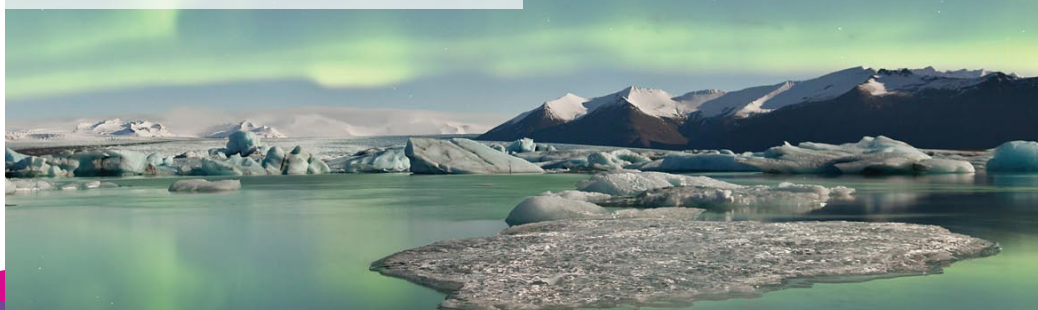




# TERENA NETWORKING CONFERENCE 2012

21 - 24 May, Reykjavik, Iceland

## PRELIMINARY PROGRAMME



## 'NETWORKING TO SERVICES'

BITS & WIRES

SUPPORTING COLLABORATION

SOCIAL & SECURE

INFRASTRUCTURE & SERVICES

USING THE STUFF



UNIVERSITY OF ICELAND

The TERENA Networking Conference 2012 is organised by TERENA, the Trans-European Research and Education Networking Association and hosted by the Icelandic National Research and Education Network (RHNET) and the University of Iceland.

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[tnc2012.terena.org](http://tnc2012.terena.org)

# PRELIMINARY CONFERENCE PROGRAMME

The full programme for TNC2012, including the latest changes and updates can be found at:  
[tnc2012.terena.org/schedule](http://tnc2012.terena.org/schedule)

## ‘NETWORKING TO SERVICES’

Networking in research and education today means much more than simply moving bits and bytes from place-to-place. The services deployed on top of the network are now more crucial than ever before, and social contact enables more effective international collaboration for both service providers and users.

In 2011, networks became the central component of a digital ecosystem that is transforming research, education, teaching and human interaction on all levels.

The conference will focus on network technologies, infrastructures and services that support research and education, examining the following areas: *bits & wires, supporting collaboration, infrastructure & services, social & secure, and using the stuff.*

The conference programme is composed of four parallel tracks with presentations of selected papers and talks by invited speakers. Each day, there will be a plenary session in which prominent experts will deliver keynote presentations. Keynotes will set the theme for the conference and introduce the topics that will be discussed in more detail in the parallel sessions.

The conference sessions will be streamed live and will be archived for future reference.



The GÉANT network is the fast and reliable pan-European communications infrastructure serving Europe's research and education community. Co-funded by Europe's NRENs and the European Union, the GÉANT network is now supported by a third consecutive project (GN3), which has a clear focus on developing and rolling out innovative networking tools and services in collaboration with NRENs, and aims to serve the evolving needs of the research and education community. The project's core objective is to deliver real value and benefit to society by enabling research communities across Europe and the world to transform the way they collaborate on ground breaking research. Presentations about the GÉANT network and other parts of the GN3 project are included in the appropriate parallel sessions throughout the conference programme.

# Opening Plenary

Our opening speaker, Hilmar Veigar Pétursson, B.Sc. Computer Science is the Chief Executive Officer of CCP Games, Iceland. He will share experiences and divulge hard-learned lessons from managing the massive, 400,000-person, multiplayer game, EVE Online, including technical concerns and interaction with vast user communities.



**Hilmar Veigar Pétursson** is a widely recognised innovator in the areas of virtual world development, publishing and technology and has brought CCP to the forefront of the video game industry. He was named as one of the twenty Most Influential People in the MMO Industry in 2007 and 2008 by Beckett Massive Online Gamer Magazine. Originally joining CCP in 2000 as CTO, Hilmar spearheaded the engineering efforts necessary to bring CCP's critically acclaimed EVE Online to life in 2003. Following his tenure as VP of software development for the OZ Studios division of OZ.com, Hilmar was CTO of SmartVR, an OZ.com spin-off based on that company's multi-user, virtual reality technology. He is active on a number of boards and committees relating to Icelandic information technology and innovation.

## BITS & WIRES

The networks at the core of our interconnected infrastructure provide the essential foundations for all our services. In these sessions, we will address a wide range of topics: optical networking and developments for 100G, IPv6 and plans for various network testbeds, the development of new control plane protocols, network management tools, and virtualisation techniques to deliver networking as a service.

For over a year, APNIC, the Regional Registry for the Asia Pacific Region has exhausted its supply of IPv4 addresses. As demand for IPv4 addresses continue, Geoff Huston will examine the choices being made by service providers and how these will affect Europe and the rest of the world.



**Geoff Huston** B.Sc., M.Sc., is the Chief Scientist at APNIC, and has been involved with the development of the Internet for many years in Australia, where he was responsible for the initial deployment of the Internet in the academic and research sector. He has extensive experience in Internet services and architecture in the ISP and Telecom sectors. He has served on the Internet Architecture Board of the Internet Engineering Task Force and has chaired a number of working groups. His current research interests include BGP and the measurement of IPv6 deployment.

## SUPPORTING COLLABORATION

There has been much activity in recent years to develop middleware and to establish AAI federations for a wide range of requirements. The topics to be addressed in these sessions will include developments in AAI and identity management to meet the growth in the number of users and in the range of application communities with AAI requirements, particularly in mobile communications and roaming.

We have come a long way since the early days of online security and cryptography - from the closed world of the shared secret to open sharing via social media - and an uncomfortable relationship between user experience, privacy and security has evolved. Nicole will look at the tensions between these three bedfellows and the challenges to research and education as we try to meet the needs of all three.



**Nicole Harris** has fifteen years of experience in the education sector as an advisor and project manager, with a focus on access and identity management. Nicole is currently based at JISC Advance in the UK and is the Consortium Manager for the Shibboleth Consortium and Coordinator for REFEDS - the Research and Education Federations group. She was instrumental in establishing the UK Access Management Federation, which is currently the largest research and education federation in operation. Nicole is a frequent blogger, and is passionate about supporting the open agenda in education and research.

## USING THE STUFF

Input from the individual users and communities who rely on advanced networks and services is essential to an understanding of the ever-changing requirements of collaborative services, such as e-learning and mobile roaming. These sessions will include presentations from, or on behalf of, different user communities, including large scientific communities with demanding requirements, and those developing network monitoring.

The sessions will address the networking requirements for applications, as well as innovative developments in conferencing, media and publishing.

Using the higher education CISO (Chief Information, Integration and Infrastructure Officer) as a vantage point, Jan-Martin will explore the NRENs' role in building the global exo-structure as a potential, trusted, Cloud broker.



**Jan-Martin Lowendahl**, Ph.D (Chemistry) is a research director in Gartner Research, where he focuses on higher-education governance, strategy and emerging trends, and how they impact institutional strategic planning and how they need clear governance. The methodologies for strategic planning and frameworks for governance are specifically focused on stakeholder communication, including identity and access management, learning technologies and administrative and academic systems in higher education. Based in Europe, he has a special interest in European higher education issues such as the Bologna Process.

## INFRASTRUCTURE & SERVICES

Many important advances are being deployed in the services and applications on top of networks, providing essential services, based on Cloud technology, and production Grids to a growing number of users.

In these sessions, we will talk about the development of many new infrastructures and services. These include the Cloud services being developed by NRENs and by others, and the ongoing work to provide easier to use and more scalable data, and media services, such as video conferencing, data sharing, the management and delivery of educational video content, and the move to high-definition video. The sessions will also address energy efficiency and service management of Internet technology.

## SOCIAL & SECURE

The challenges of social networking are important issues that cut across all aspects of networks and services. Security and privacy are extremely important concerns, and there is a critical need to balance policies between the requirements of Internet governance and Internet democracy. Networking security talks will consider topics such as the scalable management of firewalls and the security implications of IPv6. Governance issues and security requirements in complex management domains will also be addressed, as well as security for applications and the development of social tools for security analysis.

Jacob Appelbaum will present practical censorship resistance for everyday users using the online anonymity network, Tor, he helped create, as well as some technical and political issues with deploying such technology.



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**Jacob Appelbaum** is an accomplished photographer, software hacker and world traveller. He works as a developer for The Tor Project and as a staff research scientist at the University of Washington Security and Privacy lab. He trains interested parties globally on how to effectively use and contribute to the Tor network. He is a founding member of the hacklab Noisebridge in San Francisco where he indulges his interests in magnetics, cryptography and consensus-based governance.

## Closing Plenary

The unpredictable and transformative results of four decades of dramatic change in the Internet have impacted the way more than two billion people connect and communicate. The Internet Society promotes an Internet that serves as an open platform for innovation, economic development, and social progress - even as it continues to grow and evolve.



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**Leslie L. Daigle** is the Chief Internet Technology Officer (CITO) for the Internet Society, Chair of the Internet Architecture Board (IAB) and Working Group Chair in the Internet Engineering Task Force (IETF). Leslie is currently engaged in a global, collaborative initiative to accelerate the migration of the Internet's technology infrastructure to IPv6 protocols. Her other areas of technical expertise include domain name management, the integration of mobile devices with network architecture, unwanted online traffic, and the management of DNS-based services.

# RELATED EVENTS AND MEETINGS

Up-to-date meeting information can be found at:  
[tnc2012.terena.org/schedule/meetings](http://tnc2012.terena.org/schedule/meetings)

## Sunday 20 May

**REFEDS workshop**

**TF-CPR**

**TF-NOC**

**Mantychore Project: OpenNaaS, a toolkit for IP Networks as a Service**  
(registration required)

## Monday 21 May

**TERENA Technical Advisory Council**  
(closed meeting)

**BoF: NRENs and healthcare - the challenges of connecting medical center**

**PERT workshop**

## Tuesday 22 May

**ADVA Optical Networking Symposium 2012 - Let's advance your network, now!**  
(registration required)

**BoF: Filesender**

**BoF: How can NRENs benefit from the use of social media?**

## Thursday 24 May

**TERENA General Assembly**  
(closed meeting)

## GIVE A LIGHTNING TALK

Lightning talks are five-minute presentations focusing on one key point; this can be an idea, a successful project, a cautionary story, a collaboration invitation, a quick tip or a demonstration.

Use this time wisely to present the pertinent message of the subject matter without the need for background history, the problem space or a business-case justification.

Lightning talks are an excellent opportunity for first-time speakers.

We will have sixteen lightning talks at TNC2012 on **21 May 2012** from 16:00 - 17:30. Email [<lightning-talks@terena.org>](mailto:lightning-talks@terena.org) including your biography, a proposed title and a short description of your talk. The deadline for submissions is **13 April 2012**.

For more information visit:  
[tnc2012.terena.org/participate](http://tnc2012.terena.org/participate)

# REGISTRATION INFORMATION

**Conference registration will be handled in-house by TERENA:**

[tnc2012.terena.org/register](http://tnc2012.terena.org/register)

Please register for the TERENA Networking Conference 2012 online or using the downloadable registration form (pdf). If you use the pdf registration form, please follow the instructions for payment of fees carefully and return the form by fax to TERENA.

Note that payment by credit card using the faxed form is not possible, in many cases due to increased security regulations. If you want to pay by credit card, online registration is strongly encouraged.

Once you have registered, you will receive an acknowledgement by email. TERENA's terms and conditions of registration, cancellation and payment are on the back of the registration form and on the online registration pages.

## ON-SITE REGISTRATION AND INFORMATION DESK

From Sunday, 20 May until Thursday, 24 May, a registration desk will be located by the entrance on the ground floor of Háskólabíó - the University Cinema in Reykjavik for on-site

registration.

## REGISTRATION FEES

### Conference registration fee

Early registration (until 13 April)	€ 500
Registration (14 April until 11 May)	€ 550
Desk registration (after 11 May)	€ 600 <sup>1</sup>

The conference registration fee includes:

- access to all conference sessions
- all conference materials (programme, conference bag, stationery and related materials)
- Opening reception (Monday, 21 May)
- Gala evening (Wednesday, 23 May)
- lunches (on 21, 22 and 23 May)
- refreshment breaks

<b>Accompanying person's registration fee</b>	€ 100
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The accompanying person's registration fee includes:

- Opening reception (Monday, 21 May)
- Gala evening (Wednesday, 23 May)

<b>Additional Gala evening ticket</b>	€ 65 <sup>1</sup>
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## CALL FOR SPONSORED STUDENT POSTER AWARD

Sponsored by Cisco Systems  
and the Internet Society

There are a limited number of sponsored registration places for bona-fide students from relevant fields. Eligible students will receive free admission to the conference, plus a limited amount of travel support and are expected to present a poster at the conference. The poster will also be published online. The best student poster will receive an award at the end of the conference.

Students are encouraged to apply by submitting a short poster abstract (100 to 250 words) on an advanced networking topic. Applications should be sent to [tnc2012@terena.org](mailto:tnc2012@terena.org) with the subject "TNC2012 Student Poster" by **13 April 2012**.

<sup>1</sup>payable only on-site

## ACCOMMODATION

**You can make your hotel bookings on-line through our website. Our local conference organiser, Congress Reykjavík will handle the booking.**

Reykjavik is a popular tourist destination and the end of May is high season, so we recommend that you make your hotel booking early. The selected conference hotels are in the centre of Reykjavik and the conference venue is located close to the city centre. The hotels are all easy to access from the airport.

For your convenience, a list of these hotels with descriptions and online booking pages can be found at: [tnc2012.terena.org/web/venue/hotels](http://tnc2012.terena.org/web/venue/hotels)

All questions and correspondence about hotel bookings should be sent to the local conference organiser, Congress Reykjavík. They will be able to provide you with all the necessary information and assist you with your hotel bookings.

Contact person: Ingibjörg Hjálmsfríðardóttir <[imma@congress.is](mailto:imma@congress.is)>.

### Visa requirements

Those requiring supporting documentation in order to obtain a visa should contact Congress Reykjavík directly <[imma@congress.is](mailto:imma@congress.is)>. Please be aware that a letter of invitation does not imply any financial support. You will still be subject to the normal registration fee. Registration for the conference is necessary. The payment and accommodation booking must be made prior to the request for an invitation letter.

Details of visa requirements for entry into Iceland can be found on the website of the Directorate of Immigration in Iceland: [utl.is](http://utl.is)

## CONFERENCE VENUE

Háskólabíó - University Cinema and Cultural Centre will accommodate the TNC2012.

The University Cinema complex is fully equipped for conferences and meetings, with facilities for video, computer or slide projection and wireless Internet connections.

It is just a ten- to fifteen-minute walk from the city centre. The University Cinema is easily accessible by public transport. More information can be found on their website: [haskolabio.is](http://haskolabio.is)

The 4-star Radisson Blu Saga Hotel is just across the road from the Háskólabíó and most of the locations of the social events and all the recommended hotels are in the city centre.

Address and contact information for the conference venue:

### Háskólabíó

v/ Hagatorg

107 Reykjavík,

ICELAND

[haskolabio.is](http://haskolabio.is)



## SOCIAL EVENTS

### **Speakers' reception** (by invitation)

Sunday, 20 May, 20:00 – 21:30

Reykjavík City Hall, Tjarnargata 11, 101 Reykjavík

The Speakers' reception will take place at the Reykjavik City Hall. It is an impressive building on the northern shore of Lake Tjornin. Stark and modern, it is the neural centre of Reykjavik, connecting nature, water and bird life to the centre of town. Opened in 1992, it accommodates the offices of the Mayor and executive officials of Reykjavik.

Tasty finger-food and refreshing drinks will be served during the evening. This is a perfect opportunity to meet former colleagues and to make new contacts.

### **Opening reception**

Monday, 21 May, 20:00 – 21:30

Viking Village, Strandgata 55, 220 Hafnarfjörður

All participants and registered accompanying guests are welcome at the Opening reception, which will take place in the Viking Village in Hafnarfjörður.

The reception will be a true Viking experience with food, drinks and service in Viking style! The venue is about twenty minutes' drive from the conference venue and transport will be provided.

### **Gala evening**

Wednesday, 23 May, 20:00 – 21:30

Harpa, Austurstræti 17, Reykjavík

Situated in the old harbour, between Reykjavík city centre and the North Atlantic, the new Harpa Concert and Conference Centre stands out as a unique landmark, in continuous interplay with its surroundings. The design was influenced by Iceland's exceptional and dramatic natural beauty. Situated on the boundary between land and sea, the building is a gleaming sculpture reflecting both the sky and the harbour, as well as the vibrant life of the city. The renowned visual artist, Olafur Eliasson, designed the glass facade, which covers the entire building. The architects of the building were Henning Larsen Architects of Copenhagen, Denmark.

Conference participants and registered accompanying guests are welcome and tickets for additional guests will be on sale at the conference registration desk.

## EXHIBITIONS

The conference will include an exhibition area where conference sponsors and various projects will have the opportunity to display their latest products and services. Companies interested in exhibiting at the conference should contact Gyöngyi Horváth

[<horvath@terena.org>](mailto:horvath@terena.org) for further information.

## CALL FOR POSTERS

In past years, many TNC participants have created high-quality poster presentations. An effective poster presentation should summarise your work with graphs and images to tell the story and should use text sparingly. Presenting a poster at the TNC will serve as an excellent advertisement for your work, and can act as a great conversation starter with other TNC participants.

There will be a poster exhibition at the conference venue. The Call for Posters begins on 20 February 2012 and poster proposals are due on 13 April. Details are provided on the conference website:

[tnc2012.terena.org/participate](http://tnc2012.terena.org/participate)

## DEMONSTRATIONS

Demonstrations of cutting-edge technologies will take place in the Demo room of the conference venue. Places are still available. Applications for demonstrations should be sent to Gyöngyi Horváth <[horvath@terena.org](mailto:horvath@terena.org)>.

# CONTACTS

## GENERAL INFORMATION

**TERENA Secretariat**

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1017 AW Amsterdam

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F: +31(0)20 530 44 99

E: [tnc2012@terena.org](mailto:tnc2012@terena.org)

[tnc2012.terena.org](http://tnc2012.terena.org)

**RHnet**

Dunhagi 5, 107 Reykjavík

ICELAND

T: +354 525 4300

E: [tnc2012@rhnet.is](mailto:tnc2012@rhnet.is)

[www.rhnet.is](http://www.rhnet.is)

## HOTEL INFORMATION & RESERVATIONS

**Congress Reykjavík**

Engjateigur 5

105 Reykjavík

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T: +354 585 3904

F: +354 585 3901

[www.congress.is](http://www.congress.is)

# CREDITS

## Local Host

Jón Ingi Einarsson	RHNET	Iceland
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## Conference Organisation

Miroslav Milinović	TERENA VP Conferences	Croatia
Karel Vietsch	TERENA	
Bert van Pinxteren	TERENA	
Gyöngyi Horváth	TERENA	
Ymir Vigfusson	University of Reykjavik	Iceland

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## Local Support

Lára B. Pétursdóttir	Congress Reykjavik	Iceland
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## TNC2012 Programme Committee

### The Programme Committee Chair

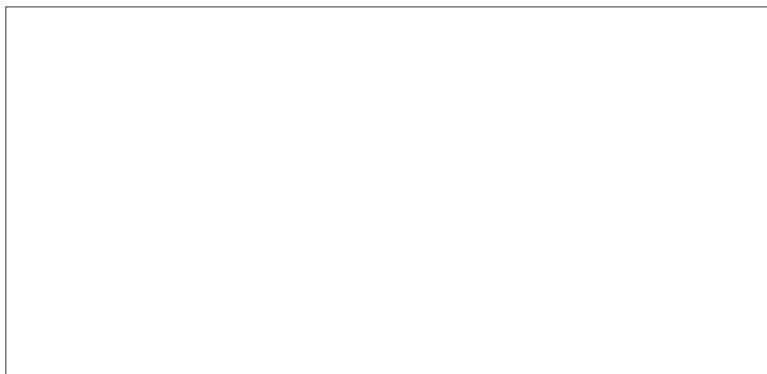
David Kelsey	STFC	United Kingdom
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### Members

Bartosz Belter	PSNC	Poland
John Chevers	DANTE	
Lionel Furette		Belgium
Ana Preston Hunsinger	Internet2	USA
Bartłomiej Idzikowski	PSNC	Poland
Leif Johansson	SUNET	Sweden
Zenon Mousmoulas	GRNET	Greece
Jiří Navrátil	CESNET	Czech Republic
Brook Schofield	TERENA	
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Ymir Vigfusson	University of Reykjavik	Iceland
Stefan Winter	RESTENA	Luxembourg



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