To coincide with the launch of ITU TELECOM Asia 2000, the ITU has published the 4th edition of Asia-Pacific Telecommunication Indicators.

When the first edition came out in 1993, the Asia-Pacific region accounted for around one-quarter of the world’s fixed-telephone lines and around one-sixth of mobile users. Now, at the dawning of a new millennium, the Asia-Pacific region accounts for one-third of the world market. By the end of this decade, two out of every three new telephones and mobilephones will be sold to an Asian.

In this new edition, we focus on three themes that have dominated the telecommunications landscape in the closing years of the 20th Century: the liberalization of telecommunication markets, the emergence of wireless communications to the point where mobilephone users will soon outnumber fixed-line ones; and the rise of the Internet. In all three areas, the region is already setting the pace, notably in the move towards converged regulators, covering both the telecommunications and the Information Technology sectors, and in the development of advanced mobile services. In Hongkong SAR, we have seen the world’s first example of an incumbent telephone company being acquired by an Internet start-up. It will not be the last.

The last decade of the 20th Century contained the seeds of the 21st Century. In the 1990s, the Asia-Pacific region emerged as the economic powerhouse of the coming millennium. The populations of the economies that circle the Pacific Ocean are younger, more dynamic and more entrepreneurial than those that surround the Atlantic Ocean. History, economics and demography are on their side.

By the end of the current decade, the Asia-Pacific region will represent close to half of the total world market for telecommunications. Countries that currently have a teledensity (telephone lines per 100 inhabitants) in the range of 5 to 10 (such as China or Thailand) will have a teledensity over 30 by 2010, and those that are currently in the 1 to 5 range (such as India or Viet Nam) will have a teledensity above 15. In all of those countries, ownership of mobiles will exceed that of fixed-lines, which means that a majority of families in those countries will have access to telecommunications in some form or other. The simple demographics of the Asia-Pacific region dictate that no company involved in the business can afford not to be interested in the region.

**Figure 1: The changing balance of power**
Regional shares of fixed telephone lines, worldwide, on 1st January 1990, 2000 and (forecast) 2010

Source: ITU World Telecommunication Indicators Database and ITU forecasts.
Asia-Pacific is also becoming a major player in the Internet scene. Half of the top ten Internet markets are in the region (see Figure 2) and, after North America, Asia-Pacific has the highest number of Internauts (around 70 million at the beginning of the year 2000).

The region’s traditional telecom operators are also leading ISPs in most economies (among the top ten operators, all but one are also ISPs). In selected markets, their ISP market share ranges from around one quarter to over half. Though pure Internet access revenues are still low, around two per cent on average, they are rising. In addition, Public Telecommunication Operators are also earning revenue from the demand for high speed lines, advertising and e-commerce transaction fees.

Overall, the top 20 Public Telecommunication Operators in the region generated revenue of more than US$ 200 billion in 1999, an increase of 10 per cent over the previous year and an increase, in US dollar terms, of 35 per cent since 1996 (see Table 1).

In addition to the market overview and analysis, this report also presents the latest available comparative telecommunication indicators for the region as well as a directory of the region’s service providers, policymakers and regulatory agencies. This book should become an indispensable guide for those looking to invest in the region as well as for those trying to make sense of the daily-changing trends in the market.

![Figure 2: World’s top Internet markets](image)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Economy</th>
<th>Users, June 2000, millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Taiwan-China</td>
<td>6.4</td>
</tr>
<tr>
<td>2</td>
<td>Australia</td>
<td>6.4</td>
</tr>
<tr>
<td>3</td>
<td>Germany</td>
<td>8.7</td>
</tr>
<tr>
<td>4</td>
<td>UK</td>
<td>10.6</td>
</tr>
<tr>
<td>5</td>
<td>Italy</td>
<td>11.1</td>
</tr>
<tr>
<td>6</td>
<td>Canada</td>
<td>11.9</td>
</tr>
<tr>
<td>7</td>
<td>Korea (Rep.)</td>
<td>15.8</td>
</tr>
<tr>
<td>8</td>
<td>China</td>
<td>16.9</td>
</tr>
<tr>
<td>9</td>
<td>Japan</td>
<td>26.3</td>
</tr>
<tr>
<td>10</td>
<td>USA</td>
<td>83.8</td>
</tr>
</tbody>
</table>

Source: ITU adapted from national statistics, e-Ratings and MMXI.

For further information and to purchase the report, please contact:
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CH-1211 Geneva 20 - Switzerland

See the ITU web site at: [http://www.itu.int/ti/index.htm](http://www.itu.int/ti/index.htm)

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E-mail: sales@itu.int

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**Table 1: Top 20 Asia Pacific Public Telecommunication Operators**

*Ranked by 1999 Revenue*

<table>
<thead>
<tr>
<th>PTO</th>
<th>Total revenue</th>
<th>Net income</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total US$ m</td>
<td>Change</td>
<td>US$ m</td>
</tr>
<tr>
<td></td>
<td>1999</td>
<td>%</td>
<td>1999</td>
</tr>
<tr>
<td>NTT (Japan) a</td>
<td>9'7953</td>
<td>6.7%</td>
<td>2'821</td>
</tr>
<tr>
<td>China Telecom f</td>
<td>2'7'540</td>
<td>14.5%</td>
<td>n.a.</td>
</tr>
<tr>
<td>DDI (Japan) a h</td>
<td>14'375</td>
<td>22.4%</td>
<td>-99</td>
</tr>
<tr>
<td>Telstra (Australia) b</td>
<td>12'044</td>
<td>5.3%</td>
<td>2'306</td>
</tr>
<tr>
<td>Korea Telecom</td>
<td>10'375</td>
<td>15.8%</td>
<td>337</td>
</tr>
<tr>
<td>Chungwa Telecom</td>
<td>6'146</td>
<td>6.6%</td>
<td>1'604</td>
</tr>
<tr>
<td>KDD (Japan) a h</td>
<td>5'635</td>
<td>47.2%</td>
<td>69</td>
</tr>
<tr>
<td>Japan Telecom a</td>
<td>4'418</td>
<td>9.6%</td>
<td>155</td>
</tr>
<tr>
<td>DOT (India) c</td>
<td>4'096</td>
<td>20.9%</td>
<td>2'471</td>
</tr>
<tr>
<td>Cable &amp; Wireless HKT</td>
<td>3'620</td>
<td>-12.7%</td>
<td>148</td>
</tr>
<tr>
<td>Hong Kong SAR a g</td>
<td>3'604</td>
<td>20.9%</td>
<td>256</td>
</tr>
<tr>
<td>SK Telecom (Korea) (Rep.)</td>
<td>2'879</td>
<td>15.3%</td>
<td>1'096</td>
</tr>
<tr>
<td>Singapore Telecom a</td>
<td>2'653</td>
<td>28.5%</td>
<td>117</td>
</tr>
<tr>
<td>Optus (Australia) a</td>
<td>2'107</td>
<td>24.4%</td>
<td>101</td>
</tr>
<tr>
<td>Unicom (China)</td>
<td>2'061</td>
<td>-1.8%</td>
<td>216</td>
</tr>
<tr>
<td>Telkom Malaysia</td>
<td>1'825</td>
<td>1.5%</td>
<td>465</td>
</tr>
<tr>
<td>Telecom New Zealand c</td>
<td>1'746</td>
<td>21.6%</td>
<td>123</td>
</tr>
<tr>
<td>TCI (Iran) d</td>
<td>1'679</td>
<td>0.8%</td>
<td>195</td>
</tr>
<tr>
<td>VSNL (India) a</td>
<td>1'253</td>
<td>-10.0%</td>
<td>51</td>
</tr>
<tr>
<td>TOT (Thailand) e</td>
<td>1'169</td>
<td>8.1%</td>
<td>301</td>
</tr>
</tbody>
</table>

**TOP 20**

<table>
<thead>
<tr>
<th>Total revenue</th>
<th>Change</th>
<th>Net income</th>
<th>Change</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>207'189</td>
<td>10.3%</td>
<td>12'788</td>
<td>-17.8%</td>
<td>1'533</td>
</tr>
</tbody>
</table>

Note: Converted to US$ by operator supplied exchange rates or annual average rate.

a. Year beginning 1 April 1999.
c. Year ending 31 March 1999.

h. KDD, DDI and a Japanese cellular operator, IDO, merged their activities to form KDDI on 1st October 2000.


d. Year ending 21 March 1999.

e. Year ending 30 September 1999.

c. Year beginning 1 April 1999.

Source: ITU Public Telecommunication Operators Database.