中国ICT产业发展情况与
信息安全形势
Development of ICT in China
and
Information Security Conditions

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12/12/16

1　中国ICT产业发展概况
Development of ICT in China

近年来，中国ICT产业发展势头良好，形成了坚实的网络基础、应用基础和用户基础，生态体系不断完善，产业链掌控能力不断提升，日益成为创新驱动发展的先导力量、驱动国民经济增长的新引擎、引领产业转型和融合创新的新平台，提升政府治理能力和公共服务能力的新手段。

Development of China ICT industry is growing well in recent years, forming a solid foundation of network and users then constantly improve the ecological industry chain. ICT sector has become the leading force for innovation, driving the national economic growth, leading the new engine of industrial transformation and new platform, which enhanced the governance capacity and public service ability.

1、产业规模持续扩大Industrial scale continues to expand

单位：亿元（人民币） Unit: 100 million (RMB)	2011	2012	2013	2014	2015
电子信息制造业收入 Electronic manufacturing industry revenue	74909	84619	93202	103000	111318
软件和信息技术服务业 Software and Info Tech services	18849	24794	31000	37000	43249
电信业务收入 Telecom service revenue	9880	10763	11689	11541	11251
ICT产业收入规模合计 ICT industry revenue size	103638	120176	135891	151541	165818

主要产品均居于全球首位；2015年，中国的手机、彩电和计算机产量分别达到18.1亿部、1.4亿台和3.1亿部。新兴领域，光纤光缆、太阳能电池、LED管、液晶面板等均快速增长。

Main products are among world's top.In 2015, China's mobile phone, TV and computer production each reached 1 billion 810 million, 140 million and 310 million. Emerging areas like optical fiber and cable, solar cells, LED tube, LCD panels, etc. are also of fast growth.

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2、产业结构不断优化 Continuous optimization of industrial structure

结构维度 Structure dimension	2011	2015	特 征 Features
软件与硬件制造业比例 Software to hardware Ratio	20：80	30：70	软硬结构比例日趋协调 Software and hardware are balanced
电子信息制造业中内销比重 Domestic sales Proportion	45%	54%	行业内生动力日益增强 Growing power increased
电子信息制造业中内资比重 Domestic investment Proportion	29%	40%	
软件业中信息技术服务比重 Proportion of info tech service in software industry	48%	52%	服务化趋势不断凸显 Service trends continue to highlight
电信业中非话业务比重 Proportion of non-voice business in telecom industry	43%	58%	对传统话音业务依赖减弱 Less reliance on traditional voice business

新型显示 New Monitors
国内自给率超过70%，占全球超过25%
Domestic self-sufficiency rate more than 70%, more than 25% of the world，

移动智能终端 Mobile Intelligent Terminals
自主品牌智能手机占国内市场超过80%，占全球市场超过40%
proprietary brands smart phone： more than 80% of the domestic market, more than 40% of global market

云计算 Cloud Computing
2015年市场规模超过2000亿元
2015 market size more than 200 billion RMB

大数据 Big Data
政府高度重视，成功案例不断丰富。
Government pays attention and successful cases continued to enrich.

物联网 IOT
2015年产业规模7500亿元人民币

3、 研发创新明显加快 R & D innovation significantly accelerated

中国电子信息企业对研发创新的重视程度不断提高，产业链短板不断得到完善。

Chinese electronic information enterprises pay more attention to R&D, industry chain is constantly improving the short board.
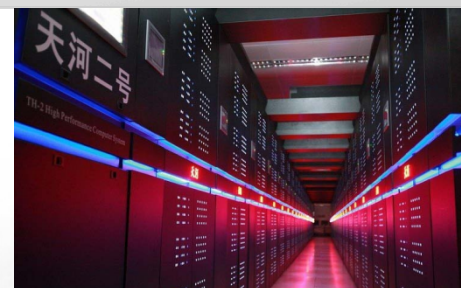
研发投入加大，创新成果丰硕　　More R & D investment, fruitful innovation

中国电子信息行业平均研发投入强度3%；其中：电子信息百强企业6%，软件和信息技术服务百强企业接近10%。2011年-2015年，电子信息领域发明专利年均增速超过20%。

average R & D investment intensity is 3%; of which electronic information Top 100 enterprises 6%, software and info tech services Top 100 enterprises 10%. 2011 -2015, annual growth rate of invention patents in the field of electronic information is more than 20%.

体系逐步完善，技术亮点突出　　System gradually improved

➢集成电路设计水平达到16纳米，28纳米实现小规模量产

➢Integrated circuit design level :16 nm, small-scale production level: 28 nm

➢高性能计算机"天河二号"位居全球超级计算机榜首

➢High performance computer Tianhe 2 ranked the Top of world supercomputer

➢自主4G技术获得全球认可，5G研发全球领先

➢Original 4G technology gained global reputation, world leading 5G R&D

➢云计算、物联网、射频连接器、同轴通信电缆等国际标准成功发布

➢Successfully published international standards of Cloud computing, IOT,RFID, coaxial communication cables and other

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4、信息基础设施加速升级 Information infrastructure to accelerate the upgrade

中国通信基础设施建设和升级加快，宽带网络升级改造，光纤入户，宽带网络普及水平和接入能力等成效显著。

Infrastructure construction upgraded, broadband network transformed, capabilities of optical fiber increased

信息通信保障能力提升，截止2015年末 Information communications capabilities enhanced, by the end of 2015:

光纤接入（FTTH）端口2.69亿个，占比56.7%
Fiber access (FTTH) port 269 million, accounting for 56.7%

移动通信基站467万个，3G/4G基站321万个，占比68.7%
Mobile communication base stations 4 million 670 thousand, 3G/4G base stations 3 million 210 thousand, accounting for 68.7%

光缆线路总长度达到2487万公里，连续5年增速超过15%
Cable line total length : 24 million 870 thousand km, growth rate more than 15% for 5 consecutive years

2014年新增7个国家级骨干直联接入点，互通效率大幅提升
7 New national backbone direct access points in 2014 of great efficiency

与30多个国家和地区实现通信网络直连
Direct communication network with more than 30 countries and regions

国际网络布局进一步完善，出口带宽达到5266G
Improve International network layout , export bandwidth of 5266G

5、 支撑社会信息化水平提升 Support the level of information technology

中国ICT产业的快速发展带动了全社会信息化水平的稳步提升：

Rapid development of China's ICT industry led to a steady improvement of whole society

生产领域 Manufacturing Area

大中型制造企业数字化设计普及率85%，关键工艺数控化率70%。
Digital rate of large and medium-sized manufacturing enterprises is 85%, key process control rate is 70%

生活领域 Life Area

网上购物、网络娱乐、网络创业蓬勃发展 Online shopping, entertainment, and entrepreneurship flourish.

项目 Item	2011	2012	2013	2014	2015
网民数（万人） Number of Internet users (Unit: 10000 people)	51310	56400	61758	64875	68826
互联网普及率 Internet penetration rate	38.3%	42.1%	45.8%	47.9%	50.3%
手机网民占比 Mobile users rate	69.3%	74.5%	81.0%	85.8%	90.1%
网站数量（万个） Number of sites (Unit10000)	230	268	320	335	423
网络购物交易规模（万亿） Online shopping transaction size (Unit :trillion RMB)	0.8	1.2	1.9	2.8	3.8

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2　　**中国信息安全发展环境** Environment of Info Security In China

中国社会信息化水平不断提升，信息安全的重要性日益凸显。但是，在信息安全相关的法规、标准、人才及管理等方面发展还较为薄弱。

The level of China's social information is constantly improving, the importance of information security has become increasingly prominent. However, in the information security related regulations, standards, personnel and management and other aspects of the development is still relatively weak.

1、全球范围高度重视信息安全 Information security is of great importance globally

随着信息技术应用的快速发展，信息安全已经成为大国博弈的新领域

With the rapid development of information technology, information security has become a new field of competition

美国 USA 积极布局网络空间
Active plans on network

发达国家 Other Developing Countries 纷纷响应，战略协同
Response and coordinate

✓《关键基础设施网络安全总统指令》（2013）

✓Framework for Improving Critical Infrastructure Cybersecurity(2013)

✓《美国网络行动政策》（2012）

✓Cybersecurity National Action Plan （2012）

✓《网络空间军事行动战略》（2011）

✓Strategy for Operating in Cyberspace （2011）

✓《网络空间国际战略》（2011）

✓International Strategy for Cyberspace （2011）

✓《网络空间可信身份认证国家战略》（2011）

✓National Strategy TrustedIdentities Cyberspace,NSTIC   （2011）

✓《国家网络空间安全战略》（2003）

✓National cyberspace security strategy （2003）

✓英国：《网络安全战略》（新版）（2011）

✓Britain: Network security strategy (New Version) (2011)

✓法国：《信息系统防御和安全战略》（2011）

✓France: ANSSI- Information systems defense and security strategy   （2011）

✓德国：《网络安全战略》（2011）

✓Germany: network security strategy （2011）

✓荷兰：《国家网络安全战略》（2011）

✓Netherland: National Cyber Security Strategy (2011)

✓捷克：《网络安全战略》（2011-2015）

✓Czech Republic: "network security strategy" (2011-2015)

✓欧盟：《网络安全战略》（2013）

✓European Commission : Cybersecurity Strategy of the European Union   (2013)

1、全球范围高度重视信息安全 Information security is of great importance globally

随着信息技术应用的快速发展，信息安全已经成为大国博弈的新领域

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Other Countries   高度重视，持续跟进continue to follow up

- ✓ 俄罗斯：《国家"信息社会"纲要》（2011-2020）
- ✓ Russia: National Information Society （2011-2020）
- ✓ 印度：《国家网络安全政策》（2011）
- ✓ India: National Cyber Security Policy (2011)
- ✓ 韩国：《国家网络安全综合计划》（2011）
- ✓ South Korea: National network security comprehensive plan (2011)
- ✓ 加拿大：《网络安全战略》（2011）
- ✓ Canada: Network security strategy (2011)
- ✓ 日本：《国民信息安全战略》（2010）
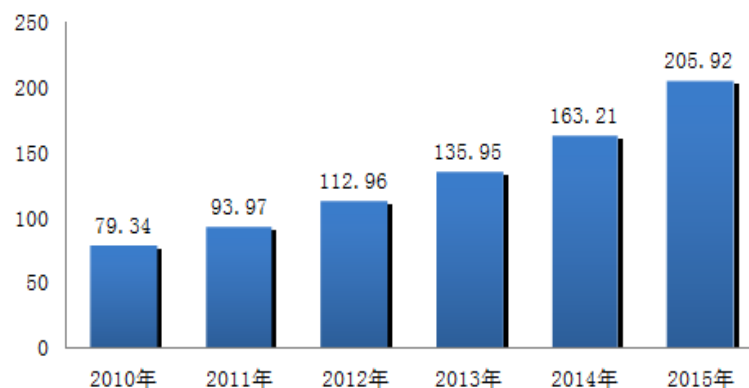- ✓ Japan: National information security strategy (2010)

2、中国信息安全市场空间广阔 China's information security market is broad

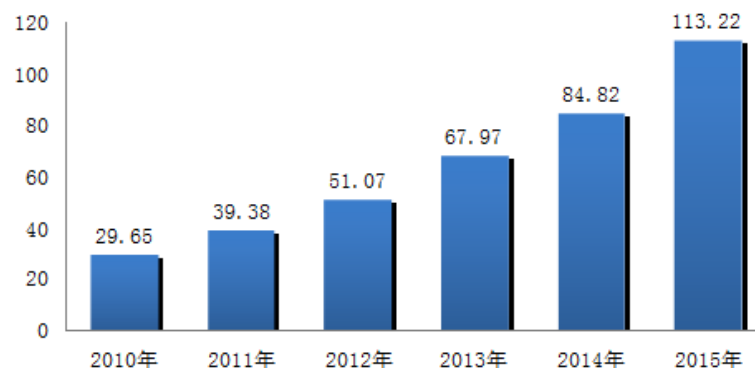| 主要指标 Key Index	全球 Globe	中国 China	中国占比 China account for
网民总量（亿人） Number of Internet users (Unit: Trillion)	31.74	6.88	占全球网民数量比重超过20% more than 20% the number of Internet users worldwide
互联网普及率（%） Internet penetration rate	46.4	50.3	高出全球平均水平3.9个百分点 3.9 % higher than the global average
注册域名总量（万个） Total No. of registered domain (Unit:10000)	31150	3102	占全球域名总量比重达到10% 10% of the total number of global domines
移动互联网接入设备（亿台） Mobile Internet access device (Unit:100 million)	70	8.99	占全球比重达到12.8% Accounting for 12.8% of the global share

3、信息安全产业规模快速增长 Rapid growth in the size of the information security industry

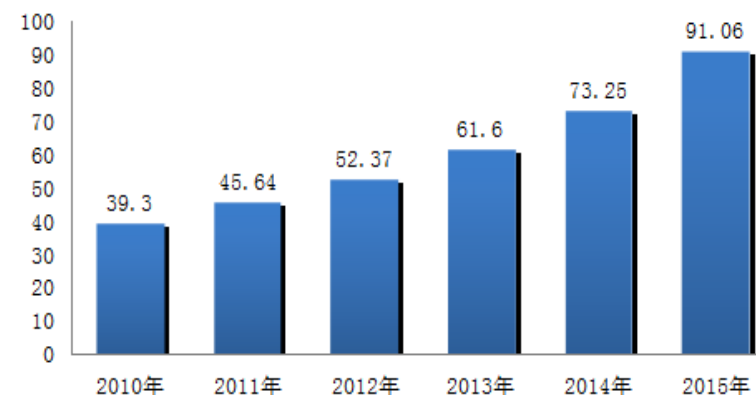2015年，中国信息安全硬件市场规模206亿元，软件市场规模113亿元，服务市场规模91亿元，合计410亿元；2011-2015年年均增速达到23%。

In 2015, China's information security hardware market size is of 20 billion 600 million RMB, software market size is of 11 billion 300 million RMB, the service market size of 9 billion 100 million yuan, a total of 41 billion yuan; 2011-2015 annual average annual growth rate of 23%.

■信息安全硬件市场规模：亿元

■信息安全软件市场规模：亿元

■信息安全服务市场规模：亿元

4、中国信息安全发展面临的困难 The difficulties faced by the development of information security in China

中国信息安全产业总体环境依然有待优化，保障能力有待提升。

China's information security industry overall environment remains to be optimized, the ability to protect the security needs to be improved.

产业技术基础薄弱
Industry technology foundation is weak

中国关键信息技术和核心产品对外依存度高，基础软件主要由国外品牌。

China's key information technology and core products are highly dependent on external dependence, the basic software is mainly by foreign brands.

法律法规建设滞后
Law and regulation construction lag behind

重要信息系统保护、政府信息安全管理、信息技术产品的安全审查、网络犯罪电子证据取证程序等方面都迫切需要立法规范

For important information system protection, government information security management, information technology products security review, cybercrime evidence collection procedure, etc.

相关人才较为匮乏 Lack relevant talents

拥有全球视野、战略思维的高层次领军人才不足；亟待建立专业、完善的信息安全人才培养机制。

Talents of global mindsets are not enough; in urgent need to establish a professional and perfect information security personnel training mechanism.

安全意识有待提升 Awareness to be improved

主要行业的信息安全投入比重落后于世界平均水平；个人用户信息安全意识淡漠，很少有个人用户付费购买信息安全服务。

Information security lags behind the world average level; private user information security awareness is indifferent, very few purchase information security service.

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3 中国信息安全发展重点
Key Area of Info Security in China

中国在信息安全方面的立法、等级保护和标准化工作稳步推进，信息安全产业发展良好。国家在政策法规体系建设、核心基础能力保障、国际合作交流等方面的推进力度进一步加大。

China's legislation on information security, the level of protection and standardization work steadily, the development of the information security industry are in good conditions. National policies and regulations in the construction, the core infrastructure capabilities, international cooperation and exchanges are the aspects for further development.

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1、加快完善信息安全相关法律法规体系
Speed up the improvement of information security related laws and regulations system

中国将网络和信息安全上升为国家战略，出台了一系列政策措施加强信息安全建设，促进信息安全产业发展。

China will increase the network and information security as a national strategy, the introduction of a series of policies and measures to strengthen the construction of information security, and promote the development of information security industry

· 中央网络安全和信息化领导小组 ·

成立时间: 2014年2月27日

组长

习近平

副组长

李克强   刘云山

常设办事机构
中央网络安全和信息化领导小组办公室

《关于加强党政机关网站安全管理的通知》

《国家网络安全检测工作方案》

《加强电信和互联网行业网络安全工作指导意见》

《关于应用安全可控信息技术加强银行业网络安全和信息化建设的指导意见》

《关于进一步加强军队信息安全工作的意见》

《网络安全法》即将发布

2、加速提升信息安全技术基础保障能力 Accelerate the information security technology to enhance the ability to protect

出台了《国家集成电路产业发展推进纲要》。加快推进ICT产业转型升级，为国家信息安全提供保障。

Accelerate the transformation and upgrading of the ICT industry to provide protection for national information security.

《国家集成电路产业发展推进纲要》
Outline of development of national integrated circuit industry

四大发展任务

Four major development tasks

➢一是着力发展集成电路设计业。
➢Focus on the development of integrated circuit design
➢二是加速发展集成电路制造业。
➢Accelerate the development of integrated circuit manufacturing.
➢三是提升先进封装测试业发展水平。
➢Improve the development level of advanced packaging and testing industry
➢四是突破集成电路关键装备和材料。
➢Break through the key equipment and materials of the integrated circuit

八项保障措施 8 assurance measure

✓第一，成立国家集成电路产业发展领导小组；
✓Leading group for the development of the national integrated circuit industry
✓第二，设立国家产业投资基金；
✓Establish national industrial investment fund
✓第三，加大金融支持力度；
✓Increase financial support
✓第四，推动落实税收支持政策；
✓Refine tax support policies
✓第五，加强安全可靠软硬件的应用；
✓Strengthen the use of reliable software and hardware
✓第六，强化企业创新能力建设；
✓Strengthen the construction of enterprise innovation ability
✓第七，加强人才培养和引进力度；
✓Strengthen the training and introduction of talents
✓第八，整合国际资源，大力吸引境外资金、技术和人才。 Integrate international resources,attract foreign capital, technology and talent

3、进一步深化国际对话与交流合作 Further deepen international dialogue and exchanges and cooperation

近年来，世界各国纷纷加强信息安全领域的战略合作，以应对复杂多变的信息安全形势。中国将与其他国家进一步加深信息安全领域的战略合作，共同应对网络空间的安全挑战。

Various countries have strengthened the strategic cooperation in the field of information security, in order to cope with the complex and volatile information security situation. China will further deepen the strategic cooperation in the field of information security and other countries to jointly cope with the security challenges of cyberspace.

深化国际合作 Deepen international cooperation

一是推动建立"多边、民主、透明"国际网络治理体系
Build a multilateral, democratic and transparent international network management system

二是加强信息安全协商对话，凝聚合作共识
Continue to dialogue, reach more consensus

三是引导和支持企业、研究机构参与国际信息安全交流活动
Support enterprises and research institutions to participate in international information security exchange activities

欢迎交流合作！Welcome your cooperation!

谢谢大家！ Thank you!

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