D10.10 Final Training Material

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Authors	PORT (Bora Güngören, Burak Oğuz, Serdar Tuğcu, Emre Yüce) IAIK (Peter Lipp, Thomas Winkler, Martin Pirker) RHUL (Eimear Gallery, Chris Mitchell) HP (Graeme Proudler), CUCL (Steve Hand) TEC (Herbert Petautschnig) TUB (Görkem Çetin, Kadir İmamoğlu)
Abstract	This is the final collection of training material from OpenTC partners.
Keywords	Training concepts, training plans, educational material, Trusted Computing.
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Instrument	IP	**Start date of the project**	1st November 2005
Thematic Priority	IST	**Duration**	42 months

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1 Introduction

Training activities have been integrated into WP10 to ensure knowledge transfer to potential users of trusted computing technologies. Target audiences include engineers, undergraduate and postgraduate students, researchers and industrial executives, and training activities have taken the form of seminars, summer schools, workshops and on-line courses. During the early stages of the project, activities focused on the detailed planning and definition of the training courses/material that in the latter stages have been developed and delivered by OpenTC members. This document includes a summary of the partner contributions with respect to training activities. Following this, the training material of the partners is included.

2 Partner Contributions

The training activities of the OpenTC project incorporates both academic and professional training.

2.1 Academic Partners

As university courses on trusted computing are still rare, OpenTC academic partners are continuing their academic training. RHUL and IAIK have graduate level courses devoted to trusted computing, whereas TUB OpenTC members are contributing to an undergraduate course in security which covers trusted computing.

2.1.1 Royal Holloway, University of London

A full 11-week course on trusted computing (comprising 11 3-hour lectures) was initiated in January 2007 (academic year 2006/07) and has been delivered since as part of the MSc in Information Security at RHUL. This included two guest lectures given by Graeme Proudler from HP Labs Bristol and Steve Hand from the University of Cambridge in 2007 and Graeme Proudler and Chris Dalton from HP Labs Bristol in 2008 and 2009. Two pieces of coursework and an examination were also written. The OpenTC proof-of-concept prototype was presented during a lab session in 2009.

RHUL has also presented a series of tutorials on trusted computing to staff, post-doctoral research assistants and PhD students.

More recently, RHUL has seen the introduction of a new 'security-focused' undergraduate degree in computer science. As part of this undergraduate degree programme a course in trusted computing will be offered in 2009/10, again building directly on the training materials developed within the OpenTC project.

2.1.2 Institute for Applied Information Processing and Communication

A course titled “Selected Topics of IT-security: Trusted Computing” was initiated by IAIK in March 2007, with approximately 30 registered students. This course covers the theoretical foundations of trusted computing. Students must also complete practical exercises using TPM-emulators and components developed within OpenTC. A series of guest lectures were also presented by David Grawrock (Intel). This course has continued through 2008 and 2009. In 2008, students on this course were given the opportunity to visit the educational event and scientific conference at TRUST 2008 and given the task of writing papers on selected topics on trusted computing for presentation. IAIK also participated in ETISS 2006, 2007 and 2008.

2.1.3 TUB

A course titled “New Technologies in Security”, with a focus on trusted computing, was initiated by TUB in 2006 at the Computer Engineering Department, University of Kocaeli (Turkey). Five weeks of this course are dedicated to trusted computing technologies. This course is now in its third year.

2.1.4 Seminars, Workshops and Educational Talks

A series of seminars have also been presented by various partners. These include the following:

- C.J. Mitchell (RHUL), “Trusted Computing: A Universal Security Infrastructure?”, Seminar: Department of Computer Science and Software Engineering, University of Canterbury, Christchurch, New Zealand, 21st March 2007.
- C.J. Mitchell (RHUL), “Trusted Computing: Putting a Security Module on Every Desktop”, Seminar: New Zealand Information Security Forum, Auckland, New Zealand, 28th March 2007.
- C.J. Mitchell (RHUL), “Trusted Computing: A Universal Security Infrastructure?”, Seminar: Centre of Digital Enterprise, University of Auckland, New Zealand, 28th March 2007.
- C.J. Mitchell (RHUL), “Trusted Mobile Platforms”, Two half-day sessions given at the Information Security Summer School (ISSS 2007), Taipei, Taiwan, 7th August 2007.
- E. Gallery and C.J. Mitchell, “Trusted Mobile Platforms”, Foundations of Security Analysis and Design IV (FOSAD 2007), Bertinoro, Italy, 9th-15th September 2007.
- IAIK participated in the Educational Event at Trust 2008 presenting two classes on “How Trusted Systems are Programmed: A Practical View” and “Mobile Trusted Computing”. RHUL also presented a session entitled “Who is the TCG and what are the TC concepts?” at TRUST2008, 10th - 13th March 2008, Villach, Austria.
- IAIK presented a poster at Linuxtage, 28th - 31st May 2008, Berlin, Germany.
- TUB presented a tutorial entitled “Trusted Virtualization and Grid Security” at CCGrid 2008, 19th - 22nd May 2008, Lyon, France.
- Eimear Gallery (RHUL), "Mobile Security and the Mobile Trusted Module", 3rd European Trusted Infrastructure Summer School 2008 (ETISS 2008), 31st September - 4th October, 2008, Oxford, U.K.

2.2 Non-Academic Partners

2.2.1 TEC

A course titled "Project Risk Management" was held in Halmstadt, Sweden at the start of the project in November 2006 with 30 engineering students. One goal was to introduce the students at Halmstadt to the OpenTC project. The students were asked to identify and evaluate potential risks connected with the deployment of trusted computing. Thereafter, with the second goal of ensuring a deeper understanding the technology, the students were divided into groups of 4-5 people to examine an OpenTC case study. The students had to choose one of the following: (a) Governmental Agency, (b) Private Person, (c) SME (Small and Medium Enterprise) or

(d) Industry, and identify the potential influence of trusted computing on their chosen entity/organisation.

2.2.2 PORT

Portakal Teknoloji continued to add to their training material which examines the OpenTC architecture. The material presented in this deliverable is now complete and includes the following 7 topics, in line with the course objectives planned in previous WP10c deliverables.

1. What is trusted computing?
2. TPM and TSS implementations.
3. OpenTC goals and objectives.
4. Basic management interface.
5. An everyday application (MEITC).
6. A security related application (DRM).
7. Using the OpenTC infrastructure (EFS).

Chapters 2-3 focus on background material and on the OpenTC design, chapters 4-7 focus on work completed within the OpenTC project. In particular, chapters 5-7 focus on work completed within WP06. The material has been presented at a series of seminars organised at METU Institute of Applied Mathematics to MSc and PhD students in Cryptography. However, no formal course code has been assigned yet.

The full D10.10 Final Training Material is available on the Technikon FTP Server:

Server: ftp://www.technikon.com

Username: opentc
Password: 0p3nTCDel