Historical Background of Russian IT

Pre-Perestroika

Stalin’s phobia of telephones.
Feared their potential as a tool of counter-revolution.
Forbade telephone discussions of state business.

- Development of the Soviet civilian phone system was slow, uneven, of poor quality and reliability, and routinely underfunded.

- Phone calls would not go through without repeated dialing, unbearable static and poor connections.

Historical Background of Russian IT

- Long distance calls (domestic and International) normally had to be reserved up to a week in advance.
- Fax and photocopy machines were registered, tightly controlled and available only to authorized personnel.

In view of the above, there was a heavy reliance on telegraph, and later, telex communications.

Cash registers and even calculators were rare, but abacuses were ubiquitous.

Even batteries for portable devices were non-existent or very hard to come by, even on the black market.
Historical Background of Russian IT

Government and military communications

Another matter entirely:

- Telephone systems were much more developed, effective, reliable and thoroughly segregated from the civilian system.
- PBX’s were rare. A government official’s power could be measured by the number of single-line telephones on his desk.

Historical Background of Russian IT

Mainframe Computers

- Clones of IBM systems (Elbrus “Red Cray”)
- Reserved for military, government, space programs, scientific research, and centralized economic planning (Gosplan).
Historical Background of Russian IT

Perestroika Years
Gradual liberalization of telecommunications policy.

- Fax and machines legalized for public purchase, ownership and use.
- Soviets attempted to develop their own personal computers modeled on the Apple Mac, called the Agat.
- Initiative failed due to poor quality, unreliable performance, total absence of tech support and severely limited availability of spare parts and program applications.
- First attempts to import PC’s, but limited by Western export control regulations governing dual use technologies.

The IT Sector
Started from a low technological standpoint, the emergence of a small but rapidly growing market-oriented IT sector:

- hardware assembly
- packaged and contract software development
- technology development (R&D)
- IT services
The IT Sector

In 2004, growth rate estimated at 20–25 percent, driven by:

• Huge increases in public-sector spending on back-office IT systems

• Growing demand from private-sector firms, especially in the oil and gas industries and financial services

• Skyrocketing growth in telecommunications—especially mobile telephony.

The IT Sector

Economic growth and with it increased consumer and business demand are likely to continue:

• High prices for natural-resource exports

• 18% flat tax (soon to be reduced further to 12-13%)

• Rapid growth of IT-intensive services (banking and insurance).

• Continuance of government IT-spending programs.
The IT Sector

Russia also has attracted a share of the offshore market, especially for complex and algorithm-intensive software engineering.

But Russia remains a niche offshore player for the foreseeable future:

• Russia’s IT offshore firms have focused their efforts on elite engineering projects instead of more-routine code production or call/data centers (India, China, etc)

• A strong ruble seriously hinders price-competitiveness and increasing market share (Dutch Disease).

The IT Sector

• Physically and psychologically removed from the global IT mainstream.

• Language and cultural barriers persist.

• Limited market-penetration know-how. Russian programmers may be the best in the world, but seriously short of business smarts.

• Capricious bureaucracy, and weak rule of law (particularly intellectual property rights).
The IT Sector

Proposals to promote IT sector development:

• Creation of technology parks
• Liberalization of rules governing state-funded intellectual properties
• Streamlining of the regulatory process
• Tax breaks and financial incentives.
• BUT - many of these initiatives, while well intentioned, have not been adequately funded.

IT in Business

• The integration of information technologies in business in Russia has been a very recent phenomenon.
• Process is far from complete in most firms.
• In the West, information systems is seen as a means to improve productivity and decentralize management decision-making.
• These goals are not very high priorities in Russia.
IT in Business

- Managers of many Russian firms discount the benefit of IT, citing the need for more fundamental restructuring and management tasks.

- Others report misguided and troubled IT implementation projects that failed to adequately consider the need for accompanying organizational and cultural changes.

- Scaling back or scrapping IT projects in some cases.

IT in Business

Still, Russian firms are likely to invest more heavily in IT.

- The longer term ability to increase productivity through quick fixes is limited.

- If Russian firms eventually must turn to technology solutions to enhance productivity, management, and innovation in order to compete successfully in globalized markets over the long term.

- Russian firms will also have to use IT to improve their internal accounting and governance practices to attract investors, particularly foreign.
IT in Government

- Has contributed to performance improvements in governmental functions at the federal and local levels.
- Unfortunately, many projects modified and diluted in implementation.
- Many government agencies still do not believe in the public’s right to know.
- Kremlin’s attitude toward freedom of information highly ambiguous.

IT in Government

- Unfortunately, investments in IT must be matched by fundamental changes in organizational structure, procedures, and culture for the IT hardware to be effective.
- Threat of short-term successes in the “automation” of existing government processes
- Screaming need for fundamental organizational reform and cultural change
IT in Society

• In 2005, regular Internet users in Russia accounted for about 10 percent of the population.

• Internet access continues to grow, particularly among Russia’s youth and in Russian provinces due to:
  • Continued economic growth
  • Rapid evolution of technologies and falling prices
  • Computers in Schools program

IT in Society

• Internet audience expected to exceed 20 percent of the population by 2009, attaining nationwide mass-media status.

• For those able to obtain access, the Internet can be seen as a powerful enabling technology.

• However, as many as two-thirds of Russia’s population will not have access to the Internet.

• May contribute to greater socioeconomic stratification between rural and urban areas.
IT in Society

Internet and Russian Politics

• “Colored revolutions” in Georgia, Ukraine, and IT-enabled protests in Serbia, China, and elsewhere spooked the Kremlin.

• Attempts at all levels of government continue to actively influence the development of the Internet and its content.

• Laws and other acts have been proposed aimed at restricting Internet freedoms.

IT in Society

• More-active “hardball” efforts to clamp down on the Internet anticipated.

• Chinese-type controls being debated.

• However, the ability of the regime to firmly control access/content in the long term is unclear.
КОНЕЦ