

The Context of the Digital Media Practice Path of Tianjin Triple Play

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Abstract—Since the 1990s, digital technology has made rapid development in the field of mass communication has been the spread of traditional analog digitization process began, more and more digital media began to walk into people's daily lives. Since the new century, the media industry in the development of digital Tianjin Context has made considerable progress, mainly through technology integration, market integration and business integration of the three paths to achieve the triple play is important to characterize the development of the media industry in Tianjin.

Keywords-Digital Media; Tianjin; Triple play

Digital media refers to the form of binary numbers recording, processing, transmission, access to information carrier process, these carriers include digitized text, graphics, images, sound, video, images and animation feel the media, and expressed these feelings media said media (coding), etc., known as logical media, and storage, transmission, display the physical media logical media. But in the usual sense of the digital media often refer to the alleged media sensation.

I. Numeric context - the era of triple play environment

Tianjin as the 2003 digital TV one of the pilot cities, according to the work plan, to be completed by the end of 2008 1.8 million of the "whole jobs from MCC in 2007." Ye have exceeded the entire transfer 1.2 million^①. Silt in urban areas, the scope of county-level cities have been unable to find enough "rule of the entire source Transfer case, the full swing of the overall conversion of rural users in 2000," the rule of Tianjin Radio and Television Network Company, was established face "Province No user-level network company MCC (ie, only the trunk of Tianjin network resources, and more than 200 million cable subscribers are located in 18 districts and counties in the hands) embarrassment. To solve this problem, the Tianjin municipal government leaders personally commanded, asked 18 counties, jointly funded cable television station and Development, in the form of stock, the formation of the new Tianjin Radio and Television Network Inc. in April 2004, the Tianjin municipal government in the name of both the Office jointly issued a document on the wired network integration clear objectives --- "Integration Tianjin wired network resources, streamline internal systems, the full acquisition of the assets and personnel in full reception. Integrated secondary smelting Tianjin Radio and Television Network Company to rationalize the mechanism. In the resource integration, platform structures, network transformation, marketing, and a further four steps left, ultimately ensure Tianjin digital television to achieve "good and fast, promoting the rule of harmony. Currently, the basic

realization of Tianjin Radio and TV program production and production Digitized Meanwhile, the use of digital technology and network technology, the radio and television transmission network digitization If digital TV is a new digital media building is the most important part, other digital media establishment, such as: "network TV MCC, "Ye digital cinema," the rule of mobile TV, "mobile newspaper MCC and other new media are new digital media building the most innovative projects in digital broadcasting, in the early 1990s, the former State Ministry of Radio, Film and Television to proceed research project^②.

Tianjin Radio and TV Tower as the " Beijing - Langfang - DAB pilot network of Tianjin Metallurgical launch pad site for the construction of digital broadcasting and communication plays a pivotal role in September 2008 , Tianjin People's Radio broadcasts aired innovative way . opened a "telephone broadcast MCC to achieve the integration of broadcasting and telecommunications systems. Major theaters in digital cinema , currently including the Tianjin International Film Studios, Tianjin tai Cineplex , Tianjin Bay --- Star Cineplex, Tianjin Wanda Cinema , Jinyi International Cinema City , etc., can broadcast digital cinema^③. In terms of mobile newspaper , February 27, 2006 , by the Tianjin Daily Newspaper Group " Meirixinbao " and Tianjin Mobile jointly launched the " Tianjin MMS reported --- " Meirixinbao "news was officially launched MCC Mobile News , became the first to introduce Tianjin print media " mobile newspaper MCC . On the " Meirixinbao " news content to the user's mobile phone via MMS wireless technology platform , enabling users at the first time of the day by phone the day reading to the essence of the content of the newspaper .

"The 11th Five-Year Plan proposal CPC Central Committee on Economic and Social Development," October 11, 2005 Party Plenum adopted, for the first time, "the rule of the major technical triple play trends written therein: "Strengthening broadband communications networks, the Internet and other digital networks and next-generation information infrastructure construction, promote 'triple play, a sound information security system. Ye-called triple play, refers to telecommunications networks, radio networks and computer communication network interpenetration, compatible with each other, and gradually integrate into a unified information and communication networks around the world. Triple play is to achieve a shared network resources, avoid duplication and low-level, forming wide adaptability, easy maintenance, low-cost multimedia-based platform for high-speed bandwidth.

II. Technology integration - a prerequisite for triple play

Triple play refers to telecommunications networks, radio

networks, broadband communications network to the Internet, digital television, next generation Internet evolution, the three major networks through technological innovation, its technical features are consistent, business tends to be the same, network interoperability, resource sharing, to provide users with voice, data and broadcast television and other services. triple play "digital technology Ye," the rule of optical communication technology, "software technology Ye," IP protocol the rule of the four technology integration and development results. First, digital technology will telephone, data and video signal is encoded into "a rule of" 0 Ye symbols for transmission, become the common language of telecommunications, computer networks and cable TV. All business in the digital network will become unified without any distinction of 0 / 1 bitstream, the digital signal allows telephone, data, audio and video content through a variety of different network transmission, switching, routing and delivery of treatment. Secondly, the need for high-capacity optical fiber communication network convergence technology as the necessary bandwidth to send all kinds of business. One pair of fiber can accommodate hundreds of millions of calls, a few dozen of the fiber optic cable that can accommodate billions of people call. In order to improve transmission quality, in recent years, the state vigorously promote the development of optical fiber communication. By 2005, the national telephone line more than 500 million users (telephone penetration rate of 40%), the total length of fiber-optic cables to reach 2.5 million kilometers. Optical fiber communication has become the backbone transmission network telecommunications services. Third, in order to make the three major networks and terminals can be changed by software, a variety of end-user support required features, functions and operations. In recent years, "Huawei silt Ye," Shanghai Bell at MCC and other network research and development team as the representative of enterprises in China to promote the development of policies to support triple play, the strongly developed software technology, modern communication equipment and software of a highly intelligent products. According to the Tianjin Economic and Information Technology Commission submitted to the Ministry of news websites, Tianjin identified as basic triple play pilot cities. In the Tianjin Economic and Information Technology Commission has taken various measures to actively promote "the rule of the integration of the two, one of which is to promote two-way broadcasting and telecommunications services into a pilot to explore the formation of policy and institutional system of triple play protection orderly conduct of mechanisms to promote the development of software and information services.

Finally, IP protocol is widely adopted, makes a variety of IP-based business can achieve interoperability in different online. IP protocol has not only become the dominant communication protocol, more importantly, is the first time a unified, acceptable to all three major network communication protocols, thus laying the most technically solid networking as "triple play MCC foundation. integration and technological progress in the field of technically as "triple play MCC created the conditions for the rapid integration of the industry in technology, services and markets. With these technical conditions, many market participants on the strategy through

cross-platform and cross-product development beyond the traditional scope of business, expand a business offer.

Triple play is a broad socialization argument, at this stage, it does not mean that the telecommunications network, the physical computer network and cable television unity of the three major networks, but mainly refers to the integration of high-level business applications. Its performance for the technical convergence, interoperability can be achieved on the network layer, forming a seamless coverage, penetration and cross each other on a business level, tend to use a unified IP protocol on the application layer, in the business to compete with each other, cooperate with each other, moving to provide a variety of human, multimedia, personalized services gradual convergence with the same goal, regulatory and policy aspects of the industry is also gradually moving towards unity. In summary, technology integration is a prerequisite for the triple play.

III. Triple play business integration manifestations

Business integration is the manifestation of the triple play, including two aspects^④: First, users use the same service through different telecommunications network, the second is to use the same business users through different terminals. For example, the integration of mobile phones under the business model and the user can receive TV programs via computers, cell phones, handheld devices, televisions and other different terminals. With the rapid development of information technology and the expansion of the information needs of the community, people are increasingly demanding personalized multi-functional, requiring mutual penetration and integration of three networks in business applications to achieve multi-service capabilities to meet the expanding market demand.

In China, the three networks of business integration mainly as three modes: the first is a telecommunications network led wide network integration and Internet service integration model. This mode is mainly Telecom IP network based on integration of television and the Internet, expanding network capacity to support video services, enabling to meet the needs of voice, video and data services and other business capabilities. Such a business model is currently embodied as IPTV business model. IPTV triple play is based telecommunication network business, is one of the important means of telecom operators to achieve the transition to an integrated information service provider, but also to achieve the triple play telecommunications network entry point. IPTV using the IP network protocol, television programs and other services jointly provided by IP network or networks through IP networks and is considered the most perfect combination of triple play mode. The second is based broadcast television network, the integration of the business model of integration of Internet and telecommunications networks. This mode is mainly centered on the development of digital television, Internet integration, expansion of the network capacity to support two-way data, video and audio services. Through a network of information sources and digital, two-way transformation to digital and interactive features, with wide power grid, telecommunications networks and the Internet pathways and technology, the traditional TV and dissemination of new technologies integrated in one. Ministry

of Information Industry, the State Administration of Radio, six ministries have issued policies to encourage the development of digital television industry, the policy clearly establish and perfect adaptation "triple play service mechanism operational rule of development, to encourage the use of national radio and television and radio and television public communication network network information network to provide digital television services and value-added telecommunications services. third mobile network is based on cooperation with the Internet business model of integration of three networks.

IV. Market integration - industrial path triple play

January 13, 2010, Premier Wen Jiabao chaired a State Council executive meeting, decided to accelerate the telecommunications network, broadcast television and the Internet. The meeting clearly a triple play timetable proposed two-step development plan. 2010-2012 pilot phase, from 2013 to 2015 for the promotion stage. Both the pilot or promotion, promote the implementation of triple play will promote integration by the big "three networks inside and outside the rule of extending the market Specifically, mainly includes three aspects:

The first is the "rule of three networks convergence respective markets, this integration to business integration as a precondition^⑥. In the case of three networks and fusion of telecommunications, radio and television, the Internet and are relatively independent of each dominate. Although the telecommunications network can transmit a variety of business, but still mainly oriented to transmit telephone service; broadcasting industry has long been available to users only broadcast video content, users passively receive information, content providers and end users between parties basically no interaction; internet single market has also led to a lack of technical and operational experience in large-scale networks and telephone business, the lack of effective control of the whole network, it is difficult to achieve a unified network management, but also can not guarantee the quality of real-time business. In order to solve the above problems, the state in promoting the triple play clearly a "principle of the rule of two-way access. May 19, 2009, the National Development and Reform Commission to develop a" deepening economic reform on the 2009 work of views "on the proposed to implement the relevant national regulations, to achieve two-way broadcasting and telecommunications companies to enter, to promote the "triple play MCC achieve substantive progress. March 12, 2010, Minister of Industry and Information Technology Li Yizhong accepted the Xinhua News Agency correspondent in an exclusive interview revealed that triple play pilot program is expected in May introduced, starting in June, the core is to find an entry point into the two-way: broadcasting industry can enter some of the provisions of the telecommunications industry, business, state-owned telecom companies can enter the number of radio and television operations in accordance with regulations. "Two-way into the rule to ensure that the three networks, large integration tripartite market.

Followed by the "rule of three nets fusion of the major content providers. Triple play, multimedia, multi-level

applications demand a sharp increase. March 28, 2010, brought together China's most influential electronic information and Internet companies CEO, 2010 China (Shenzhen) IT Leadership Summit by the Shenzhen Municipal People's Government and co-sponsored by the Federation of Digital China was held in Shenzhen in the Internet industry, there Tencent Chairman Ma, Baidu Chairman and CEO Robin Li, Chairman of the Board of Alibaba Group, including Ma and Liu Shuang, CEO of Phoenix New Media and other guests attended. discussion session at the triple play, Phoenix New Media CEO Liu Shuang said, silt triple play is not only expected to break the monopoly and applications for new hardware technologies, it is Phoenix and other content supplier great opportunity, because "highway repaired, most worried about is the rule without a car run. After the network is established, the user must have to meet the demand for quality content. Content integration market will exist as an eternal theme of construction and development phase triple play them. Finally, to ensure that the final implementation of triple play "integration of the rule of end markets, whether it is mobile phone manufacturers, TV makers, computer manufacturers, terminal manufacturers or multimedia set-top box manufacturers, triple play for them would be an unprecedented attempt Taking set-top box, for example, with the deepening of the triple play, set-top box development opportunities ushered in Shenzhen, Beijing, Shanghai and other places in the operator, driven by the strong development of digital high-definition TV set-top box market is gradually warming according to research firm In- Stat's latest forecast, sales silt 2010 HD STB nationwide reach 1 million units, while sales in 2011 will rise to 500 million units in the triple play in the background, the traditional set-top box manufacturers have begun to allocate more "Ye integration capabilities.

The main measures to implement the level of information construction in Tianjin has four, the first is to strengthen the "rule of two of the integration infrastructure, in accordance with government guidance and market operation, overall planning, sharing principles, promoting the backbone transmission network and broadband wireless networking implementation of FTTH project in 2001, the Tianjin New Technology Industrial Park and China Network Communications Limited in building high-speed broadband network project --- "Hi-Tech Broadband Cyberport MCC officially opened in Huayuan Industrial Park, is" Ye paved the triple play "broadband highway MCC. The second is to actively and steadily push forward two-way broadcasting and telecommunications services into a pilot to explore policies and institutional mechanisms for the formation of the system of triple play protection orderly conduct, and promote the development of software and information services. The third is to accelerate the construction of "digital Tianjin Metallurgical, focus on promoting the digital city, digital community, digital network, digital city, digital transport, digital security, digital education, digital health, digital customs, taxation figures, figures on population, resources, and other digital files works. fourth demonstration project is to start things, accelerating the development of the networking industry, the development and application of technology to promote industrial development planning program, the development of critical sensors,

equipment, systems and services, to carry out cloud computing, cloud storage pilot accelerate smart grid demonstration projects.

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