

IGRS: From Standard to Industry Alliance

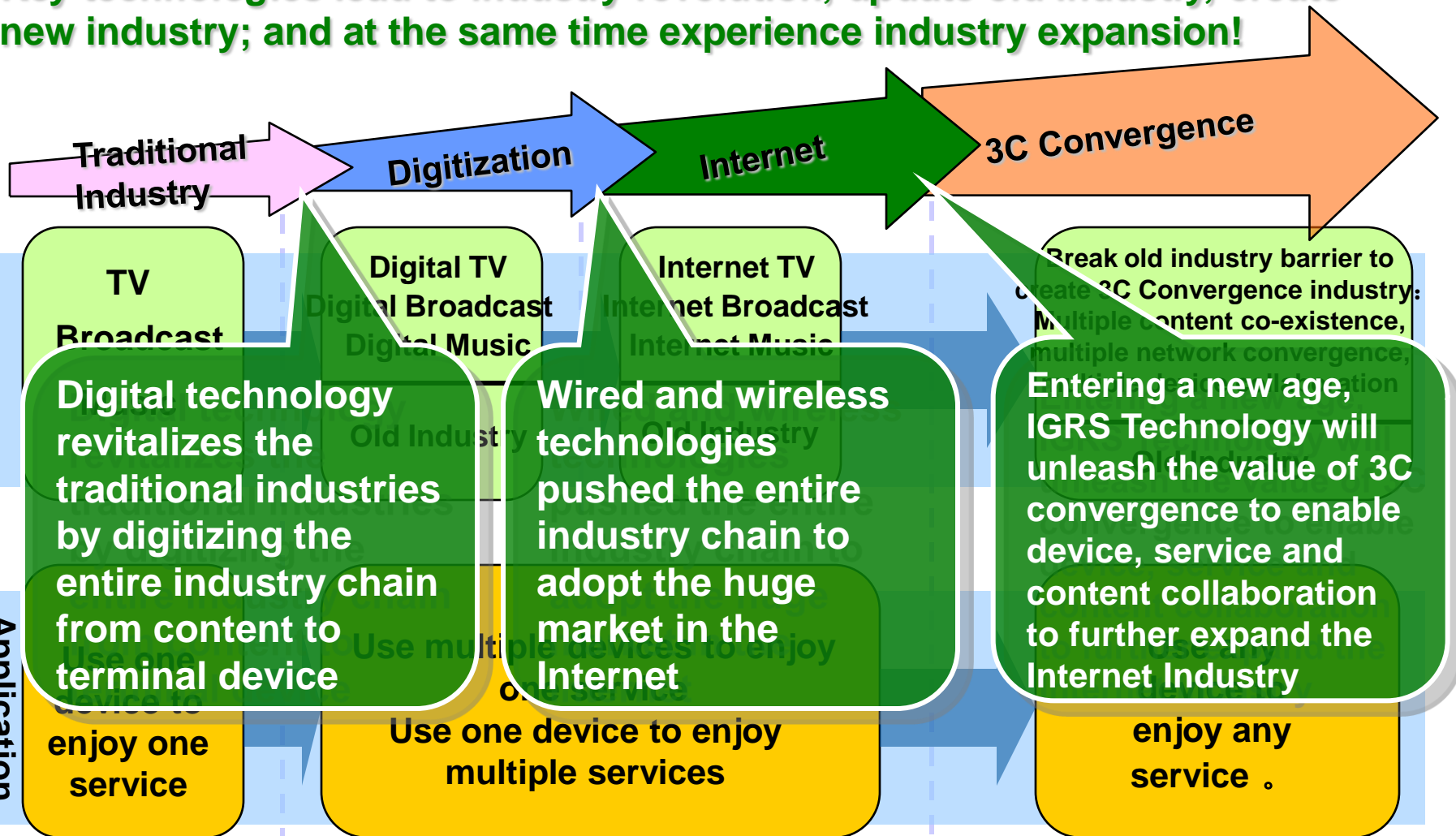
Chongying Cao
IGRS Engineering Lab Ltd.
www.igrslab.com

Content

- Background
- IGRS Technologies
- Standardization Progress
- Summary

3C Industry Development History and Trend

Key technologies lead to industry revolution; update old industry, create new industry; and at the same time experience industry expansion!



Example: Chinese TV Industry Development History & Trend

Next generation of IGRS TV will interconnects TV with PC, storage device and the Internet. Its impact to the TV industry will surpass the revolution brought by the internet to PC industry. IGRS technologies, by bringing more values to the TV industry, will also greatly accelerate the development of Internet content and other value-added application services delivered to HDTV

Future IGRS TV



Color Flat Panel TV



Color DLP TV



Color CRT TV



Black-white CRT TV



Industry value = device value

Industry value = device value + traditional content service value (TV programs)

The development of 3C Convergence content service market (internet content, digital home control, mobile value-added service) will outgrow the development of device market (several times of the device value)

Value system

IGRS Confidential

IGRS: Power 3C Convergence Industry



IGRS Working Group
Formed on July 17, 2003

1. IGRS — Intelligent Grouping & Resource Sharing

2. Established by PRC MII

lenovo 联想

TCL 集团股份有限公司
TCL CORPORATION

Hisense 海信

KONKA

GreatWall 长城



Our Solution: IGRS Standard Technology

Home

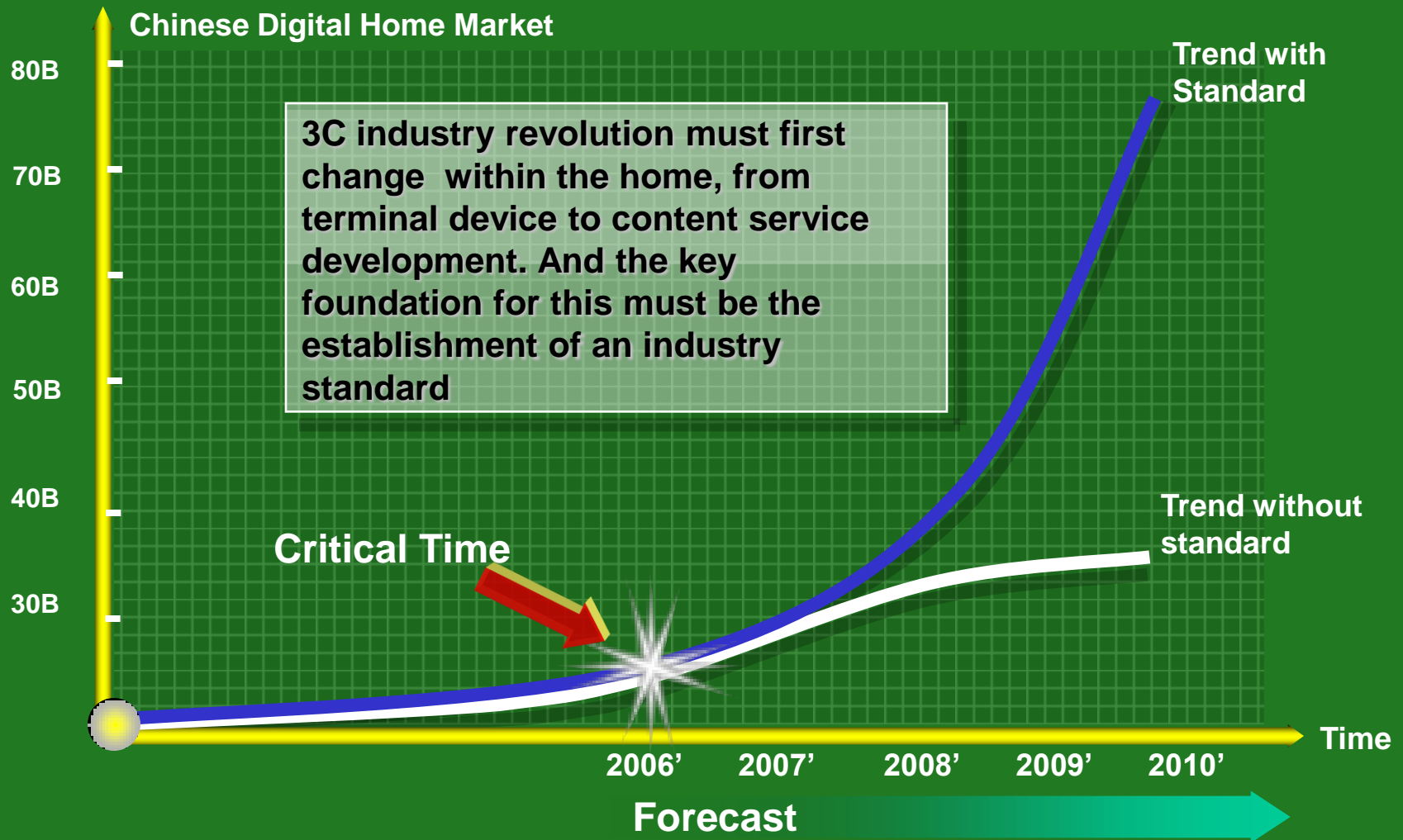
Intelligent Grouping and Resource Sharing (IGRS) Standard defines an advanced message and data-based exchange technology framework and interface specification for the next generation networked information devices, that includes communication security and content protection mechanisms.

It enables 3C devices to achieve intelligent grouping, resource sharing and service collaboration and to construct a brand new network framework consists of “3C devices + network operation + content applications”, to create a positive profit generation model for device manufacturers, network operators and content/application providers alike, and to deliver high quality information services and entertainment to end users.

Content

Public

IGRS Accelerates 3C Industry Growth



International Efforts in 3C Standard Development

Global 3C Standards

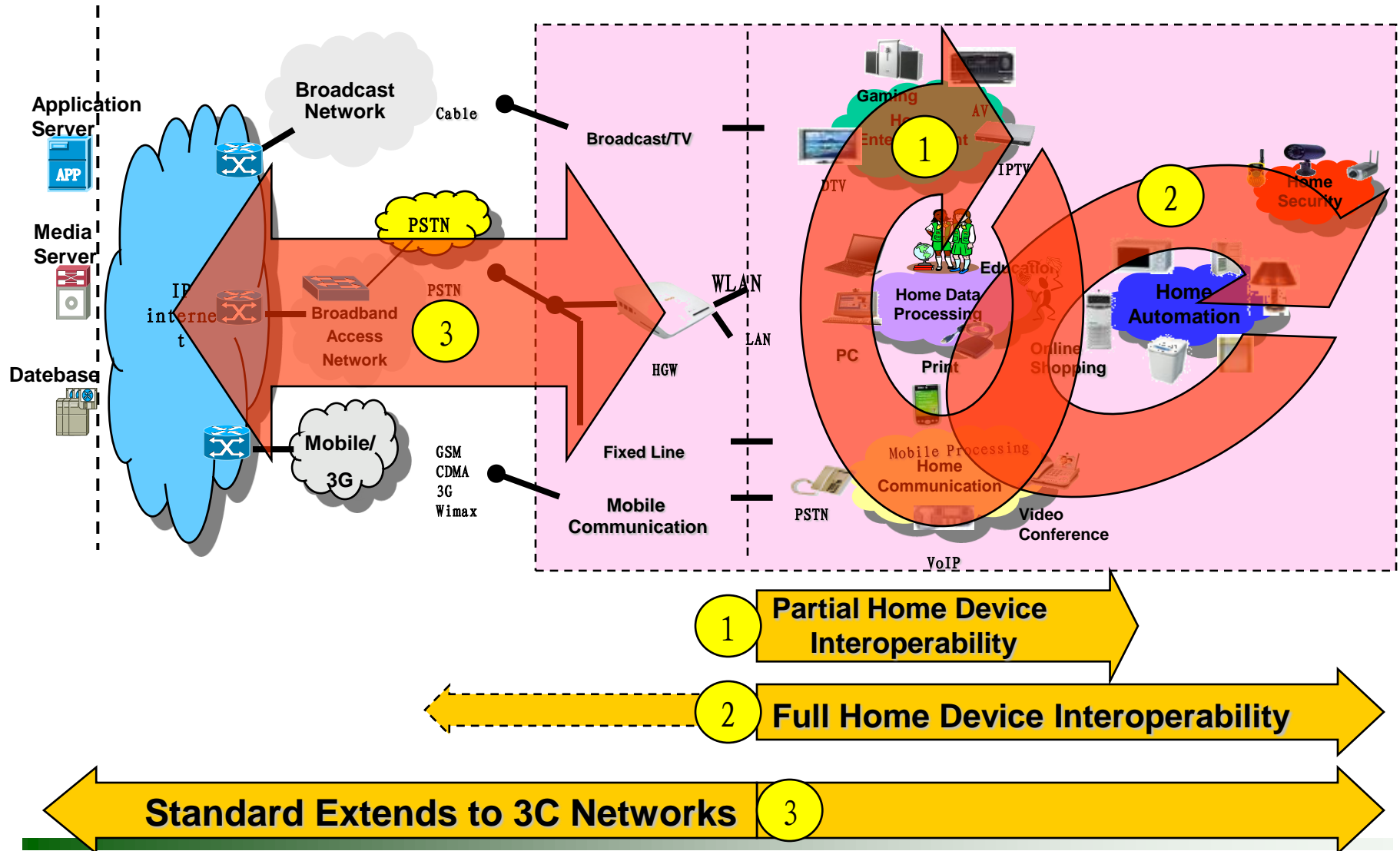


In March 2007, IGRS standards passed Committee Draft (CD) voting to become Final Committee Draft (FCD). It is in the leading position among standards in the similar categories within ISO/IEC

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IGRS Standard in Future Digital Home



Core IGRS Framework

Intelligent Grouping

- Link layer adaptation
- Network layer self-adapting
- Device ID and discovery
- Device message routing

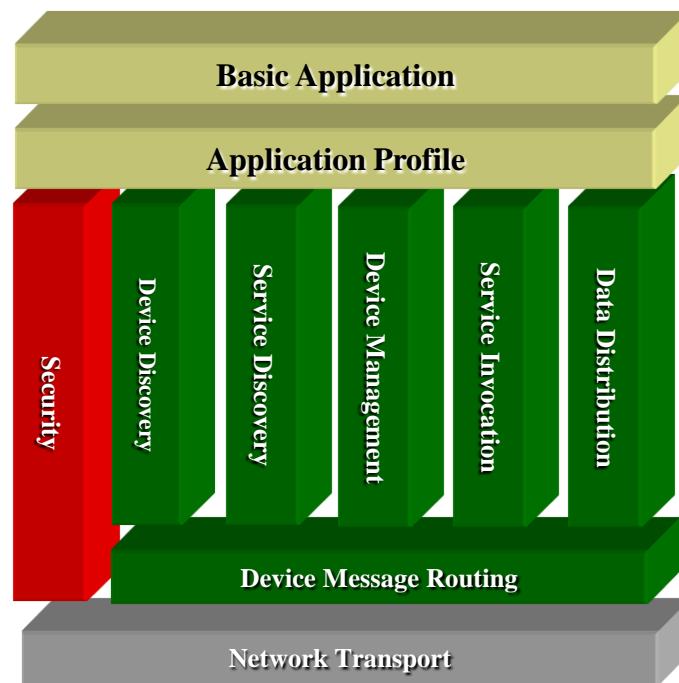
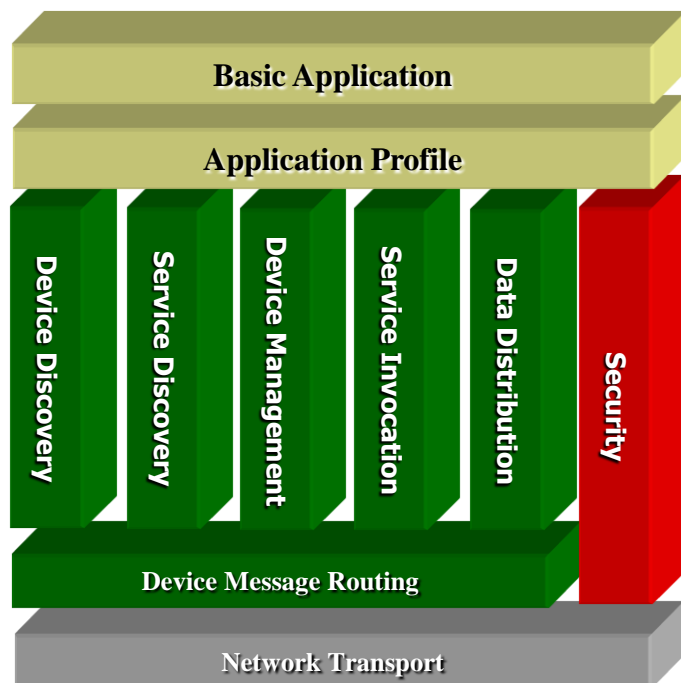
Resource Sharing

- Device configuration and management
- Resource discovery and sharing
- Event notification

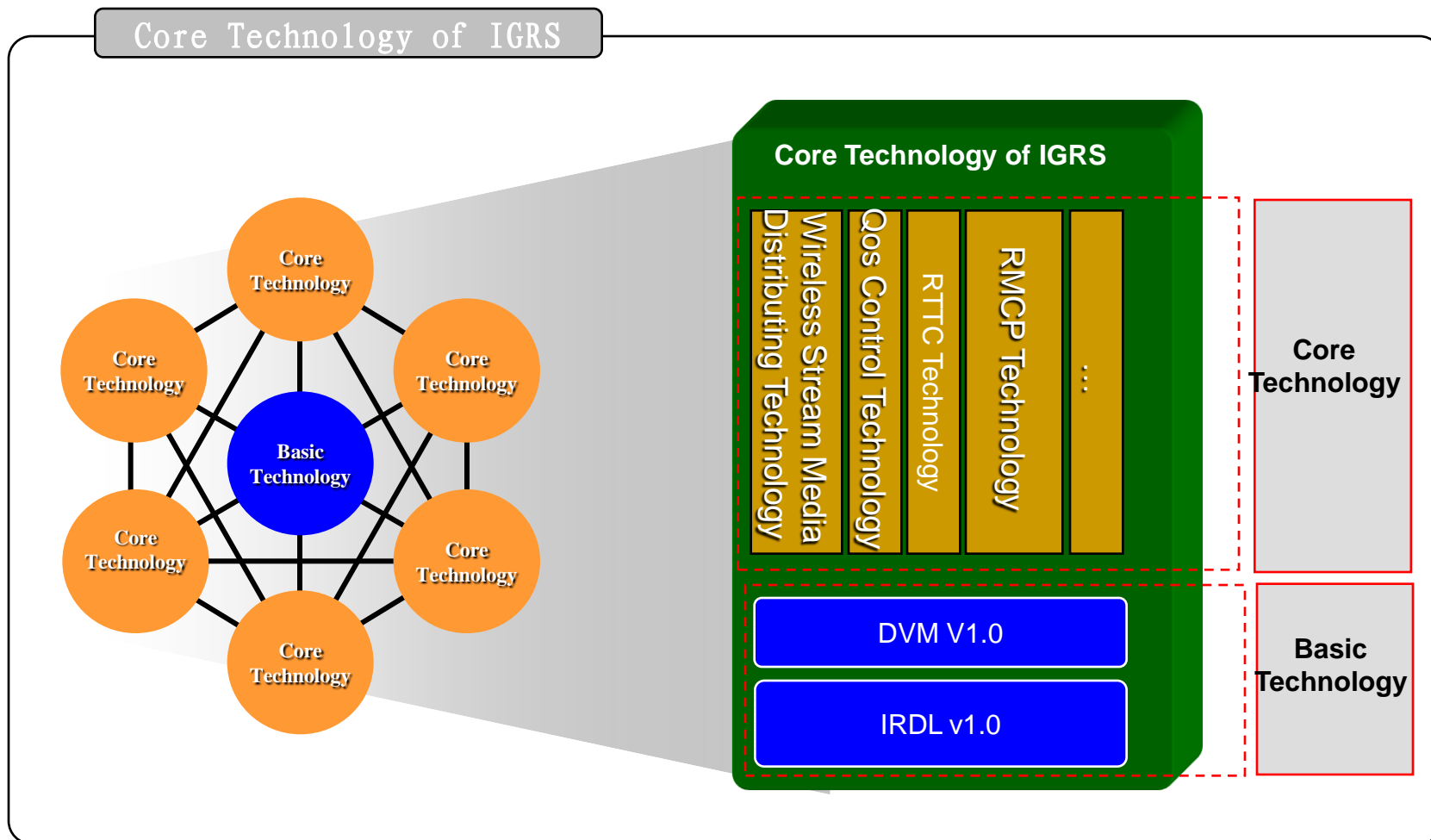
Service Collaboration

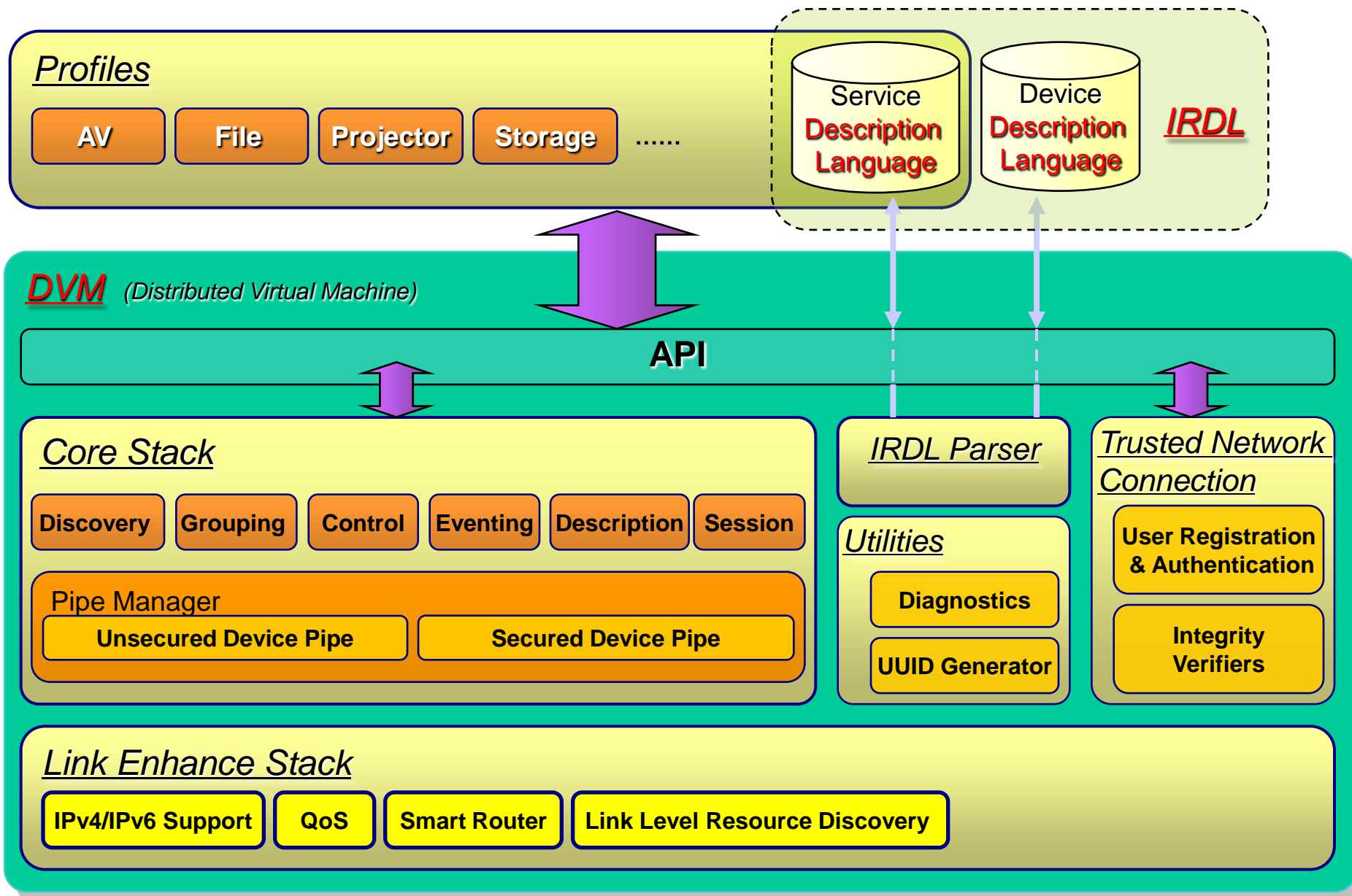
- Application profile
- Service collaboration

Security verification system: based on user id, service/resource access rights verification

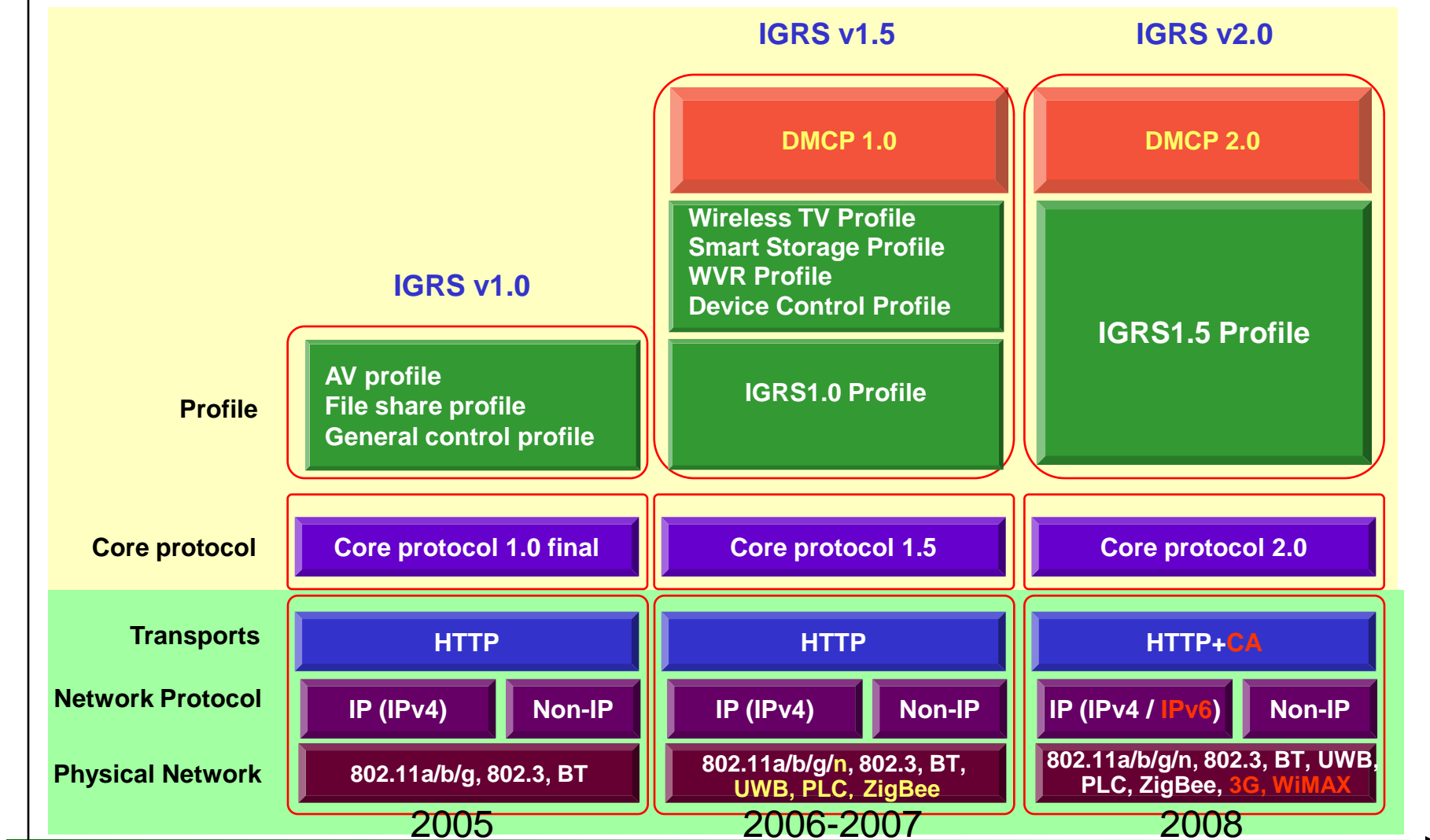


IGRS Technology System

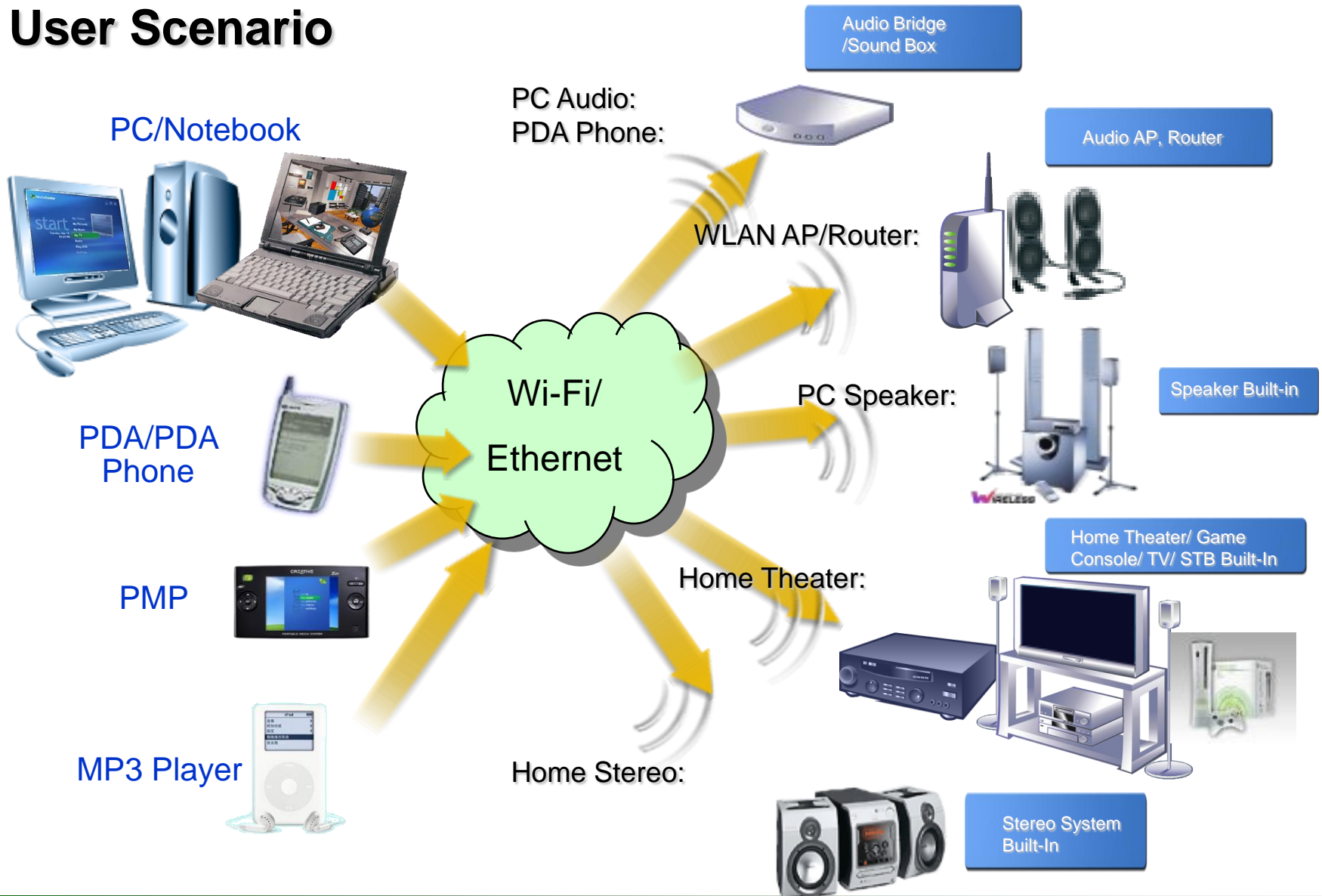




IGRS Standard Roadmap



User Scenario



Key Innovations in IGRS Standard Technology

Multi-platform support

Multi-application profile support

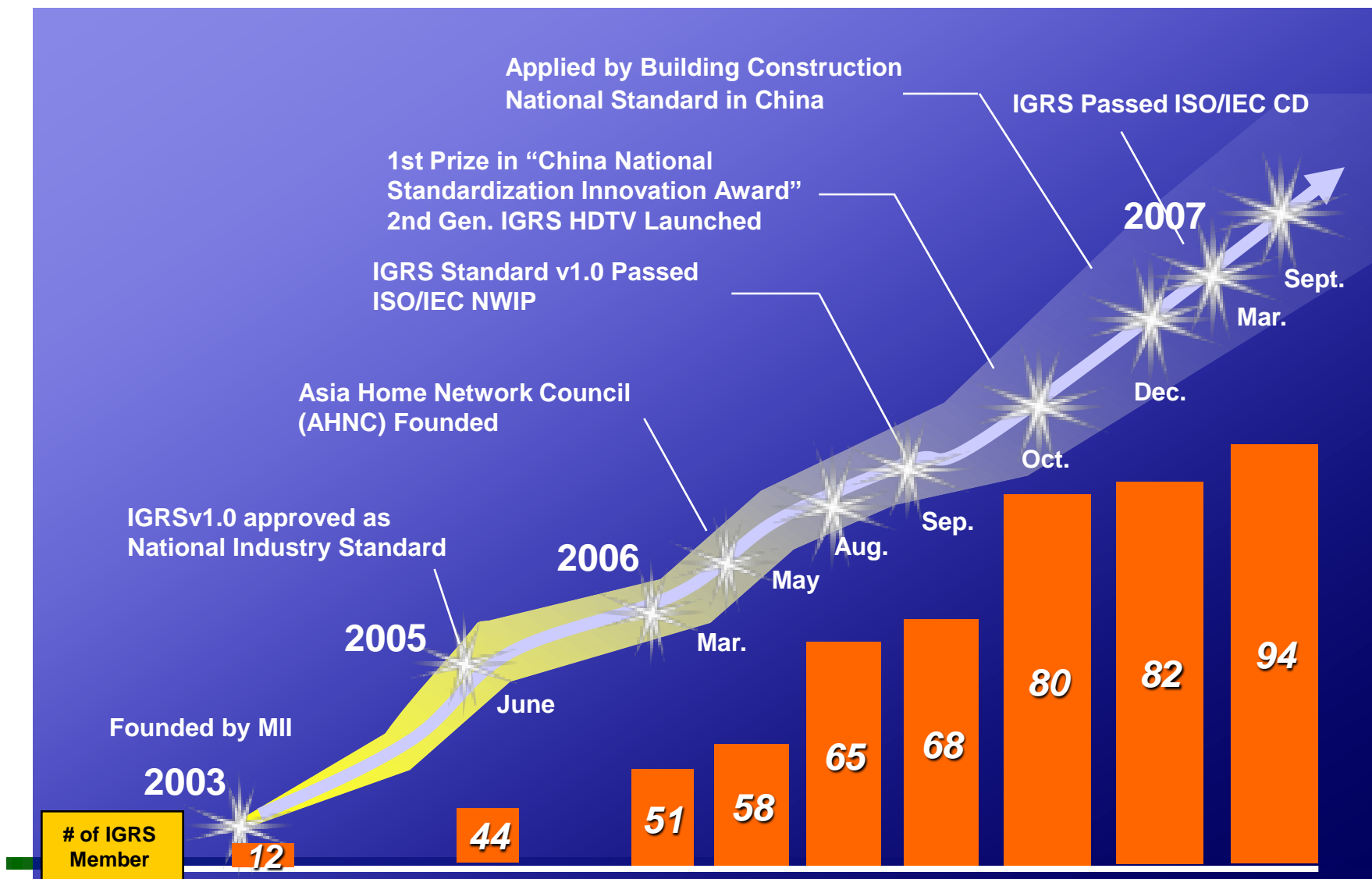
Robust & reliable DRM technology for content protection

Extensibility and Compatibility

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Significant Milestones




IGRS国际标准进展

- 六项闪联标准在ISO/IEC JTC1 SC25获得立项，IGRS技术体系被“ISO/IEC国际标准组织”全面接受，成为全球3C协同技术体系的重要组成部分。
- 第1部分基础协议、第2部分文件应用框架已经全球发布
- 第4部分测试验证进入IS阶段
- 第3、5、6部分全票通过NP + CD投票，均已进入FCD阶段

	
<p>ISO/IEC JTC 1/SC 25 N 1580A Date: 2008-10-31 Replaces: ISO/IEC JTC 1/SC 25 N 1580</p>	
<p>ISO/IEC JTC 1/SC 25 INTERCONNECTION OF INFORMATION TECHNOLOGY EQUIPMENT Secretariat: Germany (DIN)</p>	
DOC TYPE:	Voting report
TITLE:	Revised voting report on SC 25 N 1521: ISO/IEC 2nd FCD 14543-5-1: IT - Home Electronic System (HES) Architecture - Intelligent grouping and resource sharing for HES: Class 2 & Class 3 - Part 5-1: Core Protocol
SOURCE:	SC 25 Secretary
PROJECT:	25.01.13.01
STATUS:	The NTRP has been distributed with the SC 25 N 1177 and JTC 1 N 8128. It has been approved as recorded in SC 25 N 1211A. The CD was distributed with SC 25 N 1273. A found substantial support as recorded in document SC 25 N 1303. The 1st FCD was distributed with SC 25 N 1316. It did not find substantial support and the comments were resolved as recorded in SC 25 N 1320. The second CD was distributed with SC 25 N 1321. • SC 25 N 1321 did receive substantial support. The comments are forwarded to SC 25 WG 1 with the request for resolution and updating of the text. The result has been finalised including objections in determining whether 50 % of the member bodies have reacted.
ACTION ID:	FV1
DUE DATE:	n/a
REQUESTED:	For information
ACTION:	
MEDIUM:	Def
DISTRIBUTION:	ITTF, JTC 1 Secretariat Pl, L, Chairpersons of SC 25 # (including secret)
No. of Pages:	
<p>Secretary - ISO/IEC JTC 1/SC 25 - Dr.-Ing. Walter F. von Pater 23515 P.O. Box 10, Germany Tel.: +49(0)25 967 31, Tlx.: +49(0)25 967 30 (only on request) E-Mail: Walter@Pater.com Home page: http://www.iso.ch/iso/</p>	

	
<p>ISO/IEC JTC 1/SC 25 N 1581A Date: 2008-10-31 Replaces: ISO/IEC JTC 1/SC 25 N 1581</p>	
<p>ISO/IEC JTC 1/SC 25 INTERCONNECTION OF INFORMATION TECHNOLOGY EQUIPMENT Secretariat: Germany (DIN)</p>	
DOC TYPE:	Voting report
TITLE:	Revised voting report on SC 25 N 1523: ISO/IEC 2nd FCD 14543-5-2: IT - Home Electronic System (HES) Architecture - Intelligent grouping and resource sharing for HES: Class 2 & Class 3 - Part 5-2: Application profile - File profile
SOURCE:	SC 25 Secretary
PROJECT:	25.01.13.02-02
STATUS:	The NTRP has been distributed with the SC 25 N 1454 and JTC 1 N 8875. It has been approved as recorded in SC 25 N 1464. The CD was distributed with SC 25 N 1456. A found substantial support as recorded in document SC 25 N 1456. It did not find substantial support and the comments were resolved as recorded in SC 25 N 1523. The FCD was distributed with SC 25 N 1523. • SC 25 N 1523 did receive substantial support. The comments are forwarded to SC 25 WG 1 with the request for resolution and updating of the text. The result has been finalised including objections in determining whether 50 % of the member bodies have reacted.
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<p>ISO/IEC JTC 1/SC 25 N 1542 Date: 2008-07-12 Replaces: ISO/IEC JTC 1/SC 25 N/A</p>	
<p>ISO/IEC JTC 1/SC 25 INTERCONNECTION OF INFORMATION TECHNOLOGY EQUIPMENT Secretariat: Germany (DIN)</p>	
DOC TYPE:	Voting report
TITLE:	Voting report and collation of comments on ISO/IEC FDIS 14543-5-4: Information technology - Home Electronic System (HES) Architecture - Intelligent grouping and resource sharing for HES: Class 2 & Class 3 - Part 5-4: Device Certification
SOURCE:	SC 25 Secretary (ISO central secretariat)
PROJECT:	25.01.13.04
STATUS:	The NTRP has been distributed with the SC 25 N 1177 and JTC 1 N 8128. It has been approved as recorded in SC 25 N 1211A. The CD was distributed with SC 25 N 1277. A found substantial support as recorded in document SC 25 N 1364. The comments were resolved as recorded in SC 25 N 1361 and the FCD distributed with SC 25 N 1362. The FCD did receive substantial support as recorded in SC 25 N 1433A. The comments have been resolved as recorded in SC 25 N 1489. The FDIS was distributed into 08-05 and was approved as recorded by ISO central office and recorded in this document.
ACTION ID:	FV1
DUE DATE:	n/a
REQUESTED:	For information
ACTION:	
MEDIUM:	Def
DISTRIBUTION:	ITTF, JTC 1 Secretariat Pl, L, Chairpersons of SC 25 # (including secret)
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IGRS Alliance

- Alliance currently consists of 94 IGRS members. Worldwide members include companies from North America, Europe, Korea, Taiwan and Hong Kong

lenovo 联想

TCL

KONKA 康佳®

Hisense 海信
— 创享智慧生活 —Great Wall 长城
品质铸就辉煌

Skyworth 创维

CHANGHONG 长虹®

AMOI 夏新
— 电子产品专家 —中国电信
CHINA TELECOM

CNC 中国网通

HUAWEI

ZTE 中兴

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清华大学



中科院微电子所

CCRET

六合万通微电子
LIHAT MICROELECTRONICS INC.

LG

Future Systems

力新国际

Net-2Com

Gemtek
systemsAccton
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vlsi technology for the digital lifeUSI®
A MEMBER OF ASE GROUP宽兆科技
KINBAO TECHNOLOGIES

天科电子

Smartisys 思美特

阿瑟勒科技
Digital Home SolutionsGrandi
公达数码CSIP
信息产业部软件与集成电路设计中心
Ministry of Information Industry Software and Integrated Circuit Design Center

StarCom

豪杰技术

BTI
天地互连威讯精密科技有限公司
WUXINSE TECHNOLOGIES

SIN WAVE

DWnet
无线网际网路千之叶服务机构
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CoDigital Media Services Ltd

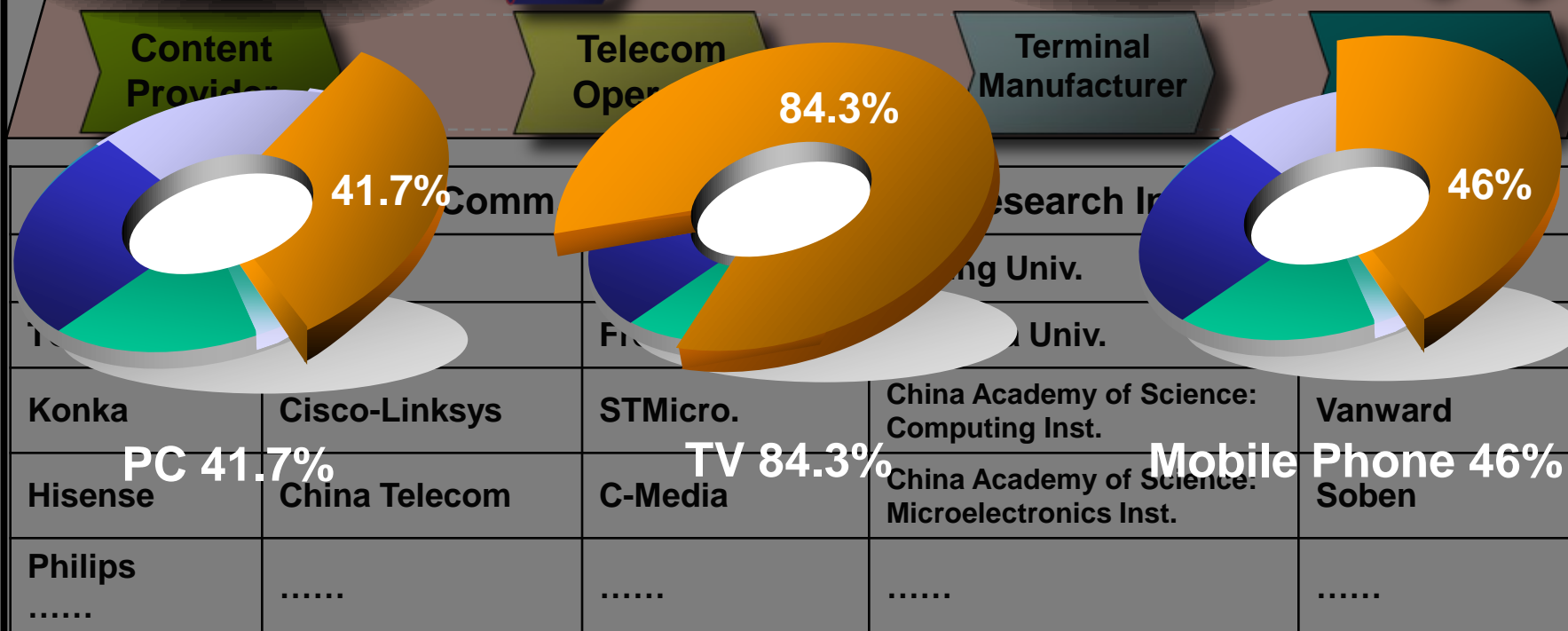
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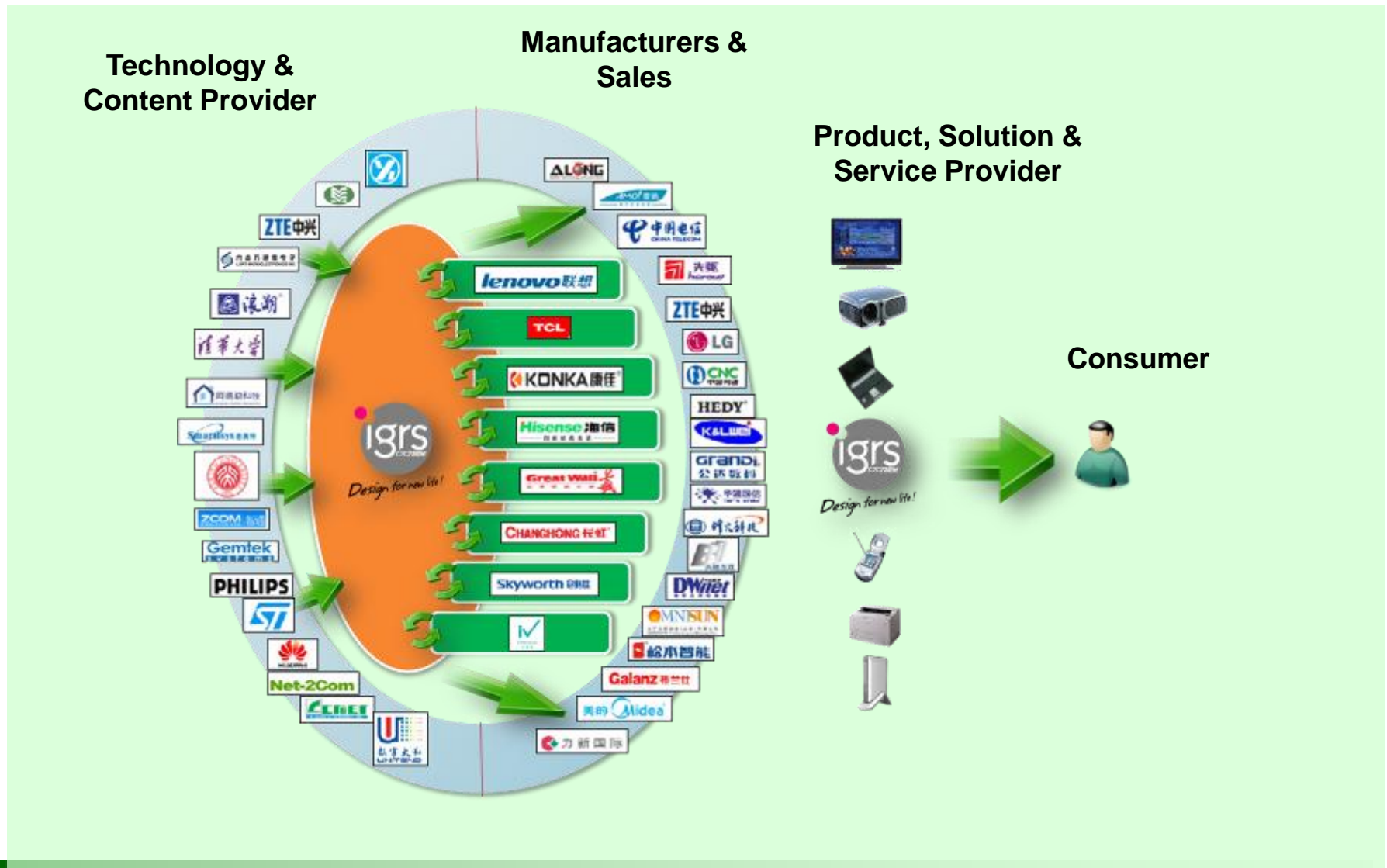
IGRS Alliance Members

94 Members to Build complete 3C Industry Chain

Market Share by IGRS Members

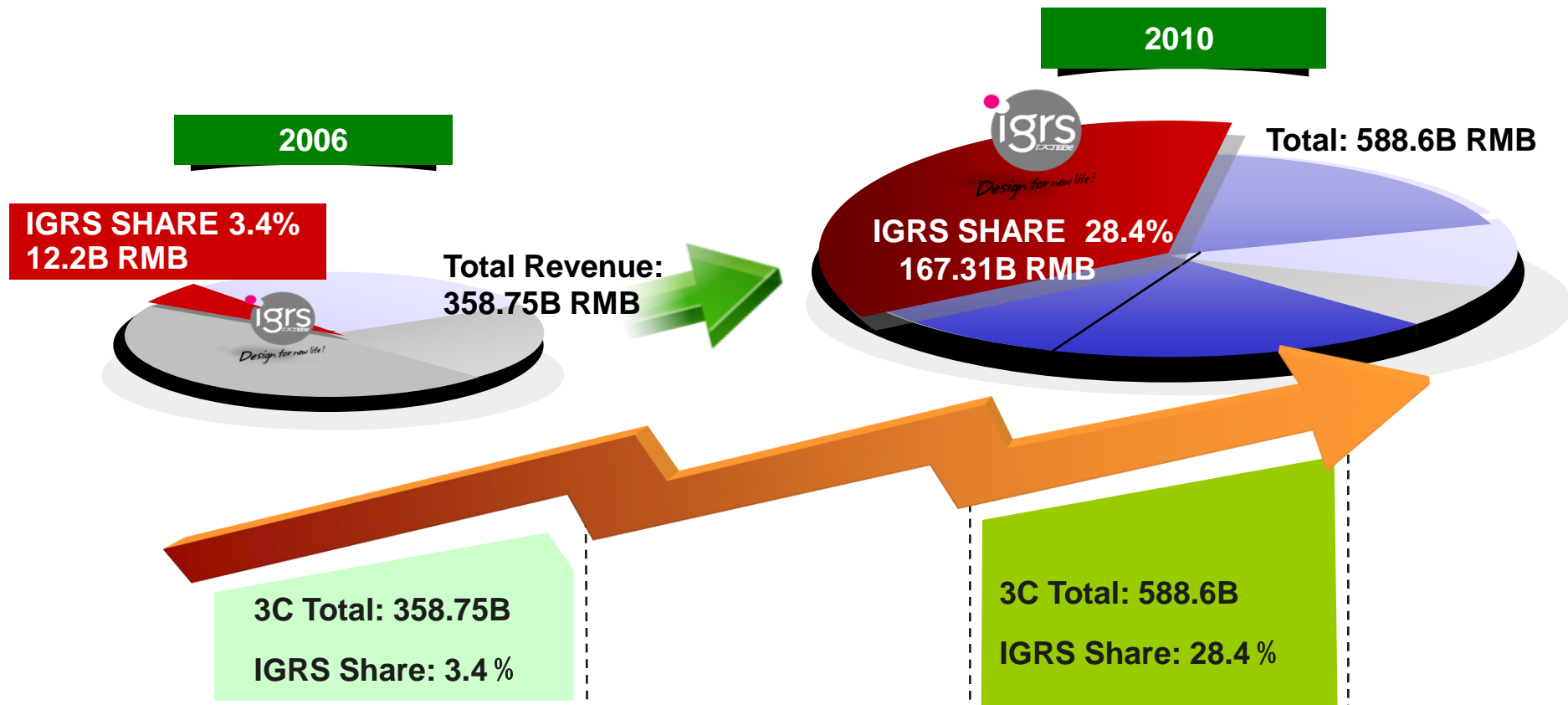


IGRS Alliance Model



Market Size

- Intelligent Grouping, Resource Sharing, Service Collaboration
 - Computer
 - Communication
 - Consumer Electronics



Many IGRS Products Launched to Market

- 20+ IGRS products released to market, including: IGRS PC, notebook, mobile phone, projector, printer, IGRS MediaLink, IGRS TV and IGRS Wireless Audio AP etc...
- IGRS used as product differentiation feature for alliance members. In 2005, IGRS sales (PC, notebook, mobile phone, TV, projector etc.) exceeded 1 million units; in 2006, sales exceeded 2 million units respectively
- Lenovo, Greatwall, Founders and Tongfang released full lines of IGRS notebooks
- Konka and Hisense's IGRS TV on sale in stores



JAP (Joint Application Program): IGRS Wireless HDTV

IGRS Engineering Lab+5 major TV manufacturer to develop prototypes based on the same platform. Customization and engineering were done individually before mass production and market launch

Skyworth Konka Hisense Changhong TCL IGRS Joint Development

——World's 1st IGRS Wireless HDTV



Product and Market

IGRS Experience Stores



IGRS PC Sales



IGRS TV Sales



International Progress

“Fair, Open and Interoperable” principle to cooperate with other standard organizations worldwide

- **IGRS' Influence Expands**

- IGRS approved as China national industry standard in June 2005 to become the first 3C Convergence national standard in China
- Breakthrough in international standardization - IGRS standard received high votes to become FCD in ISO/IEC JTC1 SC25 voting.
- Cooperating with Home Network Forum of Korea, Echonet Consortium of Japan, founded the Asia Home Network Council in March, 2006
- Signed MOU to cooperate with the IPv6 Forum in February, 2006
- Cooperating with DLNA, UPnP Forum, CEPCA and many other major international companies
- Defined IGRS IP strategy, 204 essential patents disclosed



Strong Government Support

- IGRS Information Industry Association founded
- Strong support of standardization activities to accelerate industry development
- National Development & Reform Commission (NDRC) supports the establishment of IGRS national engineering lab
- NDRC grants IGRS standard research project & CNGI project
- ...



In June 2005, Premier Wen visited Lenovo and heard reports on IGRS

National Development and Reform Commission
Ministry of Information Industry
Ministry of Science and Technology of PRC
Beijing Municipal Commission of Development and Reform
State Intellectual Property Office of PRC

Beijing Municipal Science & Technology Commission
The People's Government of Beijing Municipal
Administrative Committee of Zhongguancun Science Park
Beijing Municipal Bureau of Industrial Development
Beijing Bureau of Quality & Technical Supervision

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IGRS Summary

- Market focused & enterprise-dominated matured leading 3C-Convergence national Industry Standard in China
- Solid industry foundation and strong members alliance across industries with phenomenal results up-to-date
- Open international cooperation ongoing
 - Worldwide participations in IGRS standard development
 - Marketing and joint lab efforts
- Enormous impact: create many potential business opportunities for entire industry chain



共享多彩数字生活 *Design for new life!*



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IGRS Engineering Lab Ltd.