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//////////////////// KIWI ADVANCED RESEARCH AND EDUCATION NETWORK \\
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Left to right: Scott Houston, New Zealand Supercomputer Centre; Alan Freeth, CEO TelstraClear; Donald Clark, CEO REANNZ; Rob Johnston, General Manager Business Development and Information Services GNS, at the launch event for KAREN 31 August 2006.

Welcome to our members, current and future, and our users. We have reached an exciting and important phase in KAREN's life cycle; we have launched the network, and New Zealand's research and education community now has the essential underpinning for 21st century discovery, learning and innovation.

It has taken significant effort by many people and organisations to get us here; too many to mention in this short introduction. Our challenge now is that of 'hearts and minds';

KAREN must become an essential piece of infrastructure for an innovative New Zealand.

We will only achieve this when we've grown our community to the extent that everyone involved in the research, education and innovation sectors understands that the connectivity provided by KAREN is critical for their success.

We make no apologies for the fact that we will be shamelessly asking you all to help spread the word.

Our commitment to you is to be an open, responsive and supportive KAREN Team.

Donald Clark
Chief Executive
REANNZ

Connecting KAREN Communities

Almost all the initial members of the KAREN community are signed up, and at various stages of getting physically connected. Each member has developed their own approach to building up use of the network and awareness across their organisations of directions within e-research and potential applications for KAREN. These are early days and there is plenty of collective learning to be done.

Immediate use of KAREN will be to access or transfer large data sets quickly. In this event there will no doubt be a national sigh of relief as hard-drives get taken out of suitcases or courier vans around the country and researchers, educators and others use a keyboard to transmit or access the data they need to do their work.

While there are natural thematic groups of inter and intra-disciplinary groups with a common research interest for example, astronomy or bioinformatics, it is important that there is wider acknowledgement of potential for network use. So in parallel with the development of applications by those who readily understand advanced networking there is a need to socialise the language of the technology and to create new social networks.

The KAREN team is working on a major event and a series of master classes around the first week of July 2007 to address some of these issues: "Approaches to building communities for collaboration". The central event is proposed around two themes:

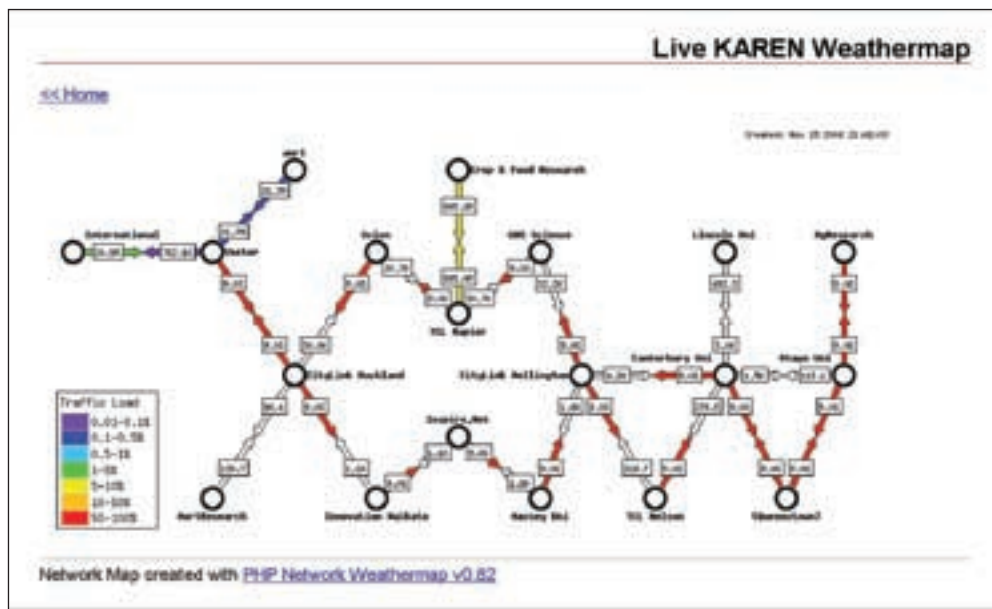
- HUMAN DIMENSION: Understanding the needs of researchers and their disciplines and providing options and examples, and
- TECHNICAL APPLICATIONS for research and education networks



Contact Julie Watson,
Communities Manager
julie.watson@reannz.co.nz

It is important that the KAREN Technical Team has connectivity data sheets from all signed up members with technical information specific to their sites. This way the team will be able to help more readily with technical advice. This information is on our website at <http://www.karen.net.nz/connecting-to-karen>

KAREN Weathermap



The KAREN weathermap has been built by the WAND group and is based on SNMP metrics from the core network. The weathermap gives visibility of current loading of the network e.g. how much data is transiting the network. Check it out at <http://erg.wand.net.nz/weathermap/weathermap.php>.

The KAREN team will be looking at enhancements to the existing weathermap, so if you have any ideas about this, please email: techinfo@reannz.co.nz.

Capability Building

The first two rounds of the Capability Build Fund (CBF) have closed. These were the 2006 Working Group and Development Fund and the Event Support and Travel Fund.

The CBF is designed to encourage effective use of KAREN through developing a culture among educators and researchers that includes elements of awareness and ability in advanced networking techniques. This will also involve new collaborations across disciplines and organisations and will be fostered within a community ethos of sharing knowledge and technology development.

The fund is available to members as leads for these applications. However this does allow non-members to partner with members. Remembering that a significant goal of the fund is to enhance collaboration and share knowledge. The CBF Advisory Panel will be reviewing applications received in the first round in order to refine guidelines and criteria.

The next rounds will be available in February/March 2007. The Royal Society administers the fund and more information can be found at <http://www.rsanz.org/funding/karen/>

Inside KAREN Communities



Above: Tony McGregor.

A number of KAREN members have either appointed or nominated KAREN champions over and above their dedicated technical contacts. In this first issue of *hyphen* two different approaches are profiled.

Tony McGregor, Associate Professor of Computer Science, University of Waikato, has as part of his role the responsibility for promoting KAREN across departments. Tony also teaches Computer Networks and Operating Systems. His research interests are in Computer Networks, especially Computer Network Measurement. He leads the Waikato Network Research Group (WAND).

Julie Watson asks him how he has approached being a KAREN champion.

JW: What approach have you taken to raising awareness of KAREN across your campus?

TMcG: KAREN has certainly increased my workload especially right now as I put the finishing touches on a Capability Build application (laughs). But generally I have been visiting researchers with high data and processing needs talking about the network.

JW: So, what is the awareness level?

TMcG: Actually there is a lot of interest, it's clear that a good number of researchers will benefit from KAREN. It's really interesting to see the variety of projects. You've got people like John Perrone from Psychology, who is studying human visual perception of motion and David Hamilton in Biological Sciences who's modeling water quality in New Zealand's lakes. Then there's the real techno-geeks, like me (studying computer network performance). The thing we all have in common is the need to exchange large data sets with national and international colleges. Almost everyone I talk to has heard of KAREN which is great, but very few understand what it will and won't do for them. My role has been to clarify that for people.

JW: Other KAREN reps are reporting a similar level of awareness.

TMcG: I think it is great that other universities and CRIs have appointed people to promote KAREN across their organisations. It would be really useful for us to meet together and discuss the issues we each have and decide on strategies to help.

JW: Ultimately people won't even need to know that KAREN is enabling them with their research it will just be part of the fabric that underpins the applications they use.

TMcG: Actually, that is an issue that I need to find a way around, because commodity Internet traffic is so expensive it will be important for researchers to know whether their traffic is going across KAREN. Costs could accidentally be incurred by departments which would be of huge concern to individual researchers. I think we'd need to deploy some KAREN only addresses to help allow researchers to guarantee that they are using only KAREN bandwidth. There's a need for this for both incoming traffic and for offering high volume services to other researchers.

What is KAREN?

KAREN is the Kiwi Advanced Research and Education Network.

KAREN is a high-performance network that connects research organisations around New Zealand. Data can be transferred through KAREN at up to 10 gigabits a second – 10,000 times faster than a standard broadband connection.

KAREN is just one of more than 40 national advanced research and education networks around the world. KAREN links to other similar networks in Australia and the United States, and through them to Asia and Europe.

How can I get on to KAREN?

For research and teaching purposes, access to KAREN will be mediated by a range of software applications. 'Getting onto KAREN' requires finding an existing application or building new ones that support the types of work you want to do.

Some applications will be available soon, whilst others may take some time to develop. Applications include:

- The Access Grid – high-quality group audio – and video conferencing with additional tools for collaboration; a virtual room for seminars, workshops and meetings with colleagues from other NZ universities and overseas.
- Portals for grid computing – easy-to-use interfaces for accessing networks of computers for large-scale data processing.
- Virtual Research Environments – web-based portals that provide access to grid computing, as well as data sets and communication tools for groups of researchers.

Will I be able to access KAREN on my desktop?

KAREN is the infrastructure that enables e-research and will be invisible to end users.

Thanks to Sam Searle, E-Research Capability Coordinator – who is developing a Victoria University website with FAQs.

Profile: Sam Searle, E-Research Development Coordinator Victoria University



Above: Sam Searle.

- faculties and schools
- research institutes and centres, and
- individual researchers

She is also looking forward to working with the KAREN team and sharing experiences with people from other universities, both in NZ and internationally.

'I definitely see this job as an extension of my previous work as a librarian,' says Sam. 'Librarianship is about making sure that people have access to the information they need to help them towards their professional and personal goals. This is no different. KAREN should enable new and innovative research that will contribute to NZ's economic and social development; but it's about more than the technology, it's about what the people are trying to achieve.'

Sam Searle has been appointed to the role KAREN Capability Coordinator, based in School of Maths, Statistics and Computer Science and is working with John Hine, Professor of Computer Science and Head of the School of Maths, Statistics and Computer Science.

Sam's role is to be an advocate for KAREN and the many opportunities it offers for VUW researchers to conduct new kinds of research, and to collaborate and communicate better with colleagues across NZ and internationally.

Sam says, 'One of the exciting bits of the job is that I will get to work across the entire university.' KAREN will impact on many groups in the university including:

- senior management, particularly in the areas of research and IT
- central service units - the Research Office and ITS, but also the units responsible for staff development and the library, because of connections that need to be made between KAREN and other work in the "e-research space" e.g. institutional repositories, data archiving and curation etc.

Sam says: 'I believe that enthusiastic, informed and skilled people at all the member organisations are what will make KAREN successful!'

Sam has spent the last 4 to 5 years as Digital Library Projects Leader at the National Library of New Zealand. She project managed a number of initiatives in the areas of distributed digital collections, digitisation and optical character recognition including Matapihi (www.matapihi.org.nz), Papers Past (paperspast.natlib.govt.nz), Te Ao Hou (teahou.natlib.govt.nz) and the digitisation of Transactions and Proceedings of the Royal Society of New Zealand 1868-1961 (rsnz.natlib.govt.nz).

Events 2007

JANUARY

22 -26 January
23rd APAN Meeting, Manilla

26 January - 2 February
New Zealand Network Operators' Group Conference, Palmerston North

FEBRUARY

(tbc)
Security and Firewalling hands on workshop

11 - 15 February
Interim meetings of the GLIF Control Plane and Tech Working Groups, Internetz/ESCC Joint Techs Workshop, Minneapolis, USA.

21 February - 2 March
APRICOT 2007 will be held in Bali, Indonesia, hosted by APJII, the Indonesian Internet Service Provider Association

MARCH

(tbc)
KAREN Champions discussion group

(tbc)
KAREN in ACTION: demonstration video conference using Access GRIDs

4 -9 March
The Second International Workshop on IPv6 Today - Technology and Deployment IPv6TD 2007 Guadeloupe, French Caribbean

MAY

21 - 24 May
TERENA Networking Conference 2007 will be hosted by UNI•C, the Danish IT Centre for Education and Research, Copenhagen

JULY

KAREN event and workshops, week beginning 2 July "Approaches to building communities for collaboration"