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NATIONAL HOSTS

A UNIQUE OPPORTUNITY FOR BROADBAND R&D APPLICATIONS

Facilities have been established in industrialized countries throughout the world to support operational trials of advanced services with real users, as part of ACTS¹, the European broadband research and development program. The facilities consist of a number of national platforms known as National Hosts (NHs) providing a range of research and development services such as space in test labs, expertise and support in broadband communications as well as secretarial and logistical services, which can be used, for example, to help organize meetings, provide paperwork and set up teleconferencing facilities.

The NH initiative provides a unique opportunity to link together advanced communications research organizations on a pan-European basis; however, the success of this initiative depends on its level of utilization. In the absence of exploitation of the facilities, in particular the financial contribution that these activities will bring, the infrastructure will quickly be subsumed into a fully priced commercial offering. But if the facilities are developed and nurtured, they could live on beyond the fourth framework program, thus providing a ongoing asset to Europe's research community. This unique opportunity exists to be exploited.

This document lists the current NHs, describes the ad-hoc coordination group the NH Forum, identifies how

These national resources for the support of research projects are offered in conjunction with access to international experimental and research

NATIONAL HOST FORUM

networks such as the Joint ATM experiment on European Services (JAMES) supported by most of Europe's public network operators (PNOs).

The range of services is not identical for all NHs, but each is equipped with state-of-the-art information technology facilities, connected to a variety of different networks, including Internet, together with a set of software and telecommunication tools which have been standardized throughout the family of NHs.

¹ ACTS stands for Advanced Communications, Technologies and Services. It is part of the European Commission's fourth framework program and is coordinated by DG XIII B.



potential users can exploit the facilities, gives an insight into the funding and charging mechanisms, and identifies sources of further information.

The National Hosts

National Host facilities have been established by:

Austria	Iceland
Belgium	Ireland
Canada	Israel
Denmark	Italy
ESA (European Space Agency)	Japan
EU host	Netherlands
(European Commission DG XIII)	Norway
Finland	Portugal
France	Spain
Germany	Sweden
Greece	Switzerland
	United Kingdom
	USA

NHF. Typically the NHF coordination activities are achieved through sharing of information on

- individual NH's services and facilities
- status of agreed standards and recommendations from a number of complementary projects like SONAH, NICE and INFOWIN
- support of and participation in the G7 projects
- organization of distributed events such as project reviews, concertation meetings, etc.
- organization of showcase conferences in parallel with an ACTS information exchange event

User information

While many PNOs are beginning to introduce commercial broadband services, the international network of the NHs is currently restricted to R&D-oriented projects. The NHs initially provided facilities for support of ACTS

projects, but in practice the facilities are open for almost any organization which plans to develop or enhance broadband-oriented applications, providing such usage is not for short-term commercial gain. This development work can be carried out under the umbrella of one of the EU-funded fourth framework programs or under a national research program. The spectrum of possible applications should be regarded as being as large as possible, including applications and services in the fields of high-speed networks, multimedia, teleactivities (e.g. telemedicine, teleshopping, videoconferences, telepresence, interactive TV, etc.) and enhancement of network and service management tools.

The NH services will particularly facilitate the involvement in research programs by Small to Medium Enterprises (SMEs). Such participation is consistent with the stated aims of the European Commission, as it is felt that maximum creativity will be achieved by having research consortia composed of a mix of small and large organizations.

Although each host acts as single point of presence, in reality many of the hosts comprise a number of geographically dispersed sites, which may be interconnected by a network of high-bandwidth communication links. Many of these are ATM links with speeds of up to 155 Mbit/s. Interconnection of the sites at a national level is arranged locally by the individual hosts, usually in conjunction with PNOs. Interconnection of sites at an international level relies predominantly, though not exclusively on the pan-European ATM network provided by the PNOs as part of the JAMES project.

The National Host Forum

In 1994 the managers of the individual NHs decided to form an ad-hoc coordination group. This highly informal organization is called the National Host Forum (NHF). It is normally chaired in rotation by a representative of the country that has the European Union presidency.

It should be noted that NHs exist outside of the boundaries of Europe, and these countries and organizations also play an active role in the work of the

Further information

All the National Hosts have prepared extensive documentation in the form of brochures and detailed descriptions. They are available through the nominated national contact point; however, another convenient way to get further information is via Internet. The INFOWIN project supports a web site containing information pertinent to the ACTS program.

Using the address <http://www.infowin.org/ACTS/> as a starting page, a browser can easily follow links to individual NH home pages containing comprehensive information, including:

- contact addresses for each NH
- detailed descriptions of each NH
- list of services provided
- locations and address details such as telephone numbers, names, mailing addresses, electronic mailing coordinates of all related organizations and people

If an Internet access is not available, information can be requested from the NHF chairman. This function will be provided by Ireland until the end 1996, by the Netherlands until mid-1997, and by Belgium until the end of 1997. The contact details for the Swiss National Host director are:

Swiss National Host
Dr. Fred Casadei
Wallstrasse 22
CH-4002 Basel
Tel.: ++ 4161 285 69 32
Fax: ++ 4161 312 16 60
E-Mail: casadei@aspa or 100265.2645

Support of individual projects

There are no common formal rules for using the facilities of a NH, but most hosts require some standard contract between the users and the NH before the project may start to use its facilities. The easiest way to initiate the process is to contact the national representative of the nearest NH site. The potential user and NH manager will clarify the expectations of the project, so as to define the technical and operational requirements. Even if some of these requirements cannot be met at the local site, the NH manager will have an overview of the complementary offerings of other national or international facilities. He will serve as a 'one stop shop' for interested parties making any necessary arrangements with other NHs.

One of the features of collaborative R&D is that today's consortium may well become tomorrow's competitors. In this environment it will be necessary

to resolve issues such as Intellectual Property Rights (IPR) in advance of the research work taking place. The NH manager may well be in a position to offer assistance in drawing up such contracts that may be necessary as part of the consultation stage of the project.

Funding and charging

No centralized funding exists for the NH facilities; funding is rather considered to be a matter for resolution at a national level. Although a variety of funding mechanisms are provided in the different countries, most of the NHs are funded by one or more of: public authorities, national telecom operators, communication industries, and universities. One standard characteristic of all the platforms is that they operate on a nonprofit basis, and the relevant R&D work is done at a pre-competitive stage.

Most of the NHs do not have a fixed price list for the services offered. In these cases, charging is part of the user contract and must be negotiated with the NH management concerned. Generally the cost for the users should be much lower, using NHs facilities rather than building test and development environment on their own. In most cases it is hoped that all parties involved in the process will benefit from this approach – project participants by having lower cost services and network/service providers by having pre-commercial users of their enhanced services.

Needless to say that any European R&D projects under the fourth framework program, once they are accepted, are funded by the EC at a rate of up to 50 %. Subject to the overall project budget, the amount paid for the use of NHs services may be part of the project's cost statement and may be funded by the Commission in the same way as other allowable costs. 4

Dr. Fred Casadei,
Manager Swiss National Host, Basel

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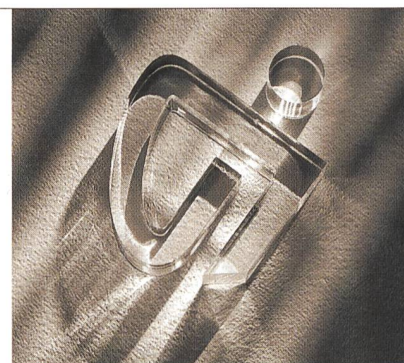
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