

China: MVNO and public broadband opened to the private sector on a trial basis

InfoCom Research, Inc., Chief Consultant, Machida Kazuhisa

In China, a mobile virtual network operator (MVNO) trial is taking place, as reported in the June 2014 edition of this publication titled, "Official Start of Chinese MVNO Service: Spurred on by Diversification of Telecommunications Services and Reductions in Fees" (researcher Yanai from this firm). Subsequently, as "Part Two" of the opening of the telecommunications field to private companies, the Chinese Ministry of Industry and Information Technology (MIIT), the government body that manages ICT, formally announced at the end of December 2014 that broadband access would be opened to the private sector on a trial basis.

Introduction of private sector vitality through the opening of the wholesale business

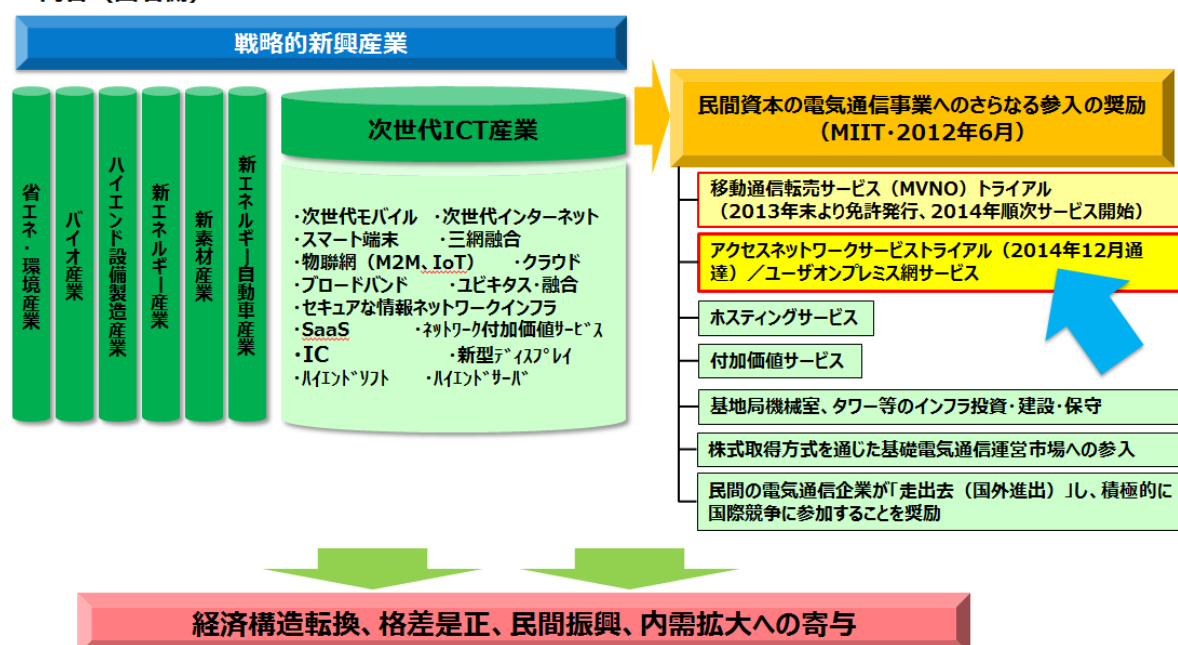
different form than that of the Japanese ICT market, it is similar in some respects. By spurring on the participation of a diverse range of players in the MVNO and the broadband wholesale business, ICT is similar in that it has also systematically issued policies and measures that may serve as drivers of economic growth.

The ICT field, which includes the telecommunications market that has been monopolized in the past by three major state-owned carriers (China Mobile, China Telecom, and China Unicom), was officially recognized in 2010 by national policy as one of the "strategic emerging industries" that will support economic growth. A policy issued by the MIIT on this basis in June 2012 titled, "Encouragement of Further Introduction of

[Figure 1] "Strategic emerging industries" and policies promoting private participation in the ICT field

While this chain of events takes a Private Capital into the Telecommunications

■ 2012年6月、工業・情報化部（MIIT）が通達した「民間資本の電気通信事業へのさらなる参入の奨励」の内容（図右側）



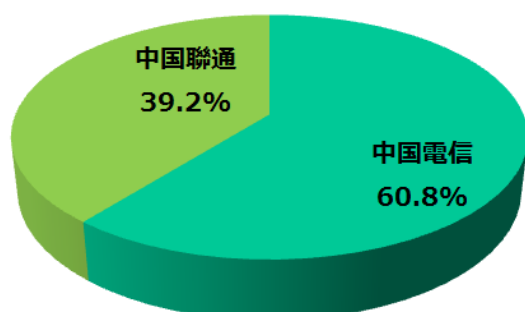
Business” clarified the specific fields that would be open to private capital, as shown in Figure 1. The purpose of this was to revitalize the Chinese economy, which has recently begun to stagnate, beginning with ICT. The first part of this plan involves implementing an MVNO trial, and by December 2014, MVNO trial permits had already been issued to 42 companies, and numerous players in the field had already begun providing services.

The broadband field, known to be monopolized by state-owned carriers

The recently announced broadband access trial is the second specific field to be opened following the MVNO. There are measures that effectively prohibit the wholesale business in the broadband access field in order to avoid excessive competition and security problems of the mid-2000s. In addition, the ISP (internet service provider) business in which private owners were already involved has shrunk as interest has shifted to content-related businesses with a relatively high degree of freedom. This has led to an increase in monopolization by state-owned carriers, a problem that has been continually pointed out for several years with reference to the Anti-Monopoly Law (which corresponds to Japan’s Antimonopoly Act).

The Chinese broadband market included approximately 200 million subscribers as of the end of November 2014 (according to the MIIT’s official numbers), with shares divided between China Telecom at 61% and China Unicom at 39% (see Figure 2). While there are a small number of players providing broadband access in addition to these two companies, they are limited to an extremely small portion of the market and do not show up in concrete statistics.

[Figure 2] The Chinese broadband access market (as of the end of November 2014)



The relationship with the “Broadband China” policy

Broadband continues to spread in China based on the “Broadband China” strategy, which was officially announced by the government in 2013. As described by MIIT management in October 2014, this plan is not necessarily going smoothly. More than a year after the implementation of the strategy, while fixed broadband has spread to 219 million households in China (as of the end of September), the growth is not necessarily high. “Broadband” includes 3G and 4G, and while the three carriers are continuing to introduce broadband services, it is difficult for services to penetrate expansive rural areas. As a result, the digital divide between rural areas and cities has been increasing. The low profitability of broadband is one of the main reasons why the market seems to lack energy, and due to this, policy support continues to be offered in order to make broadband a universal service, as it is in other countries.

Furthermore, since 2008, duplicate investment in equipment has been strictly controlled and based on the notion that equipment should be shared; efficient equipment investments as well as maximum sharing have been required. One major example is the state-owned tower firm established by the three state-owned carriers through joint funding in 2014.

Details of the trial-based opening of broadband access field to the private sector

Against the backdrop of this trend, the MIIT has announced the opening of broadband access to private businesses. The details are listed in Table 1 on the following page, and the previously described emphasis on efficient use of equipment is shown there as well.

Table 1. Details on the (trial-based) opening of the broadband access field to the private sector (selection)

Item	Details
1. Purpose of trial	<ul style="list-style-type: none"> • Develop a model of growth involving infrastructure development and service competition through construction of broadband facilities and participation in service management by an increased degree of private investment in the basic telecommunications field, innovation in broadband services, and improvement in the level of service. • Gradually develop a supervisory structure combining prior, interim, and after-the-fact regulations, and establish this as the basis of formal business activity.
2. Scope of trial services	<ul style="list-style-type: none"> • Based on FTTH national standards as well as the principles of joint construction and sharing of equipment, companies participating in the trial will be able to construct all or a portion of the wired telecommunication network equipment from the users' residences to the access server. • Reasonable lending and sale (*sale of individual functions through unbundling) of network elements will be allowed, and companies that have already obtained internet service provider (ISP) business licenses will be able to sell broadband access services to end users under their own brands. • Broadband access services belong to basic telecommunications services (*corresponding to Japan's former Type 1 carriers).
3. Cities where the trial will be implemented and the trial period	<ul style="list-style-type: none"> • There are 16 cities where the first period of the trial will be implemented: Taiyuan, Shenyang, Harbin, Shanghai, Nanjing, Hangzhou, Ningbo, Xiamen, Qingdao, Zhengzhou, Wuhan, Changsha, Guangzhou, Shenzhen, Chongqing, and Chengdu. The MIIT may add cities at any time based on the status of the trial. • The trial period is three years.
4. Parties carrying out the trial	<p>Private businesses established according to law will be the parties that conduct the trial, and participation by private companies with experience managing on-premises networks will be encouraged. The specific conditions will be as follows (partial selection).</p> <ul style="list-style-type: none"> • Must be a private company established according to law. • Must have capital appropriate to the business, with minimum registered capital of 20 million RMB and at least three years of business experience in the telecommunications industry. • Must have the ability to provide long-term service to users, and must have the necessary business locations and equipment (sales channels, customer service systems, billing systems, etc.). • Must have the ability to safeguard the network and uphold information security.
5. Licensors	<ul style="list-style-type: none"> • The MIIT and the provincial telecommunications management bureaus governing the cities implementing the trial will receive applications, conduct reviews, and issue licenses.
6. Trial requirements	<p>(1) Basic telecommunications vendors <u>may not execute agreements that include exclusivity clauses with trial companies.</u></p> <p>(2) Basic telecommunications vendors <u>may not provide bandwidth resources of lower quality than the company's own services to trial companies.</u></p> <p>(3) Basic telecommunications vendors must set access prices for bandwidth resources based on the principle of fair, reasonable, and impartial discussions with trial companies.</p> <p>(4) In constructing wired telecommunications network facilities, the trial companies must strictly abide by the relevant regulations regarding telecommunications works, including the "Notification of Implementation of FTTH National Standards" and the "Regulations on FTTH Equipment Installation and Inspection in Housing Complexes and Residential Structures." In addition, <u>policies and regulations such as those concerning the joint construction/sharing of infrastructure facilities and the maintenance of telecommunications facilities must be upheld, agreements including exclusivity clauses with third parties such as specific real estate businesses and developers must not be executed, and users' freedom of choice must be guaranteed.</u></p> <p>(5) In providing services to users, trial companies must strictly uphold relevant industry standards and management requirements and they must execute service agreements with users. The contracts must specify the contracted access speed, fees, and methods for reimbursement of prepaid fees prior to the ending of operations by the trial company and for the handling of dispute resolution.</p> <p>(6) Trial companies, <u>when connecting to the Internet backbone, must do so through the WAN of a basic telecommunications carrier and they are strictly prohibited from directly connecting to service nodes in different cities and from reselling borrowed access network resources.</u> In addition to reporting the scope of access network construction and connection node placements to provincial telecommunications management bureaus in the applicable regions, the companies must cooperate with the network and any information security activities conducted by the relevant departments.</p> <p>(7) Problems concerning service quality that occur between the trial companies and users will be handled by the complaint center at</p>

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Item	Details
7. Other	<p>(1) The trial company must comply with the requirements of the provincial telecommunications management bureaus and provide monthly reports on the status of its business operations. The provincial telecommunications management bureaus in the applicable regions must provide monthly reports on the progress of the trial to the MIIT.</p> <p>(2) Trial companies <u>may, like basic telecommunications carriers, participate in broadband model projects and universal service activities such as “Broadband China,” and they may take advantage of related policies.</u></p> <p>(3) In the event that a trial company violates a law or regulation during the trial period, the company will receive appropriate punishment in accordance with the law.</p> <p>(4) The MIIT will make timely adjustments to related policies based on the trial development, and it will consider the formal business use of broadband access services.</p> <p>(5) The trial <u>will be implemented beginning on March 1, 2015.</u></p>

Regarding the notification in Table 1, it is important to note that in comparison with the MVNO trial, the trial period has been increased from two to three years. It is easy to speculate that this is due to the possibility that the market will not take as much interest in broadband as it has in MVNO. In addition, for national security purposes, connections to the Internet backbone must be made through the basic telecommunications carriers (i.e., the three state-owned carriers, which correspond to Japan’s former Type I carriers) and be clearly governed by restrictions that are unique to China.

Furthermore, as seen in the MIIT notification documents from the time that the MVNO trial began, no mention is made of specific handling methods for foreign investment regarding the definition of “private business.” The MVNO trial is basically only open to private businesses registered in China, but there are cases in which foreign investment is indirectly involved through unique Chinese funding methods. The opening of the broadband access field will also likely follow this precedent.

Policy promoted along with easing of various restrictions

Along with the opening of broadband access to the private sector, it is important to note that related systematic changes are occurring at the same time. In addition to the notification on January 13, 2015 that the online data processing field limited to the free trade zone established in Pudong, Shanghai would be 100% open to foreign investment. A total of 36 cities had been announced as “Model

Information Consumption Cities” by the 4th of the same month under the second phase of the ICT usage, and promotion policy enacted at the regional level by the government (50 cities were designated in the first phase). “Model Information Consumption Cities” is a policy announced by the MIIT in the fall of 2013, under which such cities receive policy support and are the first to benefit from construction of ICT infrastructure, service development, and smart and cloud technology in various areas, with the intention of turning them into outstanding examples for other cities to emulate. The opening of broadband and MVNO to the private sector will most likely bear its first fruit when these policies come into play synergistically.

Lessons for Japan?

As stated in the introduction, the Chinese mobile and broadband markets seem to be headed in the same general direction as the MVNO market revitalization policy and the “Hikari Collaboration” being promoted by NTT in Japan. This is in addition to the attempts to overcome the social challenges by using ICT to its fullest potential as a driver and catalyst. While more attention tends to be paid to the scale and the speed of growth on the Japanese side, the Chinese ICT market is not often considered from the perspective described above. As Chinese society rapidly matures, it shares a number of challenges with Japan, such as a low birth rate and an aging population. The “Model Information Consumption Cities” policy discussed above in some respects resemble the application of ICT under the “special economic zone” framework and the movement toward “regional innovation” in Japan. Considering that the purpose of the policy is to

position ICT as the driver of economic growth and to revitalize the economy by connecting those involved in the industry, various movements that are unique to China (in that they are somewhat abrupt and conducted in a short period of time) can be seen in the positive sense as policy-based market innovations. It is possible that, just as there was once a period in which China looked to the Japanese telecommunications market for an example, there may be some series of recent aspects of the Chinese market that can serve as an example to Japan in the future. This author, for one, believes that it is necessary in this sense to look more closely at the actions taken by our neighbor.

About ICR

Name	InfoCom Research, Inc.
Address	Head Office: Tokyo Address: Urban Net Nihonbashi Bldg., 2-14-10 Nihonbashi Ningyo-cho, Chuo-ku, Tokyo Japan 103-0013
Establishment	1985.6.18
Capital Money	100 mil. Yen
Stockholder	NTT, NTT Docomo, NTT COMWARE
Representatives	Toyoaki Ukita (President/Representative Director)
Personnel	82 full-time employees 76 full-time researchers
Nature of Operations	<ol style="list-style-type: none">1 Global research regarding the information and communications industries2 Research and analysis regarding information/communication-related markets (e.g. Internet, e-commerce)3 Proposal and formulation of regional IT plans and consulting in connection therewith4 Consulting and research related to information system development5 Formulation of management strategy and consulting in connection therewith6 Various information provision services pertaining to information/commu

Contact: planning@icr.co.jp

URL: <http://www.icr.co.jp/>