

# Virtual Bus: Mobile Internet Research Unit



**Virtual Bus** is a research project with the overall objective of identifying and implementing long term methods and techniques to mitigate the digital gap between the rural and urban areas in Cyprus.

The project is based on a mobile Internet research unit that is equipped with the latest technology computer workstations, servers, security, networking, 2-way broadband satellite, Wi-Fi, 3G, IP Telephony infrastructure, videoconference and audiovisual equipment, air-conditioning and power generator – making it totally independent from any network resource. The lab space has eleven office desks and chairs and offers accessibility to disabled persons.



The above technologies and facilities are flexibly arranged in the best possible way, providing mobility and high-end technology, under any weather conditions, independently from any utility. It provides an office space of 6,80X2,30, arranged in any way possible, with any connection possible, hosting the required services with immediate access using satellite broadband technology.

Virtual Bus provides the means by which to train citizens and SMEs, living in rural areas, in the use and exploitation of Information and Communication Technologies (ICT). In addition, the project aims to provide its researchers with a suitable infrastructure with which to experiment with the use of new, wireless and mobile ICT technologies, methods of training, Internet accessibility and IP data and voice communication.

Its innovative character allows the simultaneous use of the unit for research, training, dissemination, promotion, support and service, by multiple organizations with the same objective. It handles multiple projects



simultaneously and with a regular schedule provides a virtual office for all project partners. Its independence on utility connection gives the unit autonomy to reach the most remote locations, helping to take the benefits of technology to any location, thus covering areas and approaches that have never been possible to reach before.

## Virtual Bus:

- ▶ An innovative mobile research and training infrastructure, enriched with the latest Information and Communication Technologies, with the flexibility to accommodate almost any or a combination of ICT projects
- ▶ Transports knowledge, research, innovation and technology, addressing e-Inclusion issues at a required location instead of remotely trying to resolve a problem from a lab, University, SME or Government office
- ▶ Supports Government, SMEs, unemployed, disabled, equality issues and opportunities, senior citizens and especially citizens living in rural areas
- ▶ Enhances networking through multiple organization communication technology and by using the unit's facilities at the location required
- ▶ Contributes towards the Lisbon objective for a more competitive, dynamic, knowledge-based economy
- ▶ Enables the penetration of computer literacy and digital inclusion geographically anywhere, area to area and door to door

## Partnership

The project is a partnership between an academic research institution, an SME ICT company and a telecom operator. The benefits from this cooperation include the use of common research infrastructure and working together in closing the digital gap between rural and urban areas in Cyprus. Our collaboration also provides the opportunity to explore and enrich the academia and ICT Industry partnership.

Each new partner or project requesting to use the unit, is provided with knowledge from all previous projects during the initiation of the project. Knowledge gained in projects includes ICT statistics (penetration of digital literacy and Internet), adaptability to new technologies, population behaviour to ICT by area, population needs by area, type of services most required by citizens, method of attracting participation, type of problems encountered at each location and needs per area.



## Project Funding

The project is mainly funded by the Cyprus Research Promotion Foundation (RPF), Virtual IT, an ICT Services and Solutions enterprise, and the University of Nicosia. The Cyprus Telecommunication Authority (CYTA) is a major sponsor of the project and the telecommunications infrastructure partner, providing the Virtual Bus with access and services related to mobile, Internet and satellite communications. Additional sponsors include Mercedes (Cyprus), Lenovo, CISCO, Microsoft, Oracle, Kentriki Asfalitiki and SPE Strovoulou (Strovolos Cooperative).

## Project Results

Through its partnership with various researchers, NGOs, Government agencies and social partners, the Virtual Bus has managed to transfer knowledge and receive feedback from all over Cyprus. Results from the projects have provided:

- ▶ Understanding of how urban services such as Broadband connectivity has become such a vital infrastructure – considered, among others, as a primary reason for family relocation from rural to urban areas;
- ▶ Means to understand how to shape e-Inclusion strategies and action plans that can better meet the needs of rural areas;
- ▶ Respect from rural communities that an effort has been made to build infrastructure that gets closer to the problem and their community, rather than a remote attempt to solve such problems from either an office or lab;
- ▶ Assistance to the elderly in remote areas to receive Government services and basic introduction to the Internet, understanding communication and knowledge benefits;
- ▶ Assistance to SMEs in understanding new technologies and how ICT can help them be more competitive in their businesses.



**Virtual IT** is an Information Technology Solutions and Services organization with the mission to deliver innovative solutions through state-of-the art technologies, required for any organization to be competitive and effective in today's marketplace. The

solutions and services provided are grouped under E-Business, Professional Services, System Integration, and Training. In addition, Virtual IT is involved in local and EU based research projects that promote the use of Innovation, Research and Technology.

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## UNIVERSITY OF NICOSIA

The **University of Nicosia** is an independent, co-educational, equal opportunity tertiary education institution, combining the best elements in western education, quality standards and an international philosophy. With an international student body, a diverse range of academic programmes at both the undergraduate and postgraduate level, instruction in English, and a commitment to multiculturalism, the University provides a dynamic learning environment in a modern, democratic, European country.

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