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Abstract:

This document is the initial plan for using and disseminating knowledge of the ENABLE project.

Updates of the initial plan will be included as separate part of the periodic activity reports.

Keywords:

All-IP, Dissemination, Knowledge, IPv6, Mobile IPv6.

Revision History

The following table describes the main changes done in the document since created.

Revision	Date	Description	Author (Organization)
v1.0	15/05/2006	Document creation	Jordi Palet (Consulintel)
v1.1	23/05/2006	Added text from UMU	Antonio Skarmeta (UMU)
v1.2	29/05/2006	Added text from Siemens	Florian Kohlmayer (Siemens)
v1.3	01/06/2006	Added text from IABG	Wolfgang Fritsche (IABG)
v1.4	06/06/2006	Added text on internal workshops, publications, standardization activities and preliminary exploitation plans foreseen by TI (sections 3.3, 3.5, 4 and 5.1)	Ivano Guardini (TI)
v1.5	08/06/2006	Added content to sections 3.3, 3.4, 3.5 and Section 5.6	Miguel Ponce de Leon (WIT-TSSG)
v1.6	09/06/2006	Commented/added content to sections 2-5	Xiaoming Fu (UGOE)
v1.7	09/06/2006	Added text from Brunel	Wenbing Yao (Brunel)
v1.8	09/06/2006	Added content to section 5.9	Bin Xia (Huawei)
v1.9	19/06/2006	Final inputs	Jordi Palet (Consulintel)
v2.1	20/06/2006	New text added	Xiaoming Fu (UGOE)
v2.2	28/06/2006	New text added	Ivano Guardini (TI)
v2.3	28/06/2006	New text added	Antonio Skarmeta (UMU)
v2.4	28/06/2006	Text lost recovered	Ivano Guardini (TI)
v2.5	29/06/2006	Added content to section 3.5	Miguel A. Diaz (Consulintel)
v2.6	30/06/2006	Final review and document completed	Jordi Palet (Consulintel)

Executive Summary

This document provides the dissemination plans over the project lifetime of the ENABLE project.

It identifies on-line dissemination, internal project and external IST-level/others communications. That includes the presentation of project work and results in workshops and conferences, as well as other publication initiatives.

It also identifies possible public activities or events to be organized by the project.

The deliverable provides early exploitation plans from the project partners, when they can be identified in this early stage of the project.

Finally, it describes the main aspects of the project participation in standards activities.

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1. INTRODUCTION

The goal of ENABLE is to research, develop, test, integrate and evaluate mechanisms and technologies for the deployment of efficient and operational mobility as a service in large scale IPv6 network environments, taking into account also the transition scenario from IPv4.

ENABLE will concentrate on the following main areas of work:

- Enhancement of Mobile IPv6 to enable, in the medium term, the offering of transparent terminal mobility in large operational networks including multiple administrative domains, heterogeneous access technologies and a rapidly growing number of users. This activity will address outstanding Mobile IPv6 issues like service authorization, autoconfiguration, interworking with IPv4, coexistence with IPv6 middle-boxes (e.g., firewalls) and protocol reliability.
- Enrichment of the basic mobility service provided by Mobile IPv6 with a set of additional features, enabling the on-demand activation and autoconfiguration of specific "premium" network features (e.g., multihoming, QoS, fast handovers) based on the operator policies and customers profiles.
- Analysis of goals and design principles for the evolution beyond Mobile IPv6 in the long term. This activity will investigate scalability and performance issues that Mobile IPv6 might raise when the vast majority of Internet nodes will become mobile, introducing the requirements for a highly efficient treatment of traffics generated on the move. Moreover, the promising but not yet fully understood mobility management alternatives (e.g., Host Identity Protocol) will be assessed, with the objective to identify possible strategies for their smooth deployment starting from an architecture based on Mobile IPv6.

Towards these, ENABLE objectives are summarized as:

1. Design an overall Mobile IPv6 service enabling architecture, including dynamic mobile IPv6 bootstrapping as a fundamental building block.

2. Develop required technologies to enable the deployment of Mobile IPv6 in real-life environments, including IPv6 middle-boxes (e.g., firewalls, VPN gateways) and the legacy IPv4-only access infrastructures.

3. Investigate solutions to improve the reliability of Mobile IPv6 and enable an optimal usage of network resources for the deployment of Mobile IPv6 in a provider network.

4. Enrich the basic mobility service provided by Mobile IPv6 with a set of additional features, enabling the on-demand activation and autoconfiguration of specific "premium" network features (e.g., multihoming, QoS, fast handovers) based on the operator policies and customers profiles.

5. Assess and compare the mobility management solutions that could represent viable alternatives to Mobile IPv6 in the long term, and identify a transition path for the smooth deployment of such technologies starting from the Mobile IPv6 environment.

6. Validate the results of the developed mechanisms and technologies through prototyping and laboratory testing.

7. Disseminate project results, through standardization activities (with a focus on IETF and 3GPP), public trials and academic conferences and journals, as well as liaison and cooperation with ongoing national, European and other international projects.

The dissemination, clustering/liaison and standardization activities are being carried out by WP7. The goal of this Work Package is the generic dissemination of the project results and the cooperation with other projects and related institutions/bodies. This can be depicted in the following more concrete objectives:

- To Initiate wide publicity for the results of the project to disseminate the work carried out and achievements to the widest possible audience
- To Ensure that the project is exploited to its full potential and dissemination activities are in co-ordination with the exploitation plan
- To produce publicity materials and to generate awareness of the project work.
- To identify the end products and the relevant business scenarios.
- To develop such business models and guidelines which enable the economically viable implementation and operation of the project results.
- To participate in program-level activities, and in relevant seminars and conferences
- To participate in EU concerted activities (clustering) so that transferability and European added value are assured.
- To liaise with standardization bodies and other related forums.

2. PROJECT CONTACTS

The project has established contacts with different actors around the world, including other IST, related projects and initiatives.

The main IST projects related to the work performed by ENABLE are:

IST Number	Project Acronym	Project Website
026943	DAIDALOS	http://www.ist-daidalos.org
027662	Ambient Networks	http://www.ambient-networks.org
004536	RUNES	http://www.ist-runes.org
035003	U-2010	(under construction)

Other related initiatives are:

- Nautilus6 (http://www.nautilus.org).
- GENI (http://www.nsf.gov/cise/geni).
- IPv6 Testing (http://www.ipt.etsi.org).

3. DISSEMINATION ACTIVITIES

The dissemination activities have the responsibility of creating awareness regarding the different activities performed by the different work-packages and in general the work being done in the overall project.

Next sections provide some concrete examples of the project intend on this regards.

3.1 Project Website

The main dissemination tool of the ENABLE project is the project website.

Several domain names have been registered, both of them pointing to the same virtual server:

- http://www.ist-enable.org
- http://www.ist-enable.eu
- http://www.ist-enable.net
- http://www.ist-enable.com

In all the cases, both IPv6 and IPv4 are supported.

The project website is working since project Month 3, and will be continuously updated with the documents and results of the project.

The website has been extensively disseminated thru search engines, so it can be easily located as a general information source for the topics related to the project work.

The project website has also some private areas for the partners information exchange, project mail exploders and internal repository/FTP.

3.2 Project News and Press Releases

A section of the web site is devoted to the project and related news. Is expected that the project will be able to produce press releases and news regarding key activities and results.

3.3 Internal Dissemination

The project partners will organize yearly internal workshops in order to promote the awareness creation within their own organizations. Other partners may attend those workshops also, in order to provide complementary contents.

This kind of internal workshops are required in order to ensure the wide dissemination of the project work and results towards the companies involved in the consortium. Otherwise, the experience is that, especially in big organizations, the project aspects may not be disseminated appropriately, so the workshop could provide the path for taking a bigger advantage in terms of exploitation of results and intra/inter-departmental cooperation.

The following table lists the expected dates and locations for those workshops:

Organizing Partner	Venue	Target Planned Dates
Telecom Italia	Turin	12/2006 and 12/2007
UGOE	Goettingen	12/2006 and 12/2007
Siemens AG	Munich	12/2006 and 12/2007
IABG	Munich	17-18/10/2006
WIT-TSSG	Waterford	16/06/2006
Brunel	London	11/2006 and 11/2007
Huawei	Shanghai	20/10/2006

As an example of the expected outcomes for those workshops, follows the description for TI.

Telecom Italia will organize, at the Telecom Italia Lab premises in Turin, two internal workshops, one at the end of each project year. The aim of these events will be to disseminate the results of the project and their possible applicability scenarios. A brief description of the two workshops follows:

- First year workshop (half day in December 2006) will focus on IP-based solutions for intra and inter-system handovers in the network of an operator, taking into account the relations with on-going standardization activities (IETF, 3GPP and WiMAX Forum). Specific technical topics that might be covered in this workshop include: performance evaluation of network-based IP mobility solutions (e.g. NETLMM), interaction between mobility management and AAA and applicability to WiMAX and 3GPP network architectures. The expected audience will be mainly TI researchers. The involvement of other partners is not strictly necessary.
- Second year workshop (half day in December 2007) will be devoted to the presentation of final project achievements, possibly including the demonstration of prototypes and a final update on the status of related standardization work. The expected audience will include TI researchers and some management people. Other partners involved in the development work might need to participate, or at least assist TI in the preparation of the event, in order to provide a complete set of demonstrations.

3.4 Public Events and Trials

The project is considering the participation in different events such as IST Events among others. The project will also organize such activities if required and invite other related projects and initiatives to participate.

Some of those events may offer possibilities for the project to actually demonstrate some of the developments and results.

One very concrete target may be the IST2007, where the project expects to be able to present the main project results, almost at the end of the project. It is also expected to organize one-day workshop every year, being the first one, already defined, part of the IST Concertation meeting, as part of the Systems Beyond 3G Cluster.

As another example IABG will host the DACH Mobility 2006 conference (http://www.syssec.at/dachmobility2006) from 17-18/10/2006 in its premises in Ottobrunn. This conference focuses among others on solutions for mobile communication in general and

specifically on mobile host. A paper concerning ENABLE work will be submitted to this conference.

As part of the Irish National IPv6 Centre, WIT-TSSG plan to chair a promotion of IPv6 for Irish business groups and the broader Irish IT community. This will be done in conjunction with the Irish governmental department for Communications, Marine and Natural Resources, and is due to take place on the 20th November 2006. As part of this event WIT-TSSG plan to present information on the IST ENABLE project findings.

UGOE will organize a MobiArch 2006 workshop (http://user.informatik.uni-goettingen.de/~mobiarch), with technical co-sponsorship of IEEE or ACM. This will be held in conjunction with the IEEE GLOBECOM 2006 conference (the IEEE Communications Society's flagship conference), which allows best visibility of ENABLE project and encourages paper submission and presentations from ENABLE partners.

3.5 Conferences and Publications

The project will contribute to conferences, workshops and other events where the project results can be made public by means of papers, presentations and other contributions.

Some of the papers have already been identified, or even submitted. One of them on "Home Agent Load Balancing in Mobile IPv6 with Efficient Home Agent Failure Detection and Recovery" has been submitted to ICMU 2006 (http://www.icmu.org/icmu2006/index.html). This was lead by Brunel with participation from IABG. Furthermore a paper on "Home Agent Lastverteilung im operativen MIPv6 Einsatz" has been submitted to the DACH Mobility 2006 conference (http://www.syssec.at/dachmobility2006). This paper was led by IABG with participation from Telecom Italia.

Moreover, based on the work carried out so far within the project and on the planned activities, Telecom Italia has already identified the following tentative papers for future submission:

- A first paper, to be submitted during the first project year (conference/event to be identified), will focus on performance evaluation through simulation of NETwork based Localized Mobility Management (NETLMM) alternatives and comparison with host-based solutions derived from Mobile IPv6, such as Mobile IPv6 with local HAs and Hierarchical Mobile IPv6.
- A second paper, to be submitted during the second project year (conference/event to be identified), will focus on the analysis of solutions to optimize Mobile IPv6 handovers across IPv4/IPv6 access networks, including performance evaluation in a test-bed environment based on Linux prototypes.

From WIT-TSSG, in the first year of the project a paper is planned for submission on "Verifying the technical and business requirements of Mobile IPv6 through scenario based testing" which will be submitted towards the 2nd Conference on Future Networking Technologies (http://adetti.iscte.pt/events/CONEXT06).

In the first year of the project, UGOE has published a survey paper on "A Review of Mobility Support Paradigms in the Internet", appeared in IEEE Communications Surveys, 8(1): 38-51, 1st Quarter, 2006. UGOE has also submitted a paper on "E2T: End-to-end Tunneling for Mobile IPv6" to an IEEE conference, and plans to submit papers on "Improving TCP Performance in Mobile IPv6 Environments" and "A Signaling Approach for Mobile IPv6 Firewall Traversal", in collaboration with Siemens. In the second year of the project, UGOE plans to contribute papers on "QoS signaling in mobile IPv6 environments".

Siemens plans a joint work paper with UGOE for the second year. This paper will focus on a survey of mip6 firewall traversal solutions. Also planed for the first year is a paper concentrating on the general service authorization architecture. The events need to be identified.

Apart from the home agent load balancing paper co-authored with IABG that mentioned above, Brunel has submitted another paper "IEEE802.21 Assisted Network Layer Mobility Support" to ICMU2006. A paper on "Generalized Architecture for Converged Heterogeneous Networks" has been presented on 16th WWRF that was held on April 2006 at Shanghai. For the rest of the six months in the first year, Brunel plans to submit one paper on evaluating the MIPv6 based mobility solution in site-multihomed environment supported by SHIM6, and another paper on enhancing FHMIPv6 by IEEE802.21 MIH services. In the second year of the project, Brunel plans to publish their further work on the improvement of the home agents' reliability.

Additionally UMU has submitted and approved a paper related to the work on ENABLE in IWCMC 2006 Computer and Network Security to be held in Vancouver July 3-6, with title "Improved EAP keying framework for a secure mobility access service". This paper proposes to improve the current EAP keying distribution framework. The basic idea is to allow the visited domain to play a more active role in the key distribution, something relevant to the MIPV6 bootstrapping scenarios. UMU expect to produce new papers to scientific conferences based on the work done in collaboration with other partners.

Lastly, Consulintel plans to work on one paper related to the alternatives for MIPv6 to work on IPv4 networks. The papers will deal with the description of several alternatives, description of scenarios, analysis and comparison of them. The work is planned to be complete during the first year as a result of the work carried out in WP2.

The project intends to make a publication, in collaboration with other projects, initiatives and clusters, around Month 18, which will describe the main project activities, achievements and the work done. The target is to publish 5.000-10.000 copies in a high quality "booklet" format.

3.6 Clustering/Liaison Activities

As part of the linkage of the project with other activities and constituencies, several levels of liaisons are being considered by the project. Those include other projects, clusters, industry, standard organizations and other national/regional initiatives.

In the ETSI MTS 42nd meeting, March 28-29, 2006, a liaison statement between ETSI/EC IPT project and EU IST ENABLE project has been made as follows:

> ETSI TC MTS in its Specialists Task Force is developing a publicly available test development framework as well as interoperability test packages for three key areas of IPv6: security, mobility and transitioning (IPv4 to IPv6). The work is in parts funded by the eEurope programme and in other parts by the ETSI membership. MTS welcomes the liaison with the IST-ENABLE project, in particular in the area of IPv6 mobility. It is considered important to get an early indication on what the future changes to IPv6 could be in order to take this into account for the MTS work programme.
>
> Both ETSI as well as the ENABLE project potentially benefit from this liaison. MTS would welcome regular updates of the project during its meetings and would be willing to present details of its own work programme to the ENABLE project.

- ETSI MTS Chairman, Prof. Dr. Dieter Hogrefe, University of Goettingen

Both, Consulintel and UGOE are part of different IPv6 and mobility-related ETSI Specialists Task Forces.

4. STANDARDIZATION ACTIVITIES

The ENABLE project indents to achieve a high degree of contribution to standards, mainly to IETF.

This work has been already visible since the early stage of the project and is expected that other contributions will be available during all the project life.

The following table depicts the organizations and working groups where most of the standardization results arising from the project are expected.

Standards Organization	Working Group	Intended Work
IETF	MIP6	Mobile IPv6 bootstrapping
IETF	MIP6	Authorization and configuration based on EAP
IETF	MIP6	Mobile IPv6 firewall traversal based on NSIS
IETF	Network Working	Multi-hop EAP Lower Layer
IETF	NETLMM	Protocol solutions and assessment of technical alternatives for network-based mobility management
IETF	DIME	Diameter MIPv6 bootstrapping solution for integrated and split scenario
IETF	RADEXT	RADIUS MIPv6 bootstrapping solution for integrated and split scenario
IETF	Softwires	Documents related to IPv4/IPv6 transition, including mobility aspects

Concerning the IETF standardization IABG and Telecom Italia wrote an article for the IETF journal (http://www.isoc.org/ietfjournal/index.php), published by ISOC, which gives a status report on the "IPv6 host mobility" work done within the IETF 65th meeting. This has been extensively disseminated via a short new published in the ENABLE web site, together with the IPv6 Task Force portal.

Here is a list of Internet-Drafts (I-Ds) that have been submitted so far:

- Goals for AAA-HA interface (draft-ietf-mip6-aaa-ha-goals-02), lists design goals and requirements for the interface between the AAA server of the MSP (Mobility Service Provider) and the Mobile IPv6 Home Agent (HA). This I-D is work item of the IETF MIP6 working group.
- Application Master Session Key (AMSK) for Mobile IPv6 (draft-giaretta-mip6-authorization-eap-03), describes an algorithm, and related open issues, for deriving Mobile IPv6 keying material from EAP. This I-D was discussed during the HOAKEY BOF in at the IETF 65th in Dallas.
- MIPv6 Authorization and Configuration based on EAP (draft-giaretta-mip6-authorization-eap-03), details a fully EAP-based solution for Mobile IPv6 bootstrapping.

- Mobile IPv6 Bootstrapping using Diameter in the Split Scenario (draft-tschofenig-dime-mip6-split-01), provides a description of the Diameter functionality that allows to carry out Mobile IPv6 bootstrapping in the split scenario (i.e. network access and mobility service are provided by separated entities).
- Diameter MIPv6 Application for the Integrated Scenario (draft-tschofenig-dime-mip6-integrated-00), defines a Diameter application to facilitate Mobile IPv6 bootstrapping for the integrated scenario (i.e. network access and mobility service are provided by the same entity).

Other contributions have been made for:

- Problem Statement for bootstrapping Mobile IPv6 (draft-ietf-mip6-bootstrap-ps-05).
- Problem Statement for IP Local Mobility (draft-ietf-netlmm-nohost-ps-04).
- Requirements and Gap Analysis for IP Local Mobility (draft-ietf-netlmm-nohost-req-01).

5. USAGE PLANS

The ENABLE project partners have exploitation plans for the different project activities.

A summary of those is depicted below for each partner.

5.1 TI

The project will allow TI to develop new architectural concepts and technologies for the deployment of Mobile IPv6, and other IP-based mobility management alternatives, in an operator's network. The results of this research effort will help TI to enrich its on-going contributions to the standardization bodies, in particular IETF and 3GPP. This will make it possible to speed up the development of the interoperable solutions that the Telecom Italia Group is looking for to extend its converged offering of voice and data services to fixed, nomadic and mobile users, through the smooth migration to IPv6 and the seamless integration of heterogeneous access technologies (xDSL, GPRS/EDGE/UMTS, beyond 3G technologies like 3GPP LTE, WLAN, Mobile WiMAX, etc.).

The foreseen project activities will also provide TI with important indications on the possible applicability of Mobile IPv6 and its extensions in large operational networks including millions of users and several administrative domains. Based on these results it will be possible to understand if Mobile IPv6 is suitable for being adopted as the key technology for the evolution of mobile networks towards an all-IP paradigm.

With this respect, the project is already helping TI to gain precious experience and knowledge to be brought within 3GPP. In fact, starting from January 2006, TI began to contribute actively to the System Architecture Evolution (SAE) effort going on in 3GPP SA2, whose aim is the design of the beyond 3G evolution of the 3GPP core network architecture. The contributions submitted so far by TI, that are available from the 3GPP web site, goes all in the direction of promoting the widespread adoption of access-independent IP-based solutions (IPv6, Mobile IPv6 and its extensions, AAA, etc.) in the 3GPP architecture. This technical approach, that perfectly fits the research carried out within the project, represents for TI an essential prerequisite for enabling, in the long run, the deployment of a single IP-based core network and control layer capable to accommodate any kind of access system and user experience (fixed, nomadic and mobile), increase scalability, optimize always-on operation and support transport of any service over IP, including real-time applications like VoIP. In this way TI expects to minimize the duplication of functionality across different access systems, with the clear benefit of reducing the total cost of ownership of the network.

5.2 Consulintel

Consulintel is working with several operators, which are already deploying IPv6, including mobility services, so the expertise acquired in the project will be very helpful to further develop related solutions.

In addition to that, we are involved in different IPv6 awareness and training activities, so the project work and results can be further disseminated and this can be considered as one more exploitation mean.

Finally, our activities include also a close follow up and contribution to IETF and other standardizations fora, including the ETSI Specialists Task Forces.

5.3 UGOE

In UGOE, IP-based mobility is and will continue to be a vital topic in lectures and seminars on Mobile Communications, (Advanced) Computer Networks and Advanced Mobile Communications, as well as thesis topics for computer science students at Goettingen. A couple of master students and Ph.D. students have already chosen ENABLE as their research project and topic for their theses, currently including and not limited to mobile IPv6 performance improvements, SIP-HIP interaction, mobile IPv6 firewall traversal, QoS support for Mobile Networks etc.

Currently, UGOE is planning to enable the institute's public PCs and all employees' PCs to support IPv6, mobility and SIP, with certain degree of security and exploit the potential of ENABLE solutions such as firewall traversal.

Furthermore, UGOE will be actively contributing to IEEE/ACM/IFIP conferences and academic journals, dissemination of project results, including publication and presentation of academic papers, guest editorships etc.; it is currently organizing the first International Workshop on Mobility in the Evolving Internet Architecture (MobiArch'06), which covers ENABLE related topics.

5.4 UMU

This project will help to improve the knowledge and expertise of this research group on wireless and mobility management because of having the possibility of working in cooperation with partners very active on current research activities within this field and specially with strong relation to standardization for a. This experience will sure help them to make their position stronger in the research community, and also will contribute to improve UMU results from previous projects.

Finally, the university also hopes to produce some academic research papers in national and international conferences from their activities in this project; furthermore, the direct cooperation with some industrial partners will help to disseminate their knowledge and experience. This knowledge will be also reflected in the dissemination and training activities accomplished by UMU.

5.5 Siemens AG

Siemens has already started to exploit the results of ENABLE in the form of standards contributions, for example in the IETF, and will continue to do so in other standards bodies also. The standards that will be established with the help of ENABLE contributions will enable innovative networking products by Siemens. In a more general sense, the results of ENABLE will help Siemens to shape and to consolidate the vision of mobile systems especially in the area of security, and to get a better understanding of the technical problems involved. This will help Siemens to develop secure products for mobile systems beyond 3G.

5.6 IABG

Mobility is a key topic for IABG since many years. One reason for this is that many of IABG's main customers, like the automotive industry, the logistic industry or the defense industry have strong requirements for mobile communication technologies. In its consulting business IABG analyses these mobility requirements, designs customer specific mobility solutions, and supports during their deployment and operation. Mobile IPv6 has the potential to solve many of the mobility requirements of IABG's customers, however, currently only the main functionality of Mobile IPv6 is investigated and standardized. In order to really deploy Mobile IPv6 in real-world scenarios many remaining operational aspects still need to be solved, such as providing a bootstrapping mechanism for the protocol, improving its reliability and scalability, or providing support for the deployment of services on top of Mobile IPv6. IABG intends to contribute within ENABLE to the investigation and solution of these operational aspects, in order to use these solutions and the gained experiences for the provision of new consulting services to its key customers.

Beyond that IABG operates an own Teleport, on which it provides Internet connectivity over satellite to many customers within Europe, Asia, Africa and Middle East. This Teleport offers already today basic IPv6 services to first customers. As it is the intension to further expand these IPv6 service, an included mobility support for example by hosting Mobile IPv6 Home Agent functionality would be one possibility to achieve this goal. IABG intends to gain the required experience for such a service from its participation in ENABLE.

5.7 WIT-TSSG

There are fellowship schemes in operation at WIT-TSSG which offer opportunities for suitably qualified women and men to pursue a Masters or Doctorate level postgraduate degree by research. During the period of the ENABLE project, WIT-TSSG has opened up this offer in the technological area of Mobile IP. At the time of writing this document, there were no PhD candidates registered for this domain, however we anticipate that this factor will change in the near future.

WIT also run a one year taught Masters programme, and it is within this programme that one dissertation submission is being very much influenced by the ENABLE project.

MSc Author: Niall Clancy. Supervisor Richard Frisby. Title: "Privacy issues in mobile IPv6 when enabling route optimization", Submission deadline Q3 2006.

It is envisaged that as the programme runs in the academic year of 2006-2007, there will be a number of new dissertations which relate to the research themes of ENABLE.

For WIT full-time academic courses there are number of distinct modules that will have its content created or updated, based on the feedback from involvement in the ENABLE project. These are the modules:

- BSc in Applied Computing, Year 3; modified module: Wireless Communications.
- BSc in Physics with Computing, Year 4; modified module: Wireless Networking.
- BSc in Information Technology, Year 4; new module: Converged Networks.
- MSc in Computing (Communications Software); new module: Ubiquitous & Pervasive Computing.

Publication is an extremely important part of WIT-TSSG research, as it provides our work with credibility, and ensures that our results, findings and conclusions are disseminated to the research community.

As a research paper will only be considered a formal academic paper if it undergoes a process of peer review by one or more referees (who are academics in the same field) then WIT-TSSG will only target conferences and journals with a suitable review/publication policy.

5.8 Brunel

By collaborating with experts in ENABLE project, we expect to improve our current knowledge and expertise on wireless and mobility management within Brunel University, especially within BRAINS. The close link of the project with the standard organizations will help BRAINS' researchers and students to enhance their understanding in the wireless and IPv6 areas. In the immediate future, two PhD theses and one MPhil dissertation will result from the involvement in the project.

In addition, it is in the plan that to build up an IPv6 network within one of BRAINS's major laboratory NetLab, and possibly extend the IPv6, MIPv6 support to the university's campus WLAN with the collaboration of the university's computing service group. After this point, combining with Brunel's west London broadcasting test network and commercial mobile network, Brunel will be able to develop a platform of heterogeneous networks that will support wider commercial and exploitation phases of the delivery of converged services (TV/media/data/eHealth) in UK and Europe. Upon the success of this project, the research outcomes will also be exploited to enhance the previously prototyped convergence services in terms of seamless mobility.

Brunel will actively participate in the project's information dissemination activities, presenting the results of the project in well-acknowledged international IEEE/ACM journals, and also by presentations in international scientific conferences, workshops and exhibitions.

5.9 Huawei

Huawei has strong requirements for the products development and standardization in wireless and mobile areas. It is foreseen that IPv6, especially Mobile IPv6, will be deployed in the evolutions of 3GPP，3GPP2，WiMAX，and other emerging wireless systems as well. It is expected that Huawei would exploit the results of ENABLE in the form of standards contributions to the above-mentioned fora. Furthermore, the results of ENABLE would benefit the network innovations for Beyond 3G. This would leverage the convergence of Telecommunications with Internet, and other industries in the future.

6. SUMMARY AND CONCLUSIONS

This early plan for usage and dissemination of the project knowledge provides an overall view of the project and partners expectative on this regard.

The project web site, which has been running since month three, is one of the main initial assets, and provides already a global view of the project objectives, deliverables being produced, news from the project and means for contacting the project partners.

However, this document also summarizes very relevant aspects to be developed by the project partners, such as internal dissemination activities, papers and publications, overall dissemination activities and an earlier view of the partner's exploitation plans.