



Stichting NLnet

Annual Report 2004

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1. Overview

NLnet stimulates network research and development in the domain of internet technology.

Open Source

NLnet actively stimulates the development of network technology and makes this technology freely available to the community in its broadest sense. The technology should support and contribute to a better functioning of networking.

To this purpose, a wide range of internet-related projects are currently being funded for which Open Source licensing conditions, and in most cases the General Public License (also known as GPL or GNU license), hold.

NLnet projects

The projects undertaken by Stichting NLnet can be divided into:

- *Network technology research*: e.g. IIDS, a research group working on interactive intelligent distributed systems, focussing on mobile agent technology. Application areas include distributed directory services and configuration services.
- *Network technology development and engineering*: e.g. NLnet Labs, which focussed on secure DNS and IPv6 in 2004. Application areas include top-level domain services;
- *“Productising” network technology, development and engineering* with a focus on concrete results: e.g. database back-end support for DNS service (BIND V9 DLZ), safe and robust network infrastructure configuration for schools (SchoolLan), a generic framework for storing and querying RDF and RDF Schema (Open Sesame), report generation from system and network log files (LogReport), distribution of free digital X.509 certificates (CAcert), Open Source implementation of a SMIL2 multimedia player (Ambulant), adaptive web content replication (Globule) and many more;
- *Sponsoring of other Open Source initiatives, educational initiatives or seminars* in the area of networking: e.g. ICT & schools (ThinkQuest), open source development (FSF, FFII, OASE and ISC), *privacy and digital rights* (Bits of Freedom) and *technology conferences* (SANE).

These and other NLnet projects are described in more detail in chapter 3.

financing in 2004

In 2004 Stichting NLnet financed projects to the sum of € 1.051.593 (compared to € 1.287.286 in 2003). NLnet has budgeted € 1.750.000 for projects in 2005.

non-profit policy

As an organisation, Stichting NLnet does not derive any financial benefits from the undertaken projects or their results.

Projects new or extended in 2004

Ambulant/NxG

The Ambulant project is providing the first Open Source implementation of a full SMIL 2.0 media player for PCs and PDA's. The project started in April 2003 and ended in July 2004. A follow-up has been defined in 2004 for work on the SMIL 2.1 and SMIL 3.0 standards and accompanying reference implementation work. CWI is partly financing this project. The project started in October 2004 and ends in September 2006. The project group has five members.

Globule

The Globule project (Vrije Universiteit) aims at developing a large-scale distributed platform for hosting Web applications by means of automatic and adaptive replication of web pages. It is implemented as a module for the Apache webserver on UNIX and Windows systems, and easily installed and configured by end users. The project is targeted for a wide user base. It started in May 2004 and ends in May 2005. NLnet sponsors one full time person of the project team.

Open Sesame Phase II

The Open Sesame project is providing a scalable, modular architecture for persistent storage and querying RDF and RDF Schema (W3C proposed standard). The Phase II project emphasizes better usability of the software and wider deployment and cooperation with others. The second phase started in January 2005 and ends in September 2005. The group has three members.

Projects finalized in 2004

The Ambulant SMIL2.0 implementation project (July 2004), LogReport project (and so Stichting LogReport) (December 2004), SchoolLan Arnhem services (July 2004), DLZ-BIND V9 project (May 2004) and the ReX exchanges project finalized in 2004.



2. Project policy

	<p>Stichting NLnet's primary goal is to stimulate new developments in network (internet) technology for managing and maintaining effective network operation, to improve existing technology, and to encourage new applications of existing technology.</p> <p>Stichting NLnet has chosen to do this by supporting non-proprietary network-oriented projects.</p>
<i>policy</i>	<p>Stichting NLnet's methods of contributing to the development of new network (internet) technology, improvement of existing technology, and new applications of existing network technology are:</p> <ul style="list-style-type: none">• Subsidise (fully or partially) software development;• Finance advanced scientific research into network technology, in co-operation with universities;• Provide financial and organisational backing for dissemination and exchange of knowledge about internet technology through conferences, workshops and contests;• Sponsor knowledge exchange seminars and conferences in order to stimulate dissemination and deployment of results, knowledge and experience.
<i>Open Source</i>	<p><i>All results of projects are made freely available to the community, usually with GNU GPL licensing,</i></p>
<i>public forum</i>	<p>and are presented, if possible, in one or more publications and/or at one or more suitable international conferences.</p> <p>The Governing Board decides whether a project proposal is of interest to and appropriate for Stichting NLnet, possibly after consulting the Advisory Board and/or other experts in relevant field(s).</p>
<i>project planning / support</i>	<p>Examination of experiences with the NLnet projects identified a need for:</p> <ul style="list-style-type: none">• more PR concerning the current activity of projects;• more propagation in the early stages of projects;• more guidance while the projects are in progress to enable better deployment;• more follow-up work after projects have ended. <p>This problem has been taken up in the policies and planning for new projects. Also the way in which projects are supported from NLnet has been changed accordingly.</p>

3. NLnet Projects in 2004

3.1 Projects

Ambulant I *SMIL-2.0 player*

results

The Ambulant I project carried out in cooperation with CWI in Amsterdam, started in March 2003 to develop a multi-profile, multi-platform SMIL player for mobile and desktop systems running under a UNIX or Windows based OS. Besides supporting the W3C standard SMIL2.0 language, SMIL dialects like MMS 2.0 (Mobile Multimedia Messaging) and PSS-6/5/4(3GPP mobile multimedia) are also supported. Media types supported in the player are streaming video (mpg, DivX), streaming audio (wav, aiff, mp3), plain text, images (PNG, JPEG) and animation (SVG, Flash). The Open Source player is limited to codecs which are available under Open Source licensing terms. The player intends to be a reference base for further research, development and standardisation work.

The Ambulant 1.0 player has been released in July 2004. Source code and executables for this release and follow-up releases are made available via SourceForge. The number of downloads of the software (about 1000 in June 2004, about 7000 over the period September 2003 – July 2004) is high in comparison to other NLnet projects. Ambulant 1.0 has been made available for Linux, MacOS X, Win32 and WinCE PDA systems.

The player is used as an evaluation engine for new W3C development, and has been adopted by a number of external projects like Limsee2 at INRIA in France and HyperProp at PUC-Rio in Brazil. Quite some interest for Ambulant has been received from various groups working on media access for people with disabilities, e.g. the DAISY Consortium and the Japanese Society for Rehabilitation of Persons with Disabilities, but also from BBC Research, Sony Research and some large telecom companies.

NLnet has subsidized the work for an amount of €111.488, while CWI provided self-financing of €105.125 for this project.

More details about the project can be obtained via <http://www.ambulantplayer.org>.



Ambulant/NxG
SMIL-3.0 standard

The Ambulant Phase 2 project started in October 2004, again in cooperation with CWI in Amsterdam. The project will run until October 2006. It aims to contribute to the development of the SMIL 2.1, Timed Text and SMIL 3.0 specifications within the W3C framework, and simultaneously provide a reference implementation of these standards in the freely available Ambulant player (released under GPL): a multi-profile, multi-platform, fully SMIL-conforming player for mobile and desktop systems running under a UNIX or Windows based OS.

NLnet subsidizes this two year SMIL “next generation” project for a maximum of € 150.000, while CWI provides self-financing of € 85.000. More details about the project can be obtained via <http://www.ambulantplayer.org>.

BIND DLZ
dynamically loadable zones

results

The BIND DLZ (Dynamically Loadable Zones) project aims to develop extensions to the BIND V9 DNS server implementation, allowing DNS zone and record data to be stored in a database and modified without restarting or reloading the BIND V9 DNS server.

A generic interface and drivers for the Postgres, MySQL, Berkeley DB, ODBC and LDAP databases were completed and released in 2002 and 2003. In 2004 a report on performance testing was finalized, and some additionally sponsored work on a high-performance Berkeley DB driver was completed. The last release of DLZ was version 0.7.0 in April 2004. Extensive documentation, performance evaluation tools and a test data set were also released in April 2004.

The software and documentation have been made available via SourceForge <http://bind-dlz.sourceforge.net/>. The project e-mail list also resides there. SourceForge showed an average number of software downloads of 190 in May 2004 (in 2003: 100 downloads per month).

NLnet efforts to have the DLZ extensions bundled with the 'contributed' part of the official BIND V9 release have not yet been successful. Traffic and questions on the bind-dlz-testers mailinglist indicates that BIND DLZ is already in use at quite a few places though.

The project was started in December 2001 by Rob Butler in the USA. NLnet has spent € 5.035 in 2004 (€ 12.505 in 2003) on the project and contributed € 51.468 in total. The sponsored work was completed in Summer 2004.

Bits of Freedom
*watchdog digital rights
and privacy*

Stichting Bits of Freedom is a non-profit foundation based in Amsterdam, the Netherlands, which supports the privacy and digital rights for the community: <http://www.BoF.nl>. Bits of Freedom has a close relationship to the European Digital Rights organisation: <http://www.edri.org>. Major topics of concern to Bits of Freedom are: copyright, the balance between law enforcement and privacy, freedom of speech and spam. Issues like copyright and spam are also of concern to NLnet.

Bits of Freedom and XS4ALL organized a symposium on author rights in October 2004 in Amsterdam:

<http://www.auteursrechtsymposium.nl>.

NLnet sponsored this symposium together with the Dutch Ministry of Economic Affairs. The NLnet donation amounted to € 6.000. The symposium's contributions have been made available both on-line and in print under the title "Alternatieve modellen voor auteursrecht".

In 2004 work has been started in cooperation with Bits of Freedom and Spamvrij.nl to plan the development of an anti-spam policy document for internet service providers. Starting January 2005, the electronic newsletter of BoF will be supported by NLnet with a donation of € 10.000.

CAcert
free X.509 certificates

CAcert.org is a community initiative to provide a free X.509 digital certificate service. X.509 is used in network protocols like SSL, HTTPS etc., e-mail readers and browsers and security devices. NLnet has taken a different approach here in contrast to the usual project policy: support and donations are provided on ad-hoc basis when NLnet feels there is a need to. CAcert is an association based in Sydney, Australia.

In 2004 NLnet has sponsored CAcert with a donation of € 12.895 (in 2003 € 1.000), which enabled the CAcert executive board to present their services at the USENIX Annual Technical conference in Boston and at the LISA '04 conference in Atlanta, USA and to start widening their Web of Trust with CAcert Assurers and identification validation or Assurances. NLnet pushed for CAcert presentation and Assurances at the SANE 2004 conference in Amsterdam (together with the NLUUG) and "HCC dagen" in Utrecht (together with HCC staff), both in Holland. At the end of 2004, Holland was second on the list of top countries for number of listed Assurers. NLnet organized and helped with translation and



correction work for the CAcert web site and service provision.

It is not expected that CAcert needs further financial support after 2004. In general this alternative support policy will entail NLnet-internal manpower in addition to a donation.

Free Software Foundation (FSF)

The Free Software Foundation is known for its efforts in the area of freely distributable software development, most notably the GNU software and licensing policy. The well known GNU Public License (GNU GPL) and GNU Free Documentation License (GNU FDL) are used for many NLnet-sponsored projects. The FSF Europe section is concentrating on the European aspects of the FSF software philosophy.

In 2004 Stichting NLnet made a yearly donation of US\$ 15.000 to FSF US and of € 10.000 to its European sister organisation FSF Europe.

More details on FSF and FSF Europe can be found at <http://www.fsf.org> and <http://www.fsfeurope.org>.

Interactive Intelligent Distributed Systems (IIDS)

network/agent research

In 1999, Stichting NLnet and the Department of Sciences at the Vrije Universiteit Amsterdam agreed on a long-term collaboration in the field of Intelligent Interactive Distributed Systems (IIDS). Professor Frances Brazier heads the IIDS research group. The group's primary research directive is to devise a flexible, modifiable architecture for the development of large-scale interactive intelligent agents in a wide-scale distributed network. The research programme distinguishes three main lines of research:

- Middleware (an Agent Operating System [AOS] and an agent environment [Mansion])
- Services (including Configuration Services, Directory Services and Management Tools)
- Distributed Applications to explore requirements and to test results (mobile co-operative information retrieval agents, embedded internet services, system administration, distributed design).

NLnet's research director currently spends 80% of her time on the research group. At the end of 2004, the group consisted of Benno Overeinder (researcher), five PhD students: David Mobach, Reza Haydarlou, David de Groot, Guido van 't Noordende and Sander van Splunter (the latter three financed by the VU), Arno Bakker

(scientific programmer), Pieter van Langen (guest researcher) and Reinout van Schouwen (student assistant). In 2004 the emphasis of the implementation work was on providing the first full release of the AgentScape software. Research on distributed directory services, configuration services and management models, made significant progress.

Much of the AgentScape middleware development is done in close collaboration with professor Andy Tanenbaum and professor Maarten van Steen of the Computer Systems group.

The ALIAS project which ended in 2003, has been followed up in 2004 with an interdisciplinary project on identity and integrity management, also named ALIAS, in cooperation with the Computer and Law Institute of the VU. Three PhD students are working in this project. Another spin-off of ALIAS was a 2004 proposal for research on integrity management within the Courts of Amsterdam named ACCESS. This project will start in 2005 with funding from the NWO ToKen program.

results

IIDS research results have been published in the AI & Law Journal (2 articles), AIEDAM Journal (2 articles) and Applied Artificial Intelligence Journal. Presentations of results were given at the First IEEE Symposium on Multi-Agent Security and Survivability, AP2PC, AISB 2004 Symposium, EUNITE 2004, EUMAS'04, PARA'04, SANE 2004, LEA 04, and BNAIC'04. The IIDS group has also contributed significantly to the Autonomous Systems working group of ECP.nl.

Details of the work and publications can be obtained from <http://www.iids.org>.

NLnet contributed € 371.654 in 2004 (€ 335.373 in 2003) to support the IIDS group, in addition to the extra time (0.4 fte) invested by Brazier directly.

Stichting NLnet Labs
*internet software
development*

Stichting NLnet Labs was established in late 1999 with a mission to further develop Open Source software for the internet and all other related scientific developments. The laboratory, a long-term development environment for up to six people, is fully financed by Stichting NLnet and was funded with € 340.000 in 2003 (€ 360.000 in 2003; the budget for 2005 is € 447.000).

NLnet Labs is situated in Amsterdam in one of the Matrix buildings of the ASP (Amsterdam Science Park). Ted Lindgreen is the managing director.



<i>Governing Board</i>	At the end of 2004, the Governing Board consisted of Teus Hagen (Stichting NLnet, chair), Frances Brazier (secretary, Stichting NLnet), and Wytze van der Raay (treasurer, Stichting NLnet).
DNSSEC	NLnet Labs continued its work for the deployment of DNSSEC for large domains in 2004 in two ways. Firstly by actively participating in a number of important fora like IETF, RIPE, ISOC international and the DNSSEC deployment group. Secondly by developing secure aware tools: a demo resolver, a DNSSEC debugging tool (<i>drill</i>), and a library with various DNSSEC tools (<i>ldns</i>).
<i>NSD root server for DNS</i>	In cooperation with RIPE, development work was started in 2002 to write a new DNS implementation, called NSD. This authoritative-only server is geared specifically to large and/or important authoritative name servers and does not contain any code from existing implementations. A rewrite of the NSD software was completed in 2003 and NSD 2.0, with full support for DNSSECbis, was released early 2004. It was followed by a number of maintenance releases, NSD 2.1.5 being the last release in 2004. NSD runs on two root nameservers, a few percent of all TLD servers, and various other nameservers. France was the first country-level domain to use NSD. NSD is currently in use at several other country-level domain operators as well.
IETF, ICANN, ISOC, RIPE	With Jaap Akkerhuis joining the NLnet Labs staff in August 2004 as a new employee, the work is shifting to more consultancy and training work within various standardisation bodies and organisations. Ted Lindgreen chairs the RIPE TechSec working group and Jaap Akkerhuis is one of the chairs of the RIPE DNS working group. NLnet Labs participates in a number of IETF working groups (dnsext, ipv6, v6ops, zeroconf, dnsop, and rtgarea) and RIPE working groups (DNS, IPv6, routing and TechSec).
<i>IPv6</i>	For RFC 3750 (Unmanaged Networks IPv6 Transition Scenarios) and RFC 3904 (Evaluation of IPv6 Transition Mechanisms for Unmanaged Networks) NLnet Labs was co-author.

See <http://www.nlnetlabs.nl> for more detailed information on the work and the availability of the software.

Stichting NLnet Labs publishes its own annual report.

Stichting LogReport Foundation

log file analysis and reporting

Stichting LogReport Foundation was founded in 2000 as a formal entity to support the activities of a group of developers working to provide report generation software and support for network system administrative log data.

Governing Board

The members of Stichting LogReport's Governing Board in 2004 were: Joost van Baal (chair, Tilburg University), Wytze van der Raay (treasurer, Stichting NLnet) and Jakob Schripsema (secretary, Atos Origin).

international team

Francis Lacoste worked since August 2003 through a fixed-price contract on the development of Lire 2.0, in cooperation with a new developer Wolfgang Sourdeau in Canada. This work was released and completed in October 2004.

results

There is an on-line Responder Service running on LogReport's own server <http://www.logreport.org/> hosted by NLnet Labs, which also hosts the LogReport mailing lists and web site.

In 2004, four releases of Lire, including the main Lire 2.0 release in September 2004, were made available from the LogReport web site (<http://www.logreport.org>) and through SourceForge (<http://sourceforge.net/projects/logreport>). RPM packages have been made available for Fedora Core, Debian, and Mandrake Linux distributions.

There was an average of 450 (RPM) software downloads monthly. In addition, 400 – 700 tarball downloads take place each month. Based on numbers supplied by the Debian Popularity contest, it is estimated that 500 – 600 systems with Debian Linux have a Lire Debian package installed.

Stichting LogReport Foundation was fully sponsored by NLnet. The total amount sponsored by NLnet in 2004 was € 1.725 (€ 43.259 in 2003).

Stichting LogReport Foundation published its own annual report over 2004. The board has decided to dissolve the foundation per December 30, 2004. Volunteers are continuing Lire development and support activities, and the LogReport server will remain in operation, thanks to hosting donated by NLnet Labs since the summer of 2003, and mirrors provided by Guus Sliepen (March 2003 – November 2004) and University of Tilburg (from March 2005 onwards).



Open Sesame
*web RDF querying
framework*

Open Sesame is a project started by Aduna b.v. (formerly named Administrator Nederland) in March 2002 and ending in January 2004. Open Sesame II was started in January 2004 and will end in September 2005. This follow-up project puts emphasis on better usability of the software and wider deployment and cooperation with other development groups.

The goal of Open Sesame is to develop a scalable, modular architecture for persistent storage and querying RDF and RDF Schema, the proposed W3C standard modelling languages for the Semantic Web. Key features of Open Sesame are: open source, available under LGPL, scalability, a query engine for RQL, portability, repository independence, extensibility, and separating the communication from the actual functionality by the use of protocol handlers.

The target audience for Sesame is the RDF/Semantic Web community, e.g. SWAP (Semantic Web and Peer-to-Peer), a European Union project.

results

The definitive Sesame 1.0 software release was delivered in March 2004. In the period from January to April 2004 a study was conducted by Aduna to define a suitable strategy and work plan for spreading the software to a wider audience by improving its usability and establishing a firmer grounding in the development community. The plan was published in April 2004, and the real Open Sesame Phase 2 work started in May 2004.

Communication with the developer and user community was strongly improved by establishing a web based forum at <http://www.openrdf.org>. The number of participants and contributions in the forum and the number of website visits all showed healthy growing trends. Open Sesame has been presented and demonstrated at ISWC 2004 (semantic web conference) in Japan and SANE 2004 in Amsterdam.

A number of improved versions of the Open Sesame software have been released throughout 2004 via SourceForge (<http://www.sourceforge.net/projects/sesame>). The last Open Sesame release in 2004 was VI.1. The average number of software downloads per month in 2004 was 500 (2003: 400).

Technical contributions to the project have been received from a.o. OntoText (Bulgaria), University of Karlsruhe, Oracle (Germany), and Vrije Universiteit Amsterdam. Both the Sesame I project (of about 2.6 person years) and the Sesame II project (of about 1.4 person years) are fully sponsored by NLnet. In 2004, NLnet contributed € 49.124 (in 2003: € 60.554).

ReX

international exchange

For the Research Exchange Programme (ReX) <http://www.NLnet.nl/project/rex/>, one exchange that was approved in 2001 has taken place in 2002/2003 and was delayed even into in 2004: *Lund University (Sweden) and Indian Statistical Institute (India)*. No final report has been received for this exchange, concerning the development of a software oriented stream cipher for secure communication over networks.

NLnet did not incur any more costs in 2004 for the ReX program.

The program was initiated in 1999 in cooperation with the USENIX Association on a 50/50% base. Due to economic limitations on the USENIX side, the ReX program was frozen in early 2002. The committed projects have been continued up to summer 2004 and were administered by NLnet. ReX has been discontinued.

SANE

OSS community forum

The Stichting SANE foundation organizes once every two years a conference targeted at system / network administrators and network engineers. The conferences have been organized until now in close cooperation with NLUUG, the Dutch UNIX users group, and the USENIX Association in the USA.

governing board

The Stichting SANE governing board consists of Bob Eskes (chair; NLUUG board member), Jos Alsters (secretary; NLUUG and NLnet board member) and Wytze van der Raay (treasurer; NLnet board member).

The foundation publishes its own yearly report.

NLnet has provided a financial guarantee and an interest-free loan for every conference until now, and has provided organisational and administrative support.

SANE2004 conference

SANE 2004, the fourth Systems Administration and Network Conference in Europe, was held from September 27 to October 1, 2004 at the RAI Congress Centre in Amsterdam. The event featured a three-day tutorial program, followed by a two-day technical



program. In addition, a poster session and a Free Software Bazaar were held in conjunction. Several of the active NLnet projects presented their work at SANE 2004: Open Sesame, Ambulant, CAcert, Globule and IIDS. Stichting NLnet provided a guarantee of € 40.000 and an interest-free loan of € 40.000 to Stichting SANE for SANE 2004. The loan was fully repaid, and the guarantee remained unused, thanks to the slightly positive financial result of SANE 2004.

The next SANE conference, SANE 2006, is scheduled for May 2006, at the Aula Congress Centre of the Technical University Delft. NLnet will be supporting this event again.

Stichting SchoolLan
network infrastructure

The SchoolLan project focuses on the development of a small, robust, and centralised network infrastructure targeted for primary schools.

SchoolLan initially started in 1999 as a technical concept and tools for configuration development by Stichting NLnet.

foundation

In order to boost the cooperative development efforts, NLnet decided in mid 2001 to create an interregional coordination centre: Stichting SchoolLan, a foundation which employed three to four full-time technical employees and two trainees. Stichting SchoolLan has been fully sponsored by Stichting NLnet. The foundation streamlined the SchoolLan developments, facilitated the distribution of the SchoolLan software with a CD-rom and extensive documentation, and supported the local SchoolLan initiatives. See <http://www.schoolan.nl/> for more information (in Dutch!).

At the end of 2003 Stichting SchoolLan received an extra donation from NLnet in order to start an intensive marketing campaign to increase the number of schools with SchoolLan support contracts via the foundation. In the spring of 2004 the conclusion was reached that the support service by the foundation had to be stopped due to lack of market penetration, and thus lack of economic viability. As of August 1, 2004, the Stichting SchoolLan office has been closed down, and all employed staff have been dismissed.

Efforts have been started to raise interest from commercial entities to continue development and support of this Open Source technology, based on the SchoolLan CD release 5.2 which appeared in September 2004. 50

SchoolLan R5.2 CD's have been distributed. At the end of 2004 four entities had signed a GPL based agreement with Stichting SchoolLan to participate in a platform aimed at continuation of SchoolLan.

Trials to get support from governmental bodies to secure a future for SchoolLan failed. An action to raise awareness of the Open Source initiative for primary schools and education with political parties in the parliament failed.

Governing Board

The Governing Board of Stichting SchoolLan consists of Teus Hagen (chair, Stichting NLnet), Wytze van der Raay (treasurer, Stichting NLnet), and Kees Keijzers (secretary, University of Nijmegen).

Stichting NLnet has registered the trademark SchoolLan in the Benelux to prevent misuse by other parties.

The SchoolLan web and development software tree is hosted on the NLnet web server.

In 2004 NLnet spent € 117.783 on the SchoolLan project (2003: € 222.171). NLnet has provided two loans to Stichting SchoolLan (€ 6.000 and € 12.000) in July/August 2004 to cover cash flow problems of the SchoolLan foundation, and anticipates a loss of € 7.500 on the repayment of these loans.

3.2 Other activities in 2004

Stichting NLnet is continually in pursuit of new projects. To this purpose, NLnet maintains relations with organisations such as USENIX, NLUUG, RIPE and Ministry of Economic Affairs. Relations with universities are another potential source of projects.

OASE

Open Source and business relations with some small high-tech companies and the Ministry of Economic Affairs were established by Stichting NLnet. Teus Hagen takes part in an Open Source specialist panel for OASE, an Open Source stimulation project from Syntens (Ministry of Economic Affairs) for mid-size and small businesses.

Internet Software Consortium (ISC)

ISC governs the development of BIND V8 and V9, as well as DHCP software. These software packages implement the domain name server and dynamic host configuration protocols. ISC runs various research/development projects including DNSSEC, root server anycast, BIND V9 performance and DNS API.



ISC has achieved a full non-profit status in 2004.
ISC has initiated a BIND Forum for the DNS BIND V9 software distribution and support.
Teus Hagen is a member of ISC's Board of Directors.

Stichting ThinkQuest

Stichting ThinkQuest Nederland (a non-profit organisation) governs the promotion of internet use in education and tries to stimulate the development of educational internet applications. Stichting ThinkQuest was founded in 1999 with financial support from NLnet, SURFnet and the Ministry of Education.

After a trial period of 2 years, all website contest related activities were transferred at the beginning of 2004 to Stichting Kennisnet, an internet service and content provider exclusively for primary and secondary schools. StichtingThinkQuest (currently known as TQ-NL to avoid confusion with the website contests) reconsidered its mission, and took the first steps to initiate a new programme for ICT and Education in 2005. Support was allocated to iEARN (International Education And Resource Network) for a period of 2 years (€ 25,000/yr) to organise an international gaming contest of which the results will be presented at the iEARN conference in the Netherlands in 2006.

Frances Brazier chairs the Board of Stichting ThinkQuest.

4. Stichting NLnet organisation

NLnet's history started in April 1982 with the announcement of a major initiative to develop and provide network services in Europe.

NLnet birth date

Stichting NLnet was formally established as a "stichting" (Dutch for foundation) on February 27, 1989 and is situated in Amerongen, the Netherlands. It is registered at the Chamber of Commerce, Amsterdam under number 41208365. Since 1999, Stichting NLnet has had a non-profit tax status (so-called Article 24 status, "algemeen nut status").

funding

In November 1994, NLnet Holding BV was formed by the foundation in order to create a commercial base for its internet activities. The merging of NLnet's Internet Service Provider (ISP) activities with MCI (formerly WorldCom/UUnet) in 1997 provided Stichting NLnet with the means to actively stimulate the development of network technology and to make this freely available to the community in its broadest sense.

NLnet foundations

To be able to maintain a clear separation between Stichting NLnet's funding operations and the project technology related operations, Stichting NLnet has created separate legal entities for some of its more specialized projects, such as 2000's Stichting NLnet Labs and Stichting LogReport and 2001's Stichting SchoolLan. These foundations, directed in full or in part by Stichting NLnet, have obtained a full non-profit tax status.

Governing Board

The Governing Board of Stichting NLnet consists of:

<i>function</i>	<i>name</i>	<i>end of current term</i>
chair	Teus Hagen	May 1, 2007
treasurer	Wytze van der Raay	May 1, 2007
secretary	Frances Brazier	May 1, 2007
member	Jos Alsters	May 1, 2007
member	Hans Onvlee	January 21, 2007

Advisory Board

An Advisory Board of three people supports the Governing Board of Stichting NLnet:

- *advisor on technology*: Paul De Bra, full professor, University of Eindhoven;
- *advisor on legal affairs*: Anne-Marie Kemna, lawyer, Van Diepen Van der Kroef Advocaten;



- *advisor on finances*: Erik Esseling, director, Esseling Beheer b.v..

For external (financial and legal) advice and consultancy, Stichting NLnet is supported by: CMS Derks Star Busmann (legal and tax advice), PriceWaterhouseCoopers (accountancy and salary affairs), and Attica Vermogensbeheer (investment management).

operations

For daily operations, a Board of Directors has been selected from the Governing Board:

general director: Teus Hagen

financial director: Wytze van der Raay

research director: Frances Brazier

Frances Brazier holds a part-time position (two days per week) as full professor at the Vrije Universiteit (IIDS research group) in Amsterdam.

webmaster

NLnet's website www.nlnet.nl is maintained by Mark Overmeer (MARKOV Solutions) in close cooperation with the Board of Directors and the project leaders.

5. Finances

Stichting NLnet finances its projects and activities primarily from the revenues obtained from its invested capital. If possible, subsidies from the government and/or third parties will also be used for project activities, but to date this has not been the case.

5.1 Fiscal status

Stichting NLnet has not been running a commercial company since mid 1994 and does not plan to do so in the future. Therefore, the foundation is not subject to Value Added Tax (BTW in Dutch) or company tax (vennootschapsbelasting in Dutch).

As of March 9, 1999, Stichting NLnet has been classified, at its request, by the Dutch tax office (Department Registratie en Successie) as an entity with general benefit objectives within the meaning of the Successiewet 1956 (article 24 sub 4).

In addition to this, Stichting NLnet obtained a so-called place of residence declaration (woonplaatsverklaring) from the Dutch tax office for companies on June 8, 1999. This declaration enables the foundation to reclaim part of the foreign taxes withheld on foreign dividends. In September 2001, a request was filed with the tax office to be exempt for source tax withheld on USA dividends, according to article 36 of the Double Taxation Convention between the USA and the Netherlands. This request was granted on January 16, 2002.

5.2 Administration

Salary administration has been contracted to the Financial Management Solutions group of PricewaterhouseCoopers in Rotterdam.

PricewaterhouseCoopers has been charged with compiling and auditing Stichting NLnet's Annual Accounts in 2004. The accountancy report is a separate document with this annual report.



5.3 Cost of activities in 2004 and budget for 2005

The cost of Stichting NLnet's activities in 2004 is summarised and compared with numbers for 2003 below:

	2004	2003
Cost of projects	1.051.593	1.287.286
Cost of staff	343.628	338.187
Depreciation of inventory & equipment	6.593	3.661
Other costs	47.539	45.833
Total	1.449.353	1.674.967

A specification of the "Cost of projects" item in relation to the original budget and to previous years follows:

Project	Cost 2004	Budget 2004	Cost 2003	Cost 2002	Total cost until 2004
A-A-P	0	0	50.454	52.247	102.701
AGFL	0	0	0	0	113.768
AHA!	0	0	40.613	83.402	169.978
ALIAS	0	0	7.102	103.204	158.322
Ambulant	78.747	50.000	50.000	0	128.747
Atom-Based Routing	0	0	50.051	15.533	65.584
Bits of Freedom	6.000	0	0	0	6.000
CAcert.org	12.895	0	1.006	0	13.901
cp2pc	0	0	1.402	60.498	61.900
DLZ	5.035	7.500	12.505	32.813	51.468
EuroBSDCon	0	0	-30	2.842	2.812
FFII anti-software patents	0	0	5.000	0	5.000
Free Software Foundation	12.044	12.500	0	14.837	64.373
FSF Europe	10.000	10.000	0	5.000	15.000
Globule	46.586	0	0	0	46.586
Hackathon OpenBSD	0	0	8.741	0	8.741
HAL2001	0	0	0	0	10.000
IIDS	371.654	400.000	335.373	307.199	1.446.380
ISC/BIND V9	0	0	0	0	347.562
LCC	0	0	0	45.791	45.791
LogReport	1.725	0	43.259	92.480	296.834

Project	Cost 2004	Budget 2004	Cost 2003	Cost 2002	Total cost until 2004
Mail::Box	0	0	22.252	21.897	44.149
MAPS	0	0	0	0	22.077
NILO	0	0	0	0	16.832
NLnet Labs	340.000	375.000	360.000	316.000	1.403.165
Open Sesame	49.124	130.000	60.554	112.238	221.916
ReX	0	0	16.832	5.197	57.982
SANE	0	0	0	5.000	5.000
SchoolLan	117.783	110.000	222.171	239.206	778.093
SIRS	0	0	0	0	356.218
ThinkQuest	0	0	0	0	226.890
TimeWalker	0	0	0	50.000	150.000
Twinsite	0	0	0	0	4.538
YAPC::Europe 2001	0	0	0	0	1.990
Other	0	0	0	0	2.326
New projects	0	605.000	0	0	0
Total	1.051.593	1.700.000	1.287.286	1.563.384	6.452.625

The provisional budget for 2005, as approved by the board, is as follows:

	Budget 2005
Cost of projects	1.750.000
Cost of staff	350.000
Depreciation of inventory & equipment	3.500
Other costs	55.250
Total	2.158.750



The specification of the “Cost of projects” item, expanded with an extrapolation to 2006 for multi-year projects, is as follows:

Project	Budget 2005	Budget 2006
Ambulant	75.000	56.250
Bits of Freedom	10.000	
Free Software Foundation	12.500	12.500
FSF Europe	10.000	10.000
Globule	30.000	
IIDS	400.000	475.000
NLnet Labs	447.000	405.000
Open Sesame	85.000	
SchoolLan	p.m.	
New projects	680.500	841.250
Total	1.750.000	1.800.000

5.4 Investment policy

On January 1, 2004, Stichting NLnet had a capital of 25,2 million euro at its disposal. The majority of this capital, namely 24,0 million euro was invested under an investment management agreement with Attica Vermogensbeheer B.V., with funds held at Effectenbank Stroeve in Amsterdam as the custodian.

Attica Vermogensbeheer was selected as NLnet's second investment manager in July 2001, and has become NLnet's single investment manager in November 2002. They are following an alternative investment management strategy, based on alternative investments like market-neutral funds and long-short funds (also known by the more generic name hedge funds) and geared towards positive, low-volatility net returns. Attica is charged with obtaining a positive net investment result in absolute terms, where the quality of the results is measured by comparing both the return and the risk (expressed as volatility) with those of a composite benchmark.

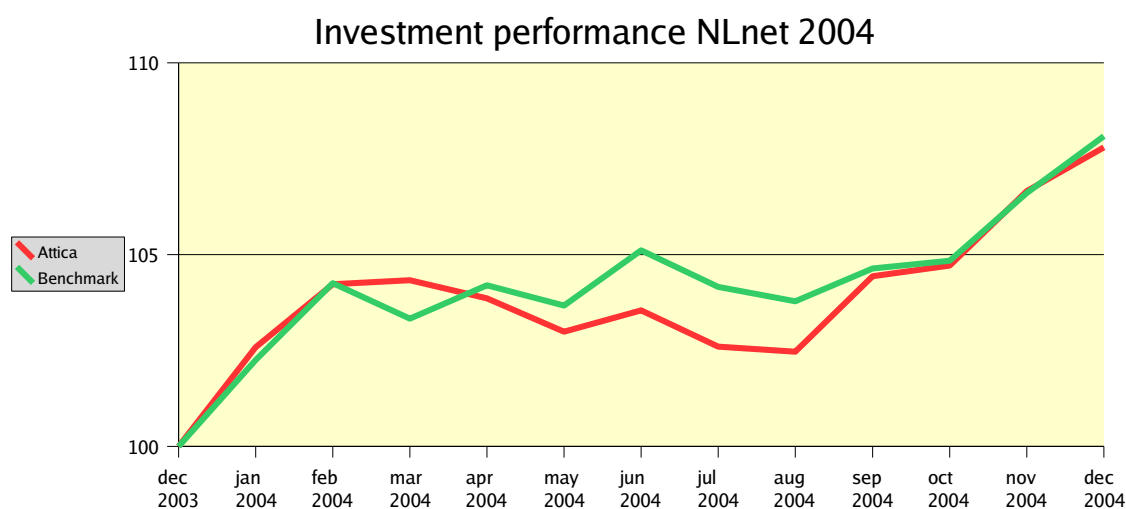
The composite benchmark consists of the weighted average of a number of financial indices:

Weight	Index
55%	MSCI Europe Index
15%	MSCI USA Index
20%	EFFAS EMU Government Bond Index (maturity > 1 year)
10%	EFFAS USA Government Bond Index (maturity > 1 year)

In 2004, the alternative investment management approach resulted in an absolute positive net return of +7,8% (in 2003: +14%), which lagged slightly behind the benchmark return of +8,1% (in 2003: +9,4%).

Looking at the longer term performance, over a period of 3¼ year since October 1, 2001 (the start of the performance measurement period with Attica), the average annual return was +5,13%, which exceeded the benchmark return of +0,35% quite significantly. Also, volatility of the benchmark was about 11,8% over this 3¼ year period, while the Attica-managed portfolio experienced a volatility of only 6,9% during the same period.

A graphical representation of the investment performance in 2004 is shown below:



At the end of 2004, Stichting NLnet's capital had increased to 25,5 million euro, including unrealised investment results. 24,4 million euro of this end-of-year total was managed by Attica Vermogensbeheer. To cover the liquidity needs over the year 2004, an amount of 1,4 million euro has been withdrawn from the managed capital over the period December 2003 – March 2004.

5.5 Cost and revenue of investment management

The cost and revenue of managing the invested capital of Stichting NLnet in 2004 can be summarised and compared with numbers for 2003 as follows:

	2004	2003
Realised results from investment funds	312.813	-381.897
Realised results from equities (incl. derivatives)	78.472	0
Realised results from bonds	41.223	72.914
Realised results from forward exchange contracts	443.788	1.167.354
Realised currency differences in cash accounts	-58.059	-150.141
Investment revenue: interest on bonds and deposits	7.745	36.765
Investment revenue: dividends on equities and funds	64.610	63.130
<i>Total realised result</i>	890.592	808.126
Delta in unrealised result on investment funds	730.776	2.122.508
Delta in unrealised result on equities (incl. derivatives)	-98.954	94.622
Delta in unrealised result on bonds	-27.720	30.836
Delta in unrealised result on forward exchange contracts	449.746	66.429
<i>Total delta in unrealised result</i>	1.053.848	2.314.395
<i>Total result (realised + delta unrealised)</i>	1.944.440	3.122.521
Transaction costs and custody charges	52.123	76.254
Investment management fees	200.569	231.499
<i>Total cost of investments</i>	252.692	307.753
<i>Net capital gain / loss (-)</i>	1.691.748	2.814.768

The unrealised result of the investment portfolio at the end of 2004 and at the end of 2003 can be summarised as follows:

	2004	2003
Unrealised result on investment funds	1.744.836	1.014.060
Unrealised result on equities (incl. derivatives)	0	98.954
Unrealised result on bonds	0	27.720
Unrealised result on forward exchange contracts	671.494	221.748
<i>Total revaluation reserve ultimo 2004 (2003)</i>	2.416.330	1.362.482
<i>Idem ultimo 2003 (2002)</i>	1.362.482	159.651
<i>Increase / decrease (-) of revaluation reserve</i>	1.053.848	1.202.831



