China ~
The Value Add

This whitepaper is an extract from:

Mobile China
3G Content Strategies & Forecasts
2007-2012

. . . information you can do business with
China ~ The Value Add

Introduction

In the past five years, as one of the country’s ‘pillar industry’, China’s telecom service industry has grown at a faster rate than the Country’s GDP (See Table 1). According to official statistics from the Ministry Information of Industry (MII), revenue from basic telecom service contributes approximately 2.1% of the country’s GDP, whilst value added telecom services contribute a further 3.5% to total GDP (see Table 2).

Table 1: Telecom Revenue Growth Rate vs GDP Growth Rate in China (%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP Growth Rate</td>
<td>8.3%</td>
<td>9.10%</td>
<td>10.0%</td>
<td>10.10%</td>
<td>9.90%</td>
</tr>
<tr>
<td>Telecom Revenue Growth Rate</td>
<td>16.10%</td>
<td>13.50%</td>
<td>13.80%</td>
<td>14.10%</td>
<td>11.40%</td>
</tr>
</tbody>
</table>

Source: MII

Table 2: Basic Telecommunications & VAS Telecommunications Revenue Growth Rate vs GDP(%)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Telecommunications Service Revenue vs GDP</td>
<td>2.00%</td>
<td>2.11%</td>
<td>2.31%</td>
<td>2.19%</td>
<td>2.10%</td>
</tr>
<tr>
<td>VAS Telecommunications Revenue Growth Rate vs GDP</td>
<td>3.39%</td>
<td>3.51%</td>
<td>3.39%</td>
<td>3.30%</td>
<td>3.20%</td>
</tr>
</tbody>
</table>

Source: MII

China’s telecommunication industry has witnessed significant growth in both the wireline and wireless sectors over the past decade; the latter averaging an annual growth rate of approximately 13.5%. By the end of 2006, the number of mobile phone users reached 443.6m, exceeding the fixed line subscription base of 93.27m.
Use of the Internet in China has also grown at a phenomenal pace. According to the annual survey conducted by China Internet Network Information Centre (CNNIC), the state network information centre that in 2006, Internet users stood at 137 million. 52.19% using broadband connect method for accessing Internet.

**Figure 1: Growth of Subscribers (m) 2001 – 2006**

![Graph showing growth of subscribers from 2001 to 2006.](source)

**Source: MII, Juniper Research**

### Market Drivers

Market drivers for the development of 3G include:

- Declining revenue growth rate for domestic Chinese telecommunication service carriers
- Declining ARPU and ARPM and
- Technology convergence and development of Value Added Services

The current rate of development of Information Communication Technology (ICT) allows different technologies to work across different technological platforms. This has contributed to a proliferation of companies working across various sub-sectors of the industry, offering value added products and services by combining two or more technologies operating across different platforms. For example, value added services including SMS, MMS and Colour Ring Tones; applications which work across both the Internet and mobile phone handsets. The significant growth of China’s mobile phone subscription base and Internet users, the two dominate user groups in both wire-line and wireless sectors represent a potentially significant market opportunity for value added services; in particular for content and applications providers. For example, SMS volumes achieved 304.67bn and 429.67bn in 2005 and 2006 respectively.
The Regulatory Landscape

Multi-Government Control

The industry is administered by the Ministry of Information Industry, former Ministry of Post and Telecommunications (MPT) which is now widely known as MII, the principle government regulator of the telecom service market. The administrative functions of MII include:

- Formulating and implementing telecommunications industry policy, standards and regulations;
- Supervising the enforcement of policies and regulations related to information equipment, products and services;
- Issuing licenses for the provision of telecommunications and Internet services;
- Supervising the operations of the telecommunications and Internet service markets; monitoring services quality and ensuring fair competition.

Whereas MII is the leading regulator for China’s telecom industry, SARFT is the major regulator for supervising the operation of China’s radio, film and TV industries. The Ministry of Culture is also involved in granting licenses for culture-related content distributed on the Internet. Other regulators also include the Ministry of Education and Security Bureau for services and content offerings associated with delivery on-line. Furthermore, there are other administrative bureaus at provincial or local branch level which will also be involved in different aspects of the administration and regulation of business operations.

Two categories of telecommunications services

In China, telecommunications services are divided into two categories:

- basic telecommunications services
- value-added telecommunication services

Wireless value added services are classified as value added telecommunications businesses.

Following China’s accession to the WTO in 2001, the VAS market was opened to foreign participation on a progressive basis. According to the WTO agreement, the maximum foreign investment in the country’s telecommunications industry cannot exceed a 49% share in an individual telecom company; primarily to ensure enterprises remain in Chinese control. For the Value Added Services sector, foreign ownership is capped at 50% on an “accumulative basis for investment”. Table below illustrates the Government’s commitment under its agreed schedule to the WTO’s general Agreement on Trade in Services (GATS):
Table 3: China’s Commitments on Foreign Direct Investment in Telecommunications under its WTO Service Schedule

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Percentage and geographic coverage of foreign investment permitted (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic telecom services-fixed</td>
<td>25% in Beijing, Shanghai and Guangzhou</td>
</tr>
<tr>
<td>Basic telecom services-mobile</td>
<td>25% in Beijing, Shanghai and Guangzhou</td>
</tr>
<tr>
<td>Value-added Services and paging services</td>
<td>30% in Beijing, Shanghai and Guangzhou</td>
</tr>
</tbody>
</table>

Source: World Trade Organisation

3G Standards

At present, there are three competing standards for the launch of 3G in China:

- WCDM, the US network standard developed by Ericsson and Nokia;
- CDMA 2000, the European standard developed by Qualcomm; and
- TD-SCDMA, China’s home-grown network system.

Given the importance and long-term vision for the development of TD-SCDMA, China will not release 3G licenses until TD-SCDMA is fully completed. Although the schedule for the issue of licenses will be announced by MII, the final decision on 3G deployment will be made at the top levels of government. Key decision makers include the National Development and Reform Commission (NDRC), the powerful State-Owned Assets Supervision and Administration Commission of the State Council (SASAC), the Ministry of Science and Technology (MOST), MII and finally the Premier’s Office. Hence the development of TD-SCDMA has not only long-term economic implications, but is also dependant on political support from the government.

All four major Chinese telecom operators – China Mobile, China Unicom, China Telecom and China Netcom are expected to receive 3G licences. By 2009, the market share for each of the three standards is estimated at 15% for TD-SCDMA, 20% for CDMA with the bulk (60%) going to WCDMA (as shown in Figure below).
Major Operators

There are six Chinese telecom operators:

- China Mobile  (mobile sector)
- China Unicom  (mobile sector; to date the only licensed full telecommunications service provider)
- China Telecom (fixed-line business)
- China Netcom  (fixed-line business)
- China Tietong (formally known as China Railcom, a much smaller operator)
- China Satellite (specialises in providing all types of satellite related services such as transponders and satellite-based internet access service)

China Mobile and China Unicom are the two operators of mobile related businesses in China, with the former holding almost 66% of the Chinese mobile market. Both China Mobile and China Unicom provide mobile value added services through their own Internet portals: Monternet and Uni-Info. China Telecom has a major presence in the wire-line sector, owning 70% of the country’s network infrastructure, with China Netcom taking the remaining 30%. China Tietong is the second smallest telecom operator, China Satellite being the smallest. As the name suggests, the latter specialises in satellite related services and also provides services to the other five-telecom operators.

The four large telecom operators are expected to receive 3G licences whilst the two smaller companies (China Tietong and China Satellite) are highly unlikely to receive a 3G license until they merge with other larger telecom service companies in China. A further round of restructuring in the industry following the issuance and distribution of 3G licences is therefore likely.
**W-VAS Content Delivery Model**

The current mobile content delivery model is heavily associated with two platforms operated by the two major mobile telcom carriers:

- Monternet, operated by China Mobile; and
- Uni-Info, operated by China Unicom.

Monternet and Un-Info both mirror NTTDoCoMo’s business model and adopt very similar business and revenue sharing practices, the latter offering services on a slightly cheaper scale. Their business models are depicted in figure below:

*Figure 3: The Monternet & Uni-Info Business Model – Revenue Share*

* The model is based on a split between the operator and service providers.
* For China Mobile, it is either 91% vs 9% or 85% vs 15% dependent upon which party takes responsibility for billing end users. The operator takes a smaller proportion of the split.
* For China Unicom, it is generally 90% vs 10% with service providers retaining the majority 90%.

Broadly, “Major Players in WVAS in China” can be divided into three categories:

1. Wireless Internet portals which provide all wireless value-added products to all users;
2. “Pure players” which focus on providing VAS products to mobile phone users; and
3. Small WVAS players.

In addition to the major portals operated by the carriers (Monternet and Uni-Info) there is a number of large NASDAQ listed Internet portals providing WVAS content such as Sina, Sohu and NetEase. There are also four “pure” players: Tom Online, Linktone, Hurray! and Kongzhong, which dominate the market for WVAS products for mobile phone users. Furthermore, there are thousands of small players who are actively competing for market opportunities. Juniper Research reveals that the large Internet portals revenue streams lie in online advertising and Internet gaming whilst pure players have adopted a more diverse strategy; chiefly by product mix, distribution channels and operator relationships. The four ‘pure’ players have different strengths and are now focusing on reducing their dependence on their
relationships with China Mobile and China Unicom; largely due to the changing landscape of the marketplace.

**Market Opportunities**

**Hot Applications**

Market forecasts are primarily drawn from extensive secondary research and material from first hand discussion with key industry experts. Insights gathered from industry participants during interviews contribute greatly to the analysis and market forecasts; particularly in those areas where there is no historical or comparable market in which the potential emerging 3G products can be applied. Under such circumstances, migration patterns for new services and applications from other regions or countries are also used as references for future potential.

Juniper Research projects that the W-VAS market in China will reach $15bn in 2008; rising to $21bn in 2012. Juniper research predicts by 2012 3G will account for some 19% of total W-VAS services. The forthcoming launch of 3G will see new areas of growth with particular emphasis on music, games and streamed video.

**Market Forecasts and Future Outlook**

Market drivers, constraints, development issues, market forecast and value chains for each projected hot applications are discussed in detail in this report. A key to market access is to have a firm grasp of the potential hurdles and problems. As an emerging economy in transition, China presents a greatly different operating environment compared to those in the US and European countries; in which a government has greater involvement in all aspects of industry development. The trend amongst wireless value-added service providers has been one of diversification of revenue streams and product offerings.

In 2004, China initiated “triple play”, an initiative which promotes development of the broadband, digital television and “next” generation networks and seeks to accelerate convergence of all three media. Triple play represents the government’s strategic vision and determination to take technological development to the next stage. It is not wild thinking that in a five years time, 4G will be introduced to China as preliminary discussions have already taken place. For example, in December 2006 China hosted its third 4G conference in Hong Kong. China has huge potential for all parties involved in the telecom services industry.

Looking beyond the content and application providing sector, Juniper further provides a series of case studies of different organisations in leveraging their global resources in technological innovation and Chinese manufacturing capabilities to maximise competitiveness in the market. As a major emerging market for the world telecom industry, China provides a potentially significant market for all players in this industry.

Dr Elisa Kuang states that “Providers of 3G applications and content have a unique opportunity to tap into this vast new market but are advised to carefully craft coherent market entry and development strategies – ones that appreciate China’s unique economic culture and business systems; an emerging economy in transition.”
Order the Full Report

Mobile China:
3G Content Strategies & Forecasts 2007-2012

This report has a strong strategic focus providing readers with insights on market conditions, opportunities and strategies for market entry for foreign participants in application and content-providing for China's 3G users. The report further provides recommendations and advice on potential problems and critical issues such as IP protection, different business systems and the influence of Chinese business culture and economic systems as well as discussing market entry models and the future outlook for China's telecom industry. Juniper provides a review of three forms of entering the China market, viz: Representative Office, Joint Venture and Wholly Owned Foreign Enterprise (WOFE) and recommends which business model will be best for large organisations as well as partnerships and small participants with limited funding and resources. Forecasts are included to 2012.

For more details on this report visit the website www.juniperresearch.com or phone +44 (0)1256 830002.

Juniper Research Limited

Juniper Research specialises in providing high quality analytical research reports and consultancy services to the telecoms industry. We have particular expertise in the mobile, wireless, broadband and IP-convergence sectors. Juniper is independent, unbiased, and able to draw from experienced senior managers with proven track records.

About the Author

Dr Elisa Kuang is an Analyst with Juniper Research. She has considerable experience in market intelligence, competitor analysis and international marketing, with particular emphasis on the expanding Chinese market. Elisa has a Communications degree and a doctorate in Business Administration. Elisa speaks fluent English, Mandarin and Cantonese.

Publication Details

Publication date: June 2007

For more information, please contact:
Michele Ince, General Manager michele.ince@juniperresearch.com
Juniper Research Limited, Wakeford Farm Business Park, Pamber End Tadley, Basingstoke, Hampshire RG26 5QN

Tel: +44 (0)1256 830002/889555 Fax: +44 (0) 8707 622426

Further whitepapers can be downloaded at http://www.juniperresearch.com