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The first wireless country in the world – a case study of Macedonia

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USAID Macedonia



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Status in 2004

- Internet penetration estimated at 4-8%
- Access prices prohibitively high for all
- Most primary and many secondary schools without any Internet access
- ADSL only available through the national monopoly (MakTel) in urban areas and larger towns and villages where copper wires are available.
- E-Commerce lagging
- E-Government practically non-existent
- Policies restrictive, but evolving



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Mission Objectives

- Affordable Internet
- Improved education
- Growth of the economy



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What did USAID do?

Economic Growth Sector:

Legal regulatory changes

E-Gov

E-Biz

Democracy and Local Governance Sector:

Make Decentralization Work

Education Sector:

E-Schools

Macedonia Connects



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What the other players in the Public-Private Partnership did

- Late President Trajkovski's initiative for Chinese donation of computers - \$6M.
- Microsoft: 6,000 software licenses
- Motorola
- On.net



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Macedonia Connects project roll-out

- Project designed in early 2004 to:
 - a) increase competition,
 - b) reduce connectivity prices, and
 - c) provide schools with access to information.
- September, 2004: USAID implementer, AED, commences project work and sets up office
- December, 2004: Request for Proposals (RFP) issued to select Internet service provider
- April, 2005: On.net selected as winner
- September, 2005: nationwide wireless backbone completed with all schools connected
- Macedonia becomes known as “the first wireless country”



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The business model

- USAID paid On.net to provide 2-years of subscription for 465 schools, 17 dormitories, 16 regional branches of Education Ministry, 15 University Departments, and the University Library, 31 NGO's, 2 hospitals and 1 orphanage
- Three large payments agreed in sub-contract with On.net as the selected ISP: 70% upfront to boost company's cashflows and allow infrastructure build-out.
- Bonus payment planned for on-time completion of backbone.
- On.net builds and owns the infrastructure.
- Intensive marketing to increase penetration and drive down prices



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Design of the backbone

- On.net used 140 existing radio towers of the National Radio Broadcasting company for its Access Points and Backhaul units.
- 460 schools received CPU's and connectivity.
- Macedonia's mountainous terrain can be also an advantage!





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Coverage

- The wireless network covers over 95% of the territory and can deliver Internet at competitive prices to the remotest villages
- MakTel's ADSL is only available in the urban areas and larger towns and villages where copper wires are available.





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Results

- 32% Internet penetration in 2007
- Competition in the ISP market: will it remain so?
- Price reduction: now ADSL can be purchased for 10 USD per month (2 GB)
- Macedonia ranking by Transparency International improved; WB calls us 4th biggest reformer in 2007
- All secondary and primary central schools continue to have broadband Internet
- 66 municipalities applied for On.net's WADSL



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What does the future hold?

- GoM buy-in:
 1. One Computer per Student program
 2. GoM RFP for Internet connectivity for schools expected to come out shortly
- USAID on-going support:
 1. Primary Education Project
 2. E-Gov Project



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Thank you!

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