Telekom and Internet Market in Serbia: Challenges and Opportunity

prof. Miodrag Ivkovic, PhD
Jelena Pantelic, BSc
Serbia in facts

- Population: 7,498,001 (M: 48.63%, F: 51.37%)
- Average society age: 40.25
- Workforce: 5,032,805
- GDP per capita: 3.272,6 EUR
- The value of import: USD 18,350,4 million
- The value of export: USD 8,824,9 million
ICT market trends in Serbia

37% IT market growth 10% Telecom market growth

sources: Serbian Chamber of commerce and RATEL
Serbian IT market, July 2008

- 5952 registered employees in the sector
- Estimated revenue of IT sector in Serbia: cca. $500 mil
- IT companies and entrepreneurs in Serbia:

<table>
<thead>
<tr>
<th>No. of entrepreneurs</th>
<th>No. of companies</th>
<th>Type of activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>188</td>
<td>70</td>
<td>Consulting in computer equipment</td>
</tr>
<tr>
<td>685</td>
<td>881</td>
<td>Consulting in computer software</td>
</tr>
<tr>
<td>385</td>
<td>117</td>
<td>Data processing and analysis</td>
</tr>
<tr>
<td>108</td>
<td>109</td>
<td>Database design</td>
</tr>
<tr>
<td>689</td>
<td>266</td>
<td>Maintenance and repair of computer and office equipment</td>
</tr>
<tr>
<td>162</td>
<td>154</td>
<td>Other computer related activities</td>
</tr>
<tr>
<td><strong>2217</strong></td>
<td><strong>1527</strong></td>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>
Telecom sector in Serbia: mobile market

- Over 4.65 million people uses mobile phones
- 3 mobile providers: MT:S, Telenor and VIP mobile
- Total revenue in 2007: €839.6 millions (€583 millions in 2006)
- Total investment in 2007: €210 millions (€103 millions in 2006)
- Number of accounts (numbers in use):
  - prepaid (cca. 6.700.000)
  - postpaid (cca. 1.500.000)
- Penetration rate in 2007: 112.73%

Source: RATEL (Republic Agency for Telecommunication)
Telecom sector in Serbia: fixed telephony market

- 1 service provider: Telekom Srbija
- Total revenue in 2007: €411,6 millions
- Total investment in 2007: €166 millions (€62 million in 2006)
- Digitalization rate: 93,3%.
- Penetration rate in 2007: 38%
ICT in Serbia: market research results for 2008 (Statistical Office)

- 97.7% of enterprises use computers in their business
  100% (>250), 98.9% (50-249), 96.9% (<50)

- 43.5% Wireless LAN
- 12.7% Extranet
- 10% have and use ERP (one of indicators on sophistication of usage of ICT in EU enterprises)
- 11.9% use CRM for customer data analysis
ICT in Serbia: Internet usage in enterprises

• 91.5% of enterprises have Internet connection
  96.8% (>250), 96.1% (50-249), 89.9% (<50)
  Banks and insurance companies (100%)
  Real estate agencies (98.2%)
  Hotels, camps, hostels (97.6%)

• 57% of enterprises with Internet connection use DSL (xDSL, ADSL) connection

• 68.9% of enterprises with Internet connection have their Website
  83.9% (>250), 76.1% (50-249), 65.7% (<50)
  Banks and insurance companies (100%)
  Manufacturing (76.6%)

ICT in Serbia: e-business in enterprises

- 20.8% of enterprises with Internet connection ordered products/services via Internet
  - 18.6% (>250), 16.2% (50-249), 22.2% (<50)

- Participation of Internet orders in total orders

- 17% of enterprises with Internet connection were receiving orders via Internet

ICT in Serbia: computer usage for public administration services

• Over 260,000 people use public administration services via Internet
• 12.7% of examinees use Internet services of public administration, while 58% are interested, but still don’t use it
• Purpose/service obtained:
  92.4% just obtained various information from public administration websites
  71.1% downloaded official forms
  57.4% had sent filled forms via Internet into further procedures

ICT in Serbia: computer and Internet usage in households

- 40.8% have a PC
- 5.8% have a lap top
- 33.2% have Internet connection
  - 51.1% modem; 24.4% DSL (ADSL);
  - 23.2% cable Internet; 15.5% WAP i GPRS (broadband connection)
- Over 1.900.000 people uses computer on a daily basis

ICT in Serbia: computer usage for e-business services

• During the last year, over 250,000 people had purchased or ordered goods/services via Internet
• 86.3% of Internet users never purchased or ordered goods/services via Internet
• Type of goods/services purchased or ordered:
  Books/magazines/newspaper (32%)
  Computer software and plug-ins and modules (30.4%)
  Electronic devices (incl. cameras) (26.3%)
  Clothes and sport equipment (20.4%)
  Movies, music (13.3%)
  Household equipment (13.1%)
  Computer hardware (10.7%)

Telecom sector in Serbia: the market

Revenue distribution

- Fixed: 28%
- Mobile: 57%
- Internet: 10%
- CDS: 1%
- Radio: 4%

Source: RATEL on 31.12.2007

Total revenue cca. €1,47 billion (10% more than in 2006)
State of the art: fixed telephony

- 93.31% digitalization rate (EU 100%)
- 34.7% penetration rate (2.85M accounts) < EU 45%
- Over 350000 new account requests,
- Cable network ~ 550000 accounts
- Broadband access ~250000 accounts
State of the art: mobile telephony

- 8.45 million users
- Three service providers – Telekom Srbija, Telenor and Mobilcom Austria (VIP, since July 2007)
- Penetration rate over 112.73%,
- Territory coverage: MT:S – 91.31%, Telenor – 81%, VIP – 18%
- Population coverage: MT:S – 97%, Telenor – 92%, VIP – 40%
- 44.25% increase in revenue of the sector
State of the art: Internet

- Over 160 Internet service providers
- Outgoing bandwidth ~20Gb/s
- ADSL over 240000
- WiFi usage over 20000
- Prices/capacities
State of the art: CDS

- Over 60 service providers
- Over 40% SBB
- Bigger providers offer Internet access as well
- Satellite access
<table>
<thead>
<tr>
<th>RANG</th>
<th>D</th>
<th>S</th>
<th>V</th>
<th>FIRMA</th>
<th>AKTIVA</th>
<th>KAPITAL</th>
<th>DOBIT</th>
<th>POLOVNI PRIHOD</th>
<th>BROJ Zaposlenih</th>
<th>PROFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>TELEKOM SRBIJA</td>
<td>107,989,638</td>
<td>90,722,627</td>
<td>9,949,575</td>
<td>50,276,865</td>
<td>11,650</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>NAFTNA INDUSTRIJA SRBIJE</td>
<td>120,508,498</td>
<td>87,984,517</td>
<td>6,277,992</td>
<td>251,019,335</td>
<td>15,131</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>SRBIJAGAS</td>
<td>24,518,399</td>
<td>11,315,350</td>
<td>3,816,587</td>
<td>20,771,674</td>
<td>1,038</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>SRBIJA JPPTT</td>
<td>84,981,225</td>
<td>81,179,517</td>
<td>2,812,756</td>
<td>13,527,590</td>
<td>17,105</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>ELEKTRODISTRIBUCIJA-BEOGRAD</td>
<td>20,529,344</td>
<td>22,525,446</td>
<td>2,181,092</td>
<td>19,637,948</td>
<td>2,058</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>GALENIKA</td>
<td>5,760,475</td>
<td>10,048,174</td>
<td>1,927,765</td>
<td>5,757,949</td>
<td>2,792</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>TETRA PAK PRODUCTION</td>
<td>1,180,804</td>
<td>1,967,289</td>
<td>1,783,390</td>
<td>7,914,414</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>TARKETT</td>
<td>3,058,692</td>
<td>5,292,209</td>
<td>1,680,855</td>
<td>6,341,637</td>
<td>333</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>DELTA MAXI</td>
<td>6,743,962</td>
<td>4,450,485</td>
<td>1,655,465</td>
<td>18,771,697</td>
<td>3,274</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>2</td>
<td>3</td>
<td>ASTRA SIMIT</td>
<td>2,084,361</td>
<td>2,393,205</td>
<td>1,617,308</td>
<td>10,309,450</td>
<td>216</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>ELEKTRODISTRIBUCIJA NIŠ</td>
<td>7,373,260</td>
<td>4,416,703</td>
<td>1,606,919</td>
<td>4,950,203</td>
<td>918</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>ELEKTROSRSBIJA DOO KRALJEVO</td>
<td>27,841,225</td>
<td>26,673,075</td>
<td>1,579,394</td>
<td>15,157,856</td>
<td>3,063</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>HEMOFARM</td>
<td>11,690,354</td>
<td>10,609,329</td>
<td>1,547,456</td>
<td>11,853,178</td>
<td>1,651</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>INVEJ</td>
<td>6,713,304</td>
<td>4,791,556</td>
<td>1,320,603</td>
<td>5,917,809</td>
<td>139</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>RUDARSKI BASEN KOLUBARA</td>
<td>43,029,661</td>
<td>32,055,772</td>
<td>1,311,323</td>
<td>21,359,615</td>
<td>13,511</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>JAVOR</td>
<td>333,687</td>
<td>-</td>
<td>1,235,808</td>
<td>355,460</td>
<td>956</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>SWISSLION-TAKOVO</td>
<td>6,877,997</td>
<td>5,006,236</td>
<td>1,210,140</td>
<td>17,978,363</td>
<td>1,662</td>
<td></td>
</tr>
</tbody>
</table>
Telekom Srbija – customers

- Ownership structure: 80% Telekom Srbija, 20% OTE
- Operates in Serbia, Bosina and Hercegovina and Montenegro
- 93.3% of telecom network digitalization
  - Total number of customers
    - 3,151,584 installed subscribers’ lines in fixed telephony
    - 4,535,000 mobile telephony
    - 240,000 ADSL
- Leader in the introduction of new services in fixed and mobile telephony
Telekom Srbija – key services

- Fixed telephony
  - Standard telephone line
  - ISDN BRI and PRI
- Data transfer
  - Frame Relay/ATM network
  - Leased digital lines (nx64)
  - MPLS services (L2VPN, L3VPN)
- Internet (dial up, ADSL, direct Internet access)
- IN services
- Telehousing
- IPTV
- IP centrix
- VSAT
- WiMAX in progress
- Prepaid telephone cards, yellow and white pages,
- Printing centre services
IT market challenges/opportunities

• Cooperation with international companies/environment
• e-commerce
• Software industry
• Remote services: call centers, customer support
Telecommunication sector: Opportunities for investors

- Introduction of new technologies (WiMax, optic) in access networks
- Transport networks
- Tele centres?
- CDS network expansion
- New services
Top ICT companies in Serbia

1. Telekom Srbija
2. Telenor
3. ComTrade Group
4. SAGA

SMEs

4. PEXIM
5. Microsoft software
6. Oracle
7. CT computers
8. SBB
The Best ICT Conferences & Expos in Serbia

• CISCO expo, 11-12.November 2008, Belgrade
• TELFOR, 25-27. November 2008, Belgrade
• YU INFO, 8-11. March 2009, Kopaonik
• CRM, 2. April 2009, Belgrade
• Mobile FEST, 7-9.April 2009, Novi Sad
Other Challenges
Conclusion

• Increase of ICT market’s revenue on average over 30% per year
• Increase in Internet usage over 25% per year
• 44% increase in mobile telco market revenue
• International ICT projects and cooperation expanding
Q&A