Deliverable D4.2.4
Terminal connectivity enhancement solution (OpenVPN)

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ICT SHOK Future Internet Programme
(ICT SHOK FI)

Phase 2: 1.6.2009 – 31.12.2010

Tivit, Yritysten tutkimus- ja kehittämisrahoitus, Päätös 516/09, 29.5.2009, Dnro 560/31/09

TKK, Tutkimusrahoituspäätös 40212/09, 29.5.2009, Dnro 925/31/09

www.futureinternet.fi

www.tivit.fi

This work was supported by TEKES as part of the Future Internet programme of TIVIT (Finnish Strategic Centre for Science, Technology and Innovation in the field of ICT).

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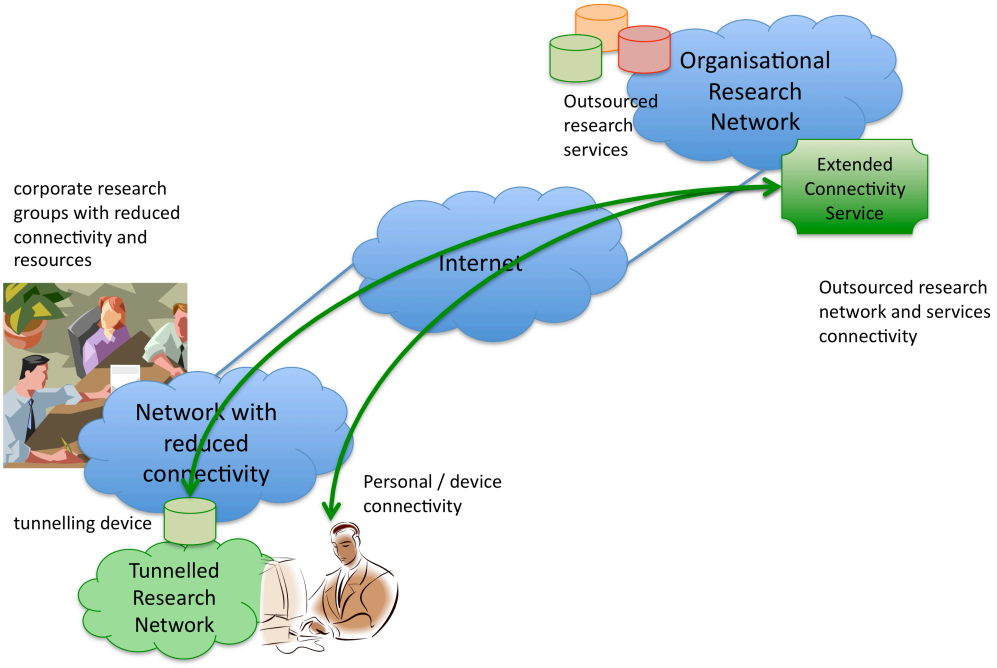

Figure 1: the connectivity enhancement solution

The connectivity enhancement solution (Figure 1) provides components for enhancing personal, group and organisation connectivity to outsourced research services offered by research organisations. The connectivity can be attained over any third party network connections by tunnelling the traffic with tunnelling client either in the end device itself or in the specific tunnelling device. More detailed used cases are described in DA4.1.1, the testbed architecture document, available at: http://www.futureinternet.fi/publications.htm

The connectivity enhancement solution (OpenVPN) consists of three components published and demonstrated during ICT SHOK Future Internet programme:

- Extended Connectivity Service: PurpleNet management software by Tampere University of Technology (TUT), published 14th of October 2009.
- Personal / device connectivity: Aalto OpenVPN Virtual Image by Aalto University, published in April 2010.
- Tunnelling device: OpenVPN appliance by Helsinki University / Helsinki Institute of Information Technology (HIIT)

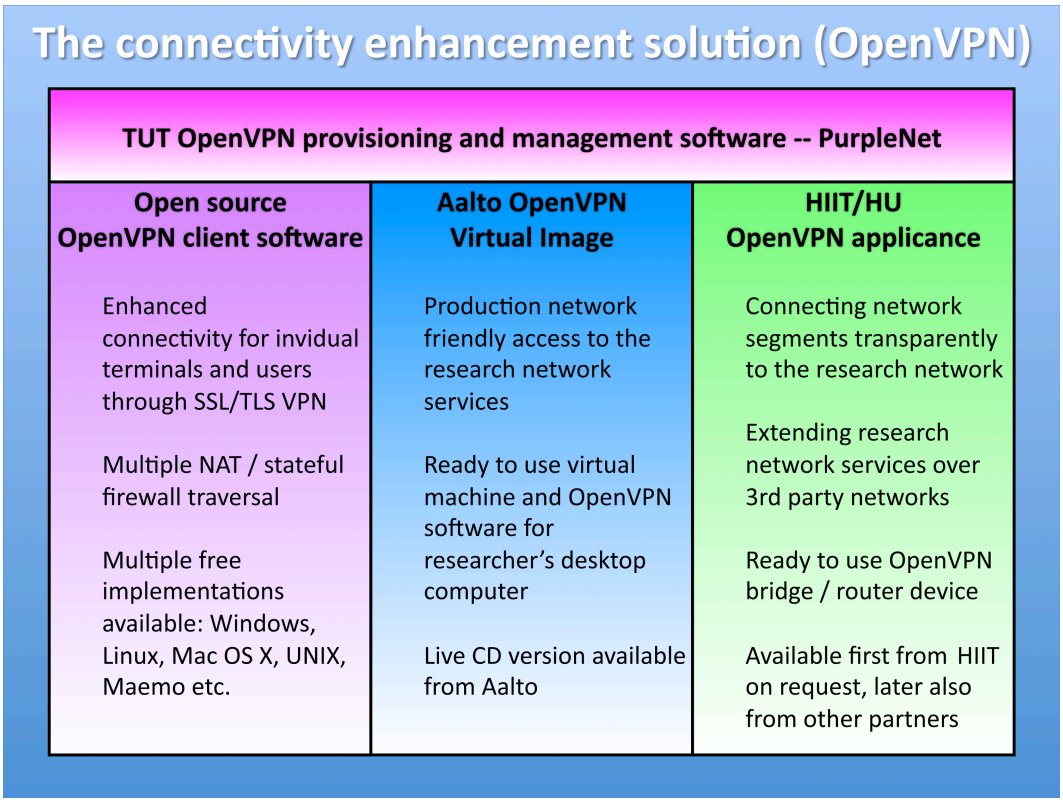

Figure 2: the connectivity software suite

PurpleNet from Tampere University of Technology provides an end client and tunnelling server configuration and certificate management and provisioning software with web browser based user interface. PurpleNet enables organisations to configure and manage their tunnelling servers and deliver the required client configurations and authentication credentials to end users and devices in a scalable fashion. TUT also coordinated the development effort.

OpenVPN virtual image from Aalto University is aimed for desktop access to the research network services by creating a virtual image to connect to the research network services. This image can be run from the USB stick or as a virtual host on the researcher's desktop providing quick personal access to research network services.

OpenVPN appliance from Helsinki University / HIIT provides a tunnelling solution for tunnelling entire network segments from actual research network to the network behind third-party Internet connectivity. This solution enables extending the research organisation's network services to partner networks quickly and efficiently.

These three components (Figure 2) form an interoperable connectivity software suite, which has been published and released under open source license in the following locations:

- PurpleNet: http://purplenet.sourceforge.net/
- Aalto OpenVPN Virtual Image: http://www.netlab.tkk.fi/tutkimus/fi-shok/usecase.html
- HIIT OpenVPN appliance available on request