 provider**



Cloud Data Center Workload



Data source: Cisco Global Cloud Index (GCI)

WW Server Management Vendor

WW Remote Server Management Vendor Quantity - TAM

Company	Q1/15		Q1/14		Q1/15 vs.Q1/14 Growth (%)
	Shipments	Market Share (%)	Shipments	Market Share (%)	
HP	534,559	20	534,652	22.6	0
Dell	507,433	19	464,141	19.7	9.3
Lenovo	220,379	8.3	64,970	2.8	239.2
Huawei	105,803	4	85,919	3.6	23.1
Inspur Electronics	91,847	3.4	80,929	3.4	13.5
Others	1,209,319	45.3	1,131,102	47.9	6.9
Total	2,669,340	100	2,361,712	100	13

Source: Gartner May, 2015

* Lenovo's Q414 results include IBM x86 sales. IBM Q414 results include only non x86 server

** In the first quarter of 2015, the regions with the highest growth rates in terms of unit shipments were North America (22.9 %), the Middle East and Africa (20.8 %), and Asia/Pacific (13.6 %).

WW Server Management Vendor **ASPEED**

WW Remote Server Management Vendor Quantity - SAM

Company	Q1/15		Q1/14		Q1/15 vs.Q1/14 Growth (%)
	Shipments	Market Share (%)	Shipments	Market Share (%)	
Dell	27,000	1.5	464,141	26.7	9.3
Lenovo	64,970	3.2	64,970	3.7	239.2
Inspur Electronics	80,929	4.0	80,929	4.8	10.5
Others	1,209,319	59.6	1,131,102	64.8	6.9
Total	2,028,978	100	1,741,142	100	16.5

ASPEED
Q1/15: **42%**
of SAM

ASPEED
Q1/14: **34%**
of SAM

Source: Gartner May, 2015

* Lenovo's Q414 results include IBM x86 sales. IBM Q414 results include only non x86 server

** In the first quarter of 2015, the regions with the highest growth rates in terms of unit shipments were North America (22.9 %), the Middle East and Africa (20.8 %), and Asia/Pacific (13.6 %).

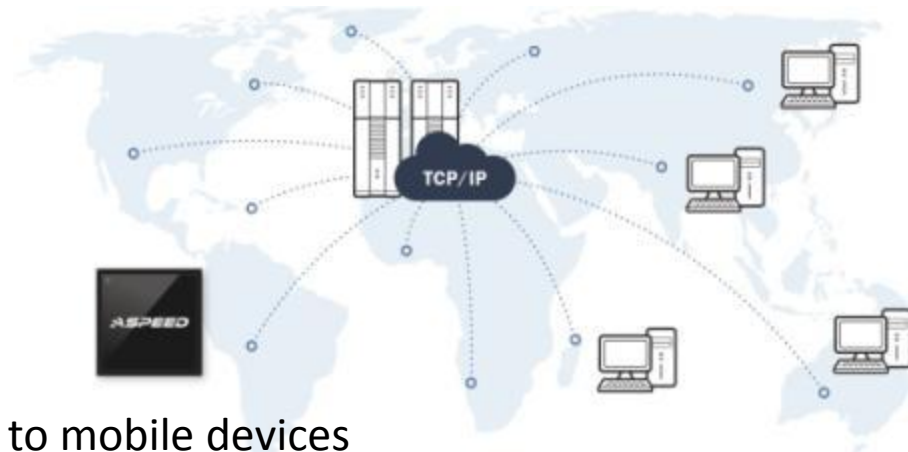
***Served Available Market (SAM): HP & Huawei shipments excluded.

- **Key Features**

- **KVMoIP** (Keyboard-video-mouse over internet protocol)
Hardware device that allows a user to control multiple computer/servers
- **BMC** (Baseboard management controller)
Remote management controller to implement IPMI, SNMP and KVMoIP
- **2D VGA**
VGA chip for the server display, also includes VGA bios and VGA driver

- **Functions**

- Remote activation and management
- Automatic hardware detect
- Provide equipment information
- Server condition monitoring
- Fault warning function; automatic alert to mobile devices
- System health indication; remote system configuration
- Receive alerts; event log; remote assets inventory
- System restore and status management



Our Core Value

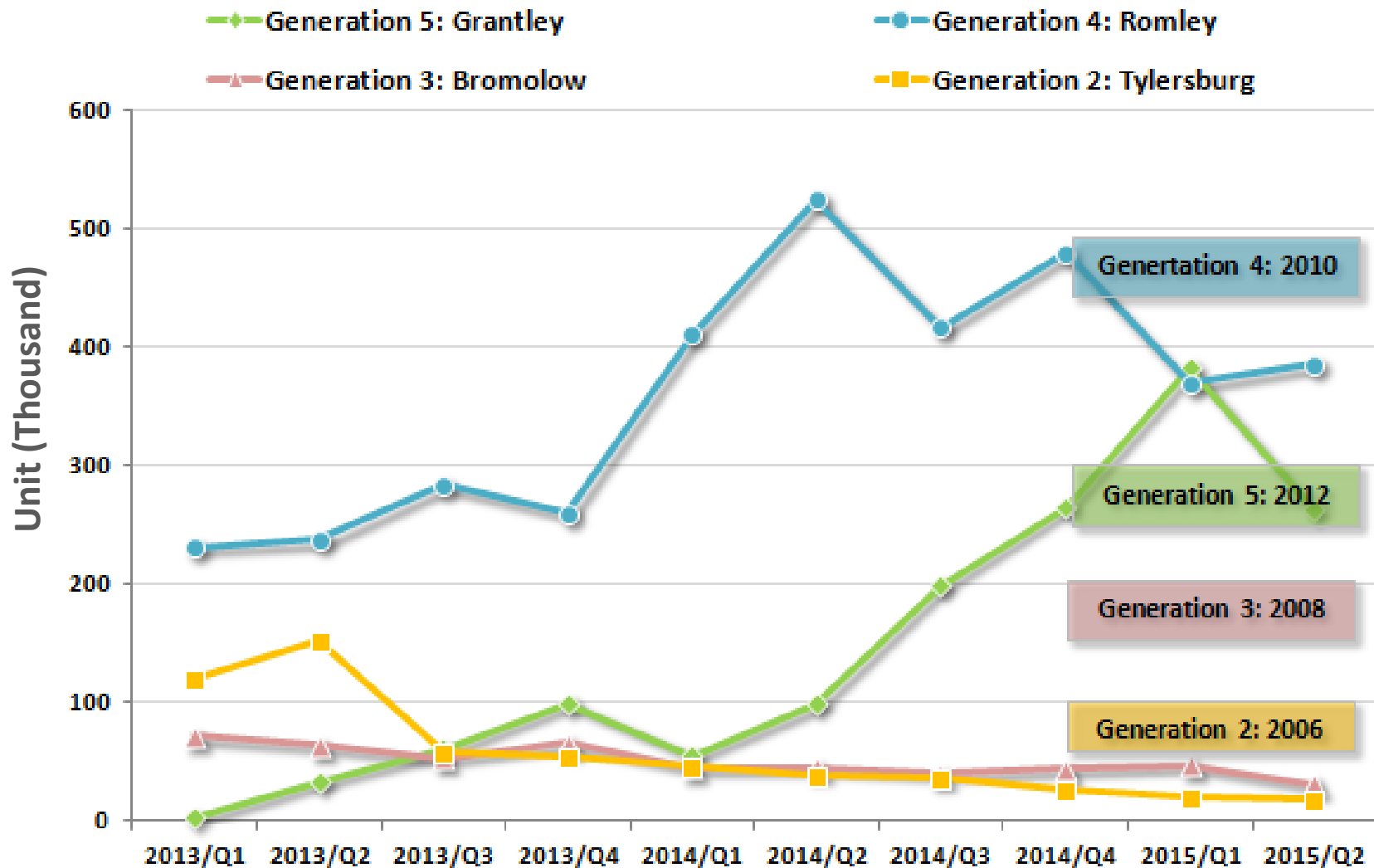


- Highly integration: 2D VGA / BMC / KVMoIP
- Pin for Pin compatibility within same generation: Customers can choose base on their customer needs
- Low power consumption
- Technology ownership: Self-developed technology/ BIOS/Driver with overall R&D control

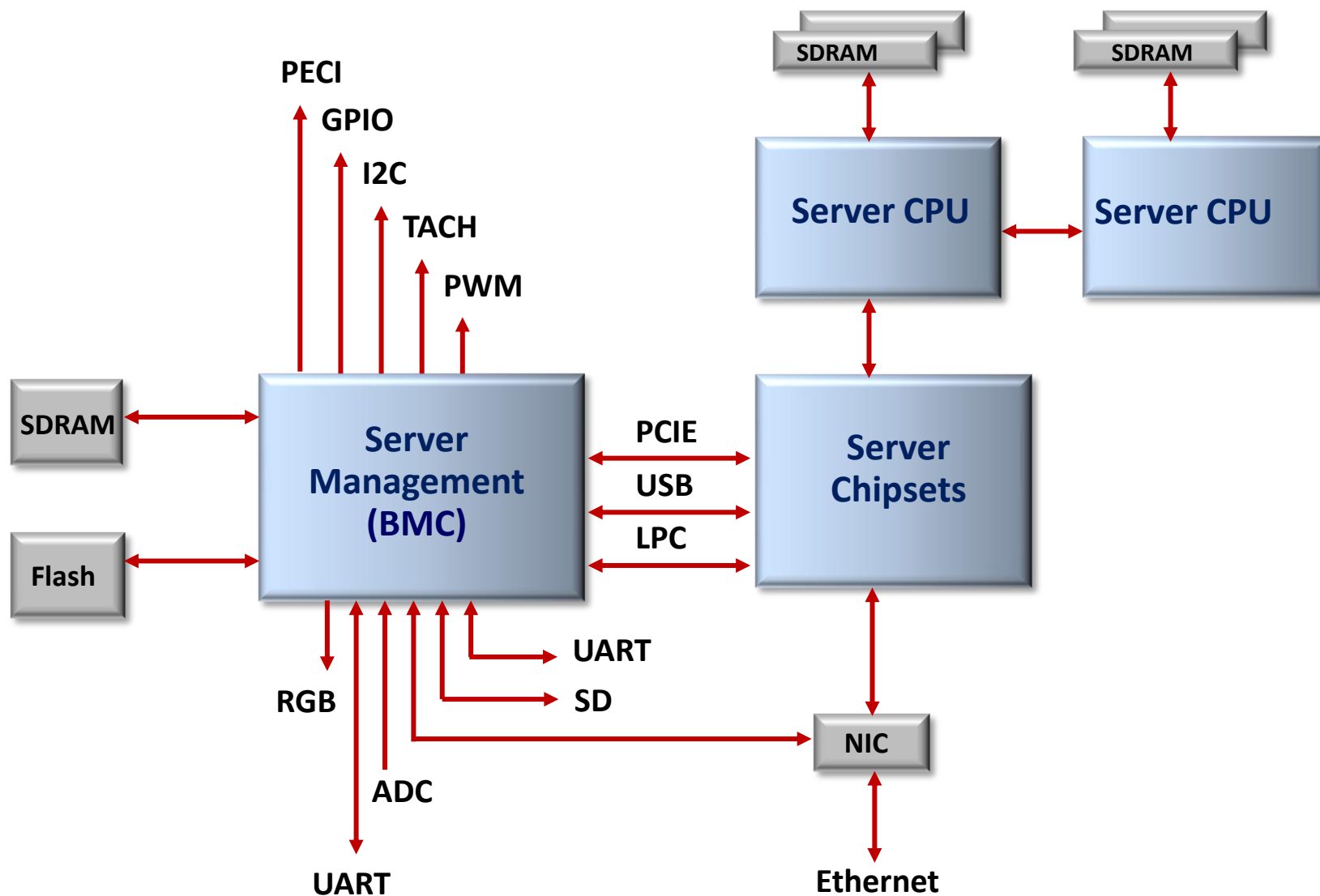


	ASPEED	Emulex	Renesas
2D VGA	V		
KVMoIP	V	V	
BMC	V	V	V

Product Shipment by Generation **ASPEED**



System Architecture

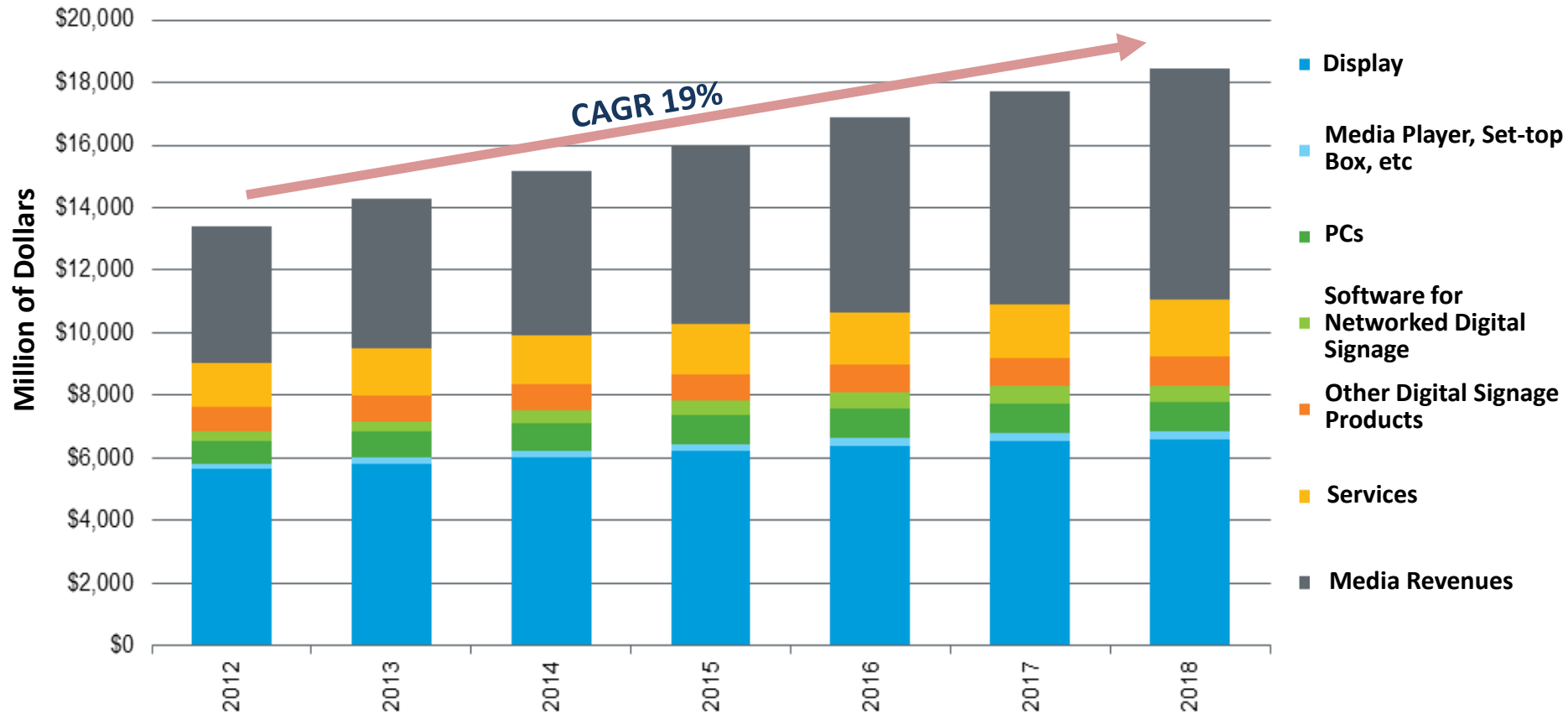


A SPEED



PC/AV Extension

Worldwide Digital Signage & Professional Display Shipment Forecast



Source: IHS, 06/2015

Features & Benefits



- UHD / FHD / HD over IP
- Controllable Extension over IP Matrix: Easy to control any size of video source input/output
- Real-time low latency
- Patented visually lossless compression algorithm to extend 4K2K HDTV Display up to 120M and longer over CAT5
- Total Cost Ownership (TCO): 1/3 of conventional system
- Compatible with all signage software & all video format
- Reduce total system power consumption
- Flexible Deployment



Advantages of UHD over IP

- Scalable, flexible, expanding capabilities even after years of installation
- Supports video walls from 2x2 to 16x16 easily
- Resolution: Use one CAT5E cable to extend 4K2K up to 120M and longer
- Enhance visually lossless compression
- Quick to deployment



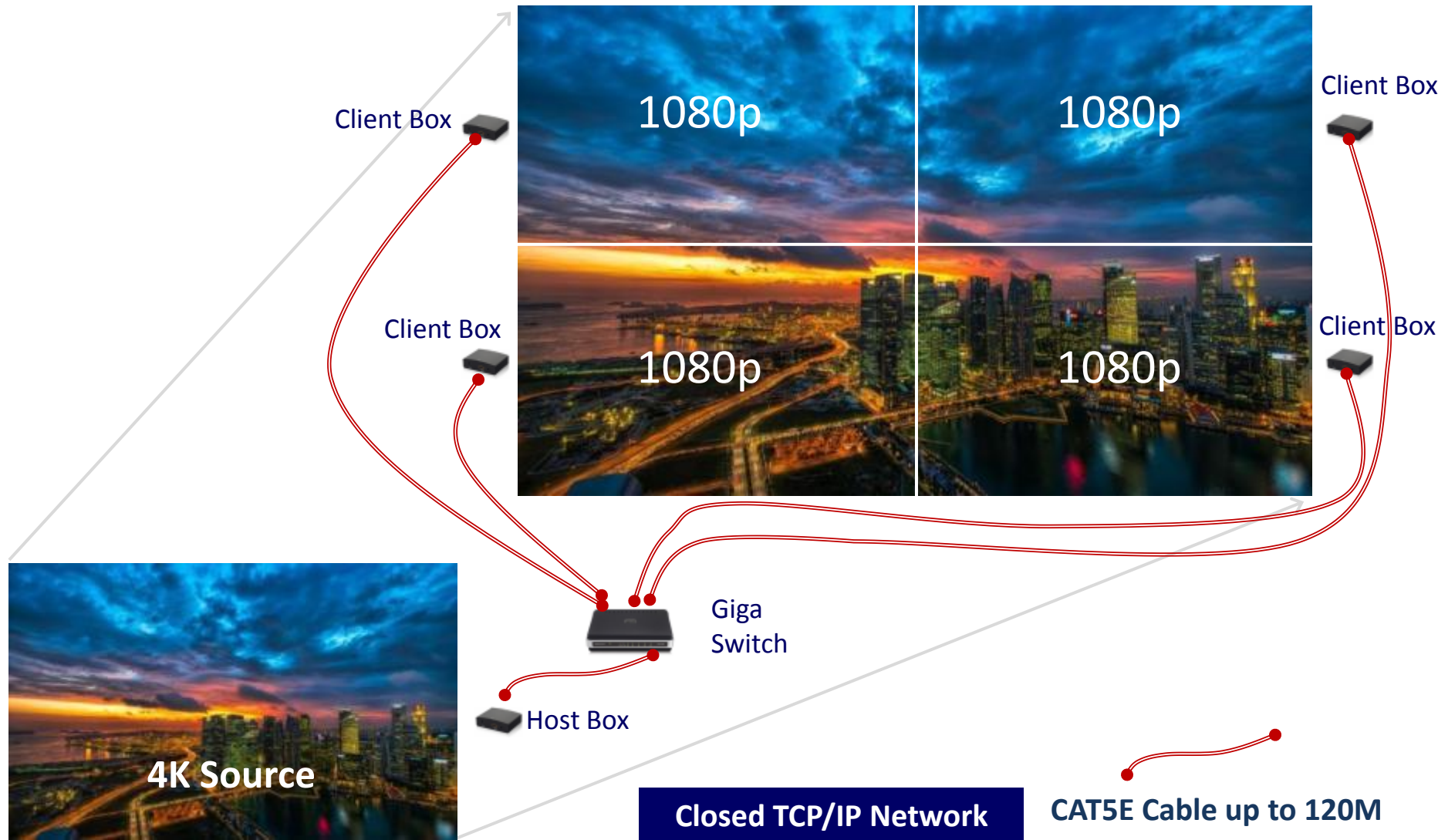
*Visually Lossless
Compression*



Lousy Compression



4K/2K HDTV Video Wall

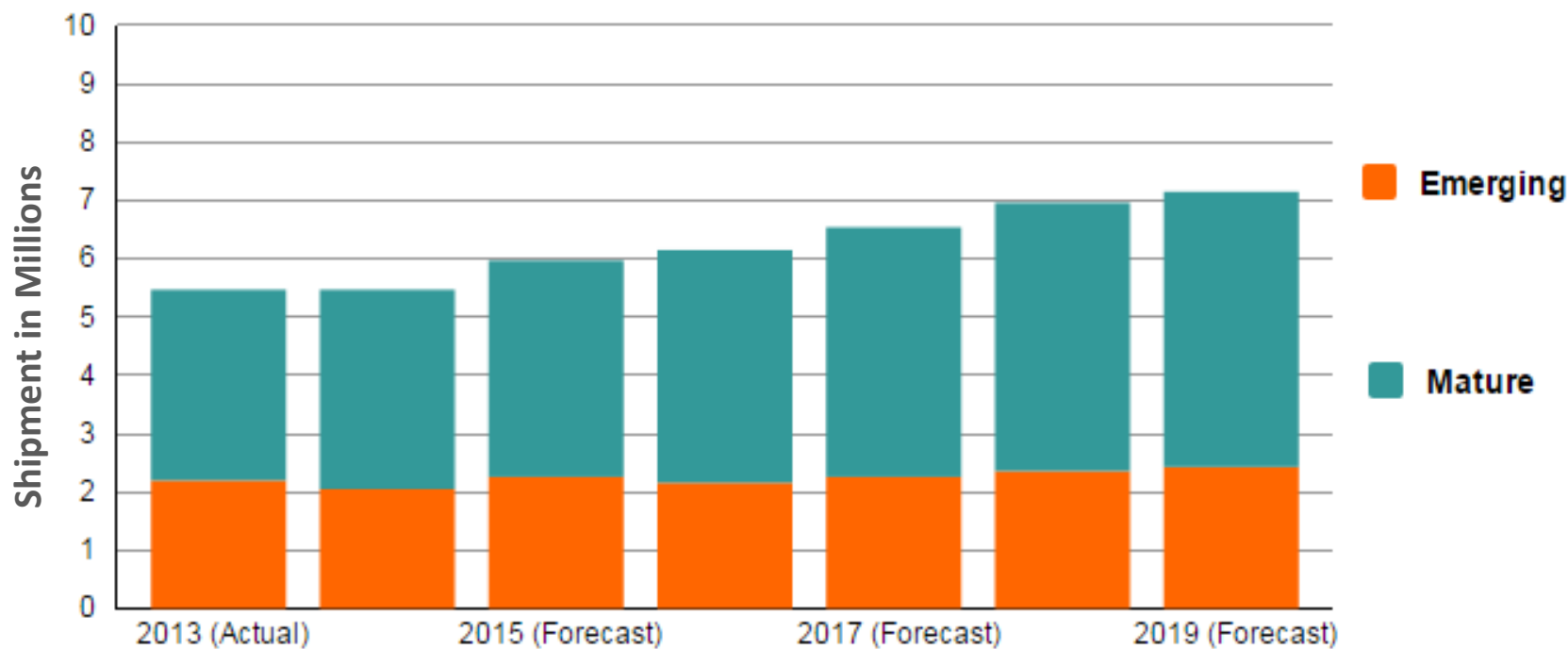


ASPEED



Desktop Virtualization

Worldwide Thin/Terminal Client Unit Shipments, 2013 – 2019 (IDC)



Major virtualization application software suppliers and competitive status:

Supply	Virtualization Software	Protocols	SoC Provider
VMWare	VMWare View	PCoIP	Teradici, TI
Citrix	XenDesktop	HDX	Ncomputing, TI
Microsoft	Hyper V	RPD/RemoteFX	ASPEED, TI

Desktop Virtualization Segment *ASPEED*

- Traditional x86 base Virtualization / Thin Client
 - Dominated by Citrix / VMWare
 - Expensive, annual virtualization fee
 - Hard to replace
- Desktop-as-a-Service (DaaS)
 - Government, public area, school, military
- Desktop Re-direction



Virtual Desktop Infrastructure

- An individual physical server can be divided into multiple (ie. 10~20) isolated virtual desktop computers.
- An individual user is able to access to the server via network connection by adopting a Thin-Client computer or a Zero-Client computer.



Benefits of Desktop Virtualization **ASPEED**

- Total cost ownership
 - MIS maintenance cost
 - H/W, desktop/laptop vs. small box
- Green environment
 - Lower power consumption, save the earth
 - Power consumption: AST3100/AST3200 is around 2W; entire box is under 15W (with 4 USB devices)
 - Desktop PC is generally over 100W
- Deployment
 - Easy to expand the servers, storages and remote desktop users by virtualization
 - Live-move virtual machine among the servers easily
- Enterprise security concern
 - Office worker
 - Specific task worker
 - Contractor offshore worker
 - Workers need to access his app/data from anywhere



ASPEED VDI Processor Features

System Management

Remote system management
Remote firmware upgrade
System configuration

Remote Screen

RDP 8.1/8.0/7.1/7.0 & HDX
Hardware acceleration
4-display extension

Connectivity

10/100/1G Ethernet
WiFi 802.11 a/b/g/n

Power Management

Wake-on-LAN/USB
Standby mode

Storage Support

USB storage redirection
MicroSD card
eMMC

Remote Multimedia

Full HD video playing
Up to 30 FPS
Speaker & microphone



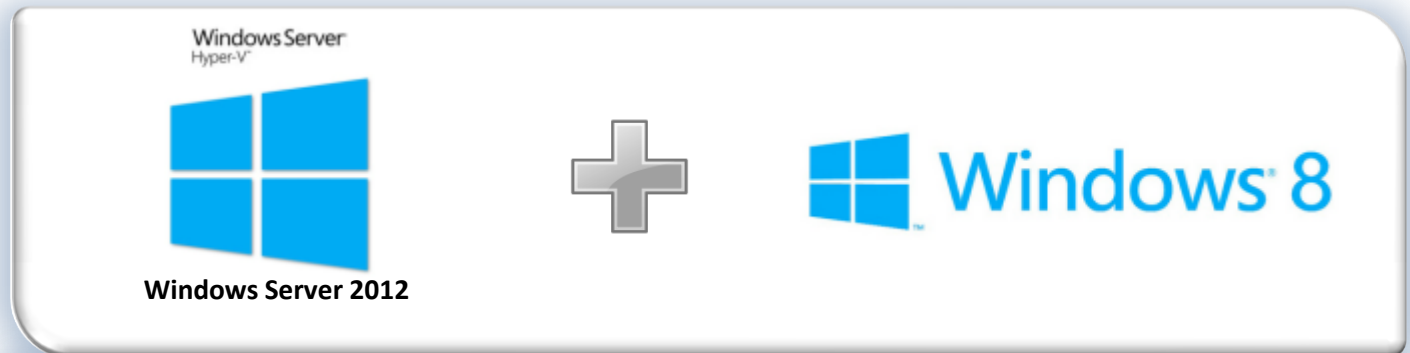
- **Advantages**

- Enhanced from RDP protocol
- Hyper-V is free and embedded in Server 2008 and Server 2012
- RemoFX8 can be over Internet and lower data size
- Delivers full Windows users experience

OS in Server

OS in VM

RemoteFX 8



RemoteFX 7



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Intel's Next Generation Server platform-Grantley ramp-up

- DDR4 price becomes more reasonable in 2015H2
 - Data Center maintain high growth momentum
 - High growth rate in China
 - 2015H2 is optimistic
-

Cloud Data Center High Growth Rate

- Increase in cloud data center workloads at 35% CAGR
 - ASPEED has high market share in cloud data center customers
 - Strong Demand from US and China customer
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Completed Product Lineup

- AV Extension continues to grow steadily at 20% - 30%; new generation IC supports up to 4K2K solution, shipment starts in Q3
- Desktop Virtualization shipment in Q4

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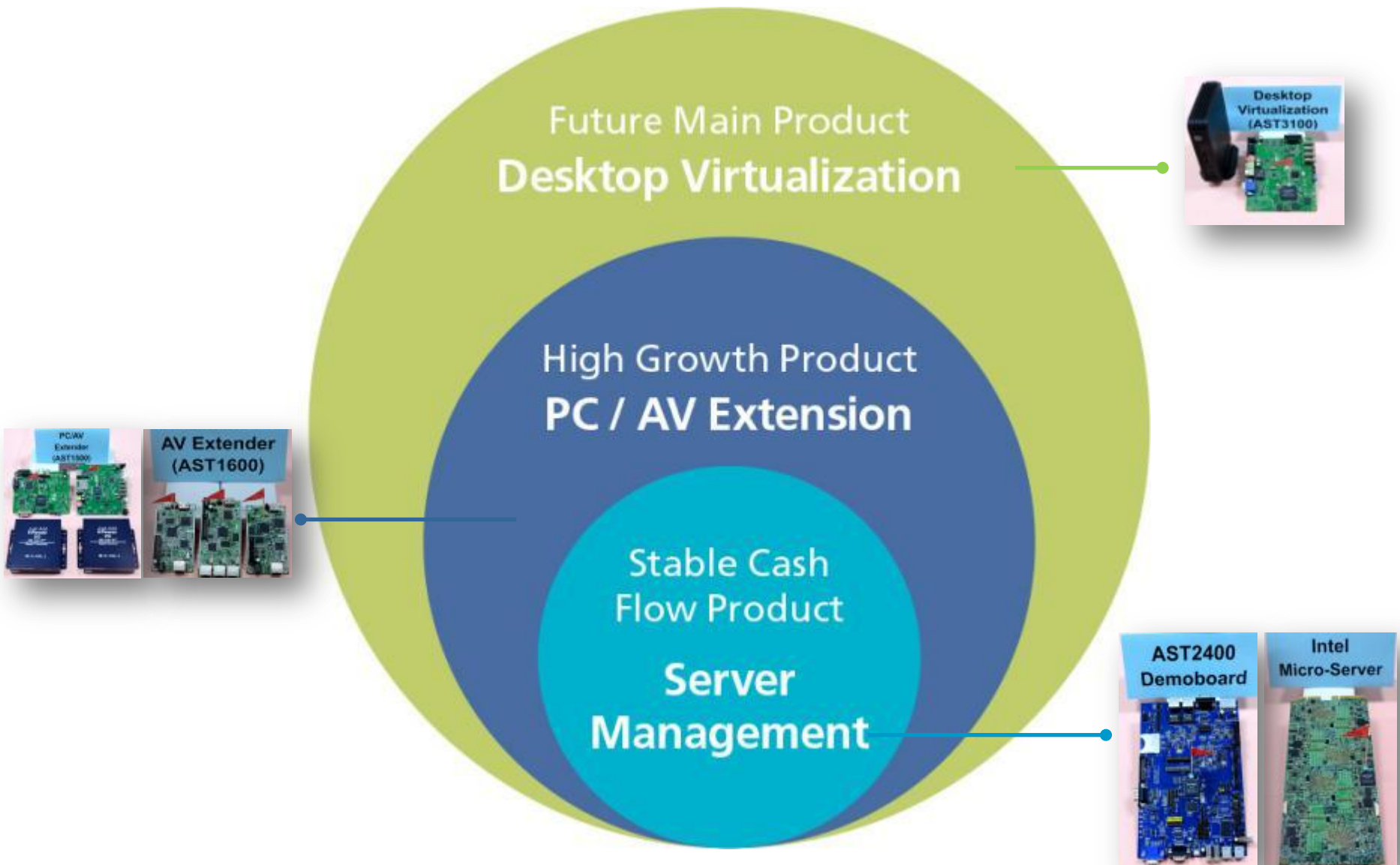
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Future Development



Server Management

- Platform & launch schedule alignments
- Increase brand name customers recognition / market penetration
- Continue to work closely with software company
- Data center continues to grow
- Adopt more advanced process to provide better features, lower power consumption, and lower cost SoC solution
- 2017 Purley generation design-in continues to gain more customers

PC/AV Extension

- Actively expand new market, new customer and new application
- Adopt more advanced process to provide better features, lower power consumption, and lower cost SoC solution
- Supports 4K2K UHD

Desktop Virtualization

- Co-develop with Microsoft for next generation RemoteFX 8.0 SoC
- Co-marketing with Microsoft®
- Continue to work closely with software partner
- Adopt more advanced process in order to provide better features, lower power consumption, and lower cost SoC solution

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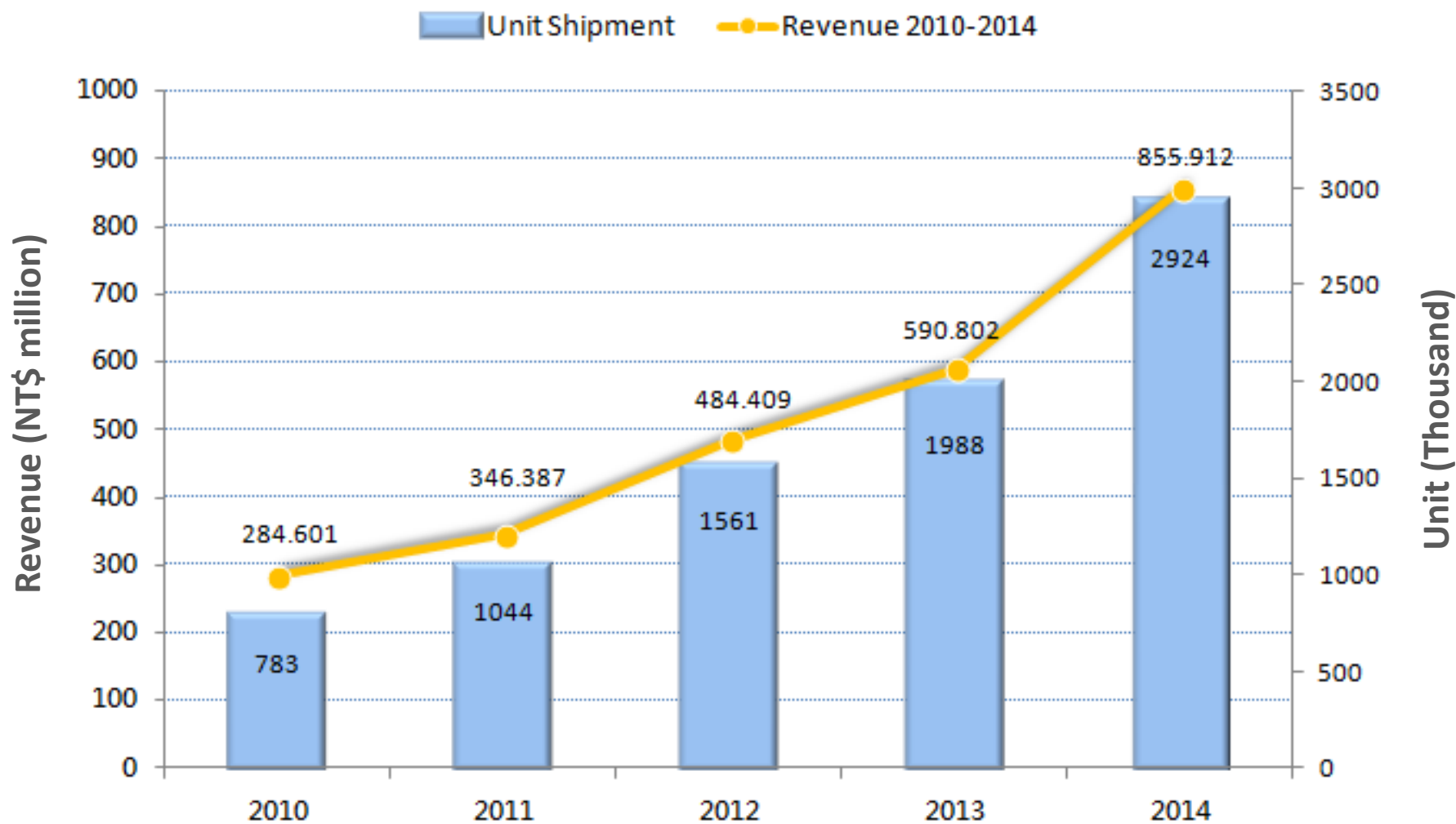
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Financial Performance

Revenue & Shipment Growth



2015H1 Sales & Profits



Unit : NTD 1,000	2014H1	2015H1	
	Amount	Amount	YoY
Sales Revenue	406,519	448,664	10.37%
Net Operating Profit	145,190	165,610	14.06%
Pre-Tax Profit	146,702	163,010	11.12%
Net Income	126,806	142,117	12.07%
EPS	4.84	5.42	11.98%

Key Indices



Unit : NTD 1,000	2014H1	2015H1	
	Amount	Amount	YoY
Cash	690,597	861,039	24.68%
Account Receivable	162,186	163,278	0.67%
Inventory	47,631	43,926	-7.78%
Debt	-	-	-
Shipment Qty (pcs)	1,351	1,569	16.14%

Monthly Sales



Unit : NTD 1,000	2014	2015	YoY Difference (%)
January	60,384	100,432	66.32%
February	55,190	75,686	37.14%
March	62,431	66,320	6.23%
April	70,316	72,242	2.74%
May	80,936	62,497	-22.78%
June	77,263	71,486	-7.48%
July	77,278	95,807	23.98%
August	67,417	—	—
September	67,540	—	—
October	70,177	—	—
November	82,308	—	—
December	84,672	—	—
Total	855,912	—	—
Jan. - July	483,798	544,470	12.54%

Dividend Policy

	2008	2009	2010	2011	2012	2013	2014
Cash dividend (F)	1.42	2.29	3.00	4.00	5.00	5.50	7.00
Stock dividend (F)	2.00	2.00	1.42	0.00	0.00	0.00	2.00
Dividend form capital reserves (F)	0.30	0.30	0.60	0.22	0.20	1.00	0.00
Total Dividend	3.72	4.59	5.02	4.22	5.20	6.50	9.00
EPS	4.86	5.64	5.66	4.77	6.50	7.40	10.72

Earning distributions:

- Employee bonus 10%~15%
- Directors bonus no higher than 3%
- With respect to the earnings available for distribution plus the previously cumulative undistributed retained earnings, the Board of Directors may present a proposal to distribute to the Shareholders by way of dividends at the annual general meeting for approval. Having considered the operational, financial and tax factors, including the Company being in the growing stage during the business life cycle and the future expansion projects, any remaining profits may be distributed in the form of cash dividends and/or shares, and the cash dividends shall be no less than 10% of such remaining profits to be distributed.



Thank you