APNIC

Apster

Apster is the quarterly newsletter for APNIC members and the Internet community.

Issue 13 February 2005

APNIC - Addressing the challenge of responsible Internet resource distribution in the Asia Pacific region

www.apnic.net

19th APNIC Open Policy Meeting

The 19th APNIC Open Policy Meeting takes place at the Kyoto International Conference Centre from 21-25 February 2005, in conjunction with APRICOT 2005. The meeting is an opportunity for the Internet community to come together and discuss Internet resource policy in the Asia Pacific region, attend tutorials, and learn about new developments relating to the Internet.

The meeting will include two days of tutorials, two days of Special Interest Group (SIG) meetings, and the APNIC Member Meeting, as well as a range of Birds of a Feather (BOF) sessions and social events.

Details of the programme and schedule are available at:

http://www.apnic.net/meetings/19/programme

Policy proposals

Two policy changes have been proposed and will be discussed at APNIC 19:

prop-026-v001	prop-027-v001
APNIC to publish address assignment statistics This is a proposal that the APNIC Secretariat collect and publish the number of assignments registered in APNIC Whois Database on a monthly basis, sorted by country and by address prefix (size). The full text of the proposal is available at: http://www.apnic.net/docs/policy/discussions/prop-026-v001.txt	**The second phase of Large Space IPv4 Trial Usage Program for Future IPv6 Deployment** This is a proposal to start the second phase of the ongoing trial program operated by the IPv6 Promotion Council of Japan for future IPv6 deployment by utilising historically allocated IPv4 space. The full text of the proposal is available at: http://www.apnic.net/docs/policy/discussions/prop-027-v001.txt

For more information on these and past proposals, see: http://www.apnic.net/docs/policy/proposals

APNIC tutorials

A key part of every APNIC meeting is the tutorial programme. At APNIC 19, this programme includes several new APNIC tutorials, which examine a range of issues of interest to APNIC members.

Tutorials at APNIC 19 include:

- Dynamics of the policy development process
- An update on spam prevention
- APNIC Certification Authority overview
- ISP infrastructure security design and implementation strategy

For more information on these tutorials and session times, see:

http://www.apnic.net/meetings/19/programme/tutorials/

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NIDA

Since the early 90s, Internet resource management in the Republic of Korea has been overseen by the Korea Network Information Centre, a National Internet Registry responsible for both the .kr domain and for IP addressing within Korea. Significant organisational changes in recent months, however, have meant that, as of 30 July 2004, these responsibilities have been taken over by a new body, the National Internet Development Agency, or NIDA.

▲ Dr. Song

President of NIDA, Dr Kwan-ho Song, recently explained the role of the new organisation. "NIDA will act as a hub organisation to prepare Next Generation Internet, and KRNIC will remain as one department of NIDA, still managing the .kr domain and local IP address resources. The mission of NIDA is to promote the local Internet industry as the main body in building u-Korea."

u-Korea is an initiative of the Korean government, and part of an ongoing project to foster the integration of Korean government and businesses with cutting edge communication technologies such as IPv6, RFID, and third and fourth-generation mobile telephony. In this way, the government aims to secure Korea's position as a leader of information and communications technologies in the region.

"The Internet is increasingly becoming the central medium responsible for the creation of new values and innovation across the spectrum of the culture, society, politics, economics, and art," said Dr Song. "Now, it represents one of the world's most important public commodities, which profoundly impacts our daily lives as well as all industrial sectors."

"NIDA recognised early on the extent to which the Internet would result in a paradigm shift, becoming the foundation for national economic development. NIDA is establishing itself as a centre for Internet development in Korea, working to realise a long-term vision for the future of Korea that will secure our nation's position as a hub of North East Asia."

The major tasks undertaken by NIDA include:

- Management of the .kr domain and IP address resources;
- Development of Next Generation Internet resources (ENUM, IPv6, RFID-MDS etc) with active participation in international Internet related organisations;
- Development of policy for active Internet use;
- Publication of relevant Internet statistics;
- Dispute resolution on Internet address resources;
- Study on Internet governance.

At this point, NIDA provides resource services to 79 ISPs, and is working with seven companies responsible for .kr domain registration and three companies supporting mobile phone-based Internet services (WINC). NIDA has also fostered close relationships with many IT and Internet related research centres, academic institutes, and the Ministry of Information and Communication. These relationships are key to NIDA's plans for future innovation and expansion in the Korean Internet industry.

"We are [currently conducting] studies on MDS [Multiplex Directory System, an integrated RFID code search system] to provide a stable basis for an era of ubiquitous networks," reports Dr Song, "and we plan to give mobile addressing (WINC) a boost. Ever since NIDA was established, we have lain our emphasis on improving existing services rather than developing new ones."

For more information on NIDA and KRNIC, visit:

http://www.nida.or.kr

Chris Buckridge

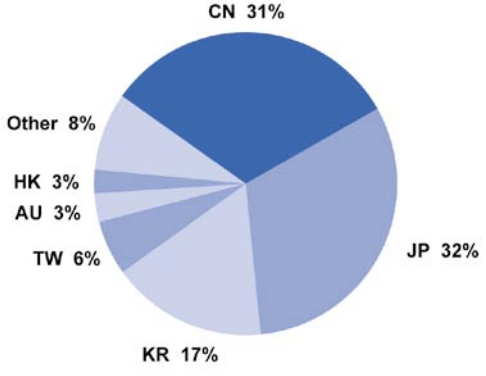
Next Generation Internet in China

The previous issue of *Apster* reported on the status of IP network addressing in China. Since then, CERNET2 has been launched as the first backbone of the Next Generation Network in China.

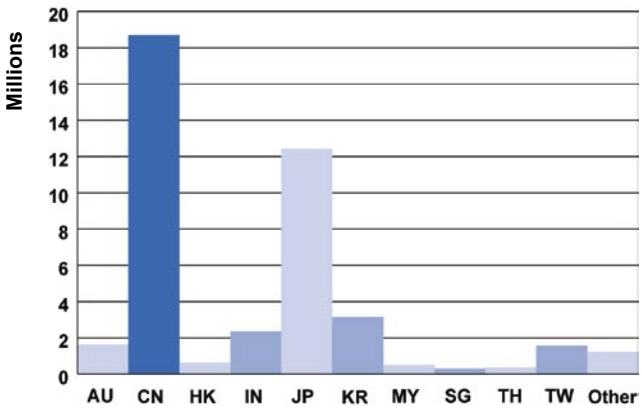
China Daily reports that the IPv6-based CERNET2 is "the biggest next-generation Internet network in operation in the world and connects 25 universities in 20 cities" and is expected to connect up to 100 universities in the near future.

APNIC's allocation statistics also indicate very high levels of IPv4 network activity in China recently. As the following charts show, in the past year, China has received considerably more IPv4 address space than any other economy in the Asia Pacific region, and is likely to soon have the greatest total IPv4 holding in the region.

Total IPv4 held, by economy



IPv4 addresses allocated in 2004



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IX SIG expanded

The IX SIG, which examines issues surrounding Internet exchanges, has been expanded at APNIC 19 to span two meeting sessions, rather than one. This extra time reflects the growing level of interest in this SIG, with presenters scheduled to discuss IXes in Bangladesh, Vietnam, Japan, Taiwan, and Europe, as well as various operational issues.

The IX SIG is one of the newer Special Interest Groups in APNIC, and held its first meeting at APNIC 13 in March 2002. Since that time, the number of IXes around the region has increased dramatically, as has interest in, and attendance of, the APNIC IX SIG.

For programme information on all APNIC 19 SIG meetings, see:

http://www.apnic.net/meetings/19/programme

APNIC 19 Sponsors

Day 3	JPNIC
Day 5	TWNIC, CNNIC 中国互联网络信息中心

◀ Japanese garden at the Kyoto International Conference Hall.

DNSSEC Summit: Road map for DNSSEC deployment

In *Apster* 12, Olaf Kolkman, of RIPE NCC and Chair of the IETF DNSEXT working group, reported on the development of Domain Name System Security Extensions (DNSSEC). His article explained the need for securing DNS and reviewed the work and support that will be required to fully deploy DNSSEC, which will provide cryptographic support for DNS data integrity and authenticity.

During APRICOT, Kolkman, Internet security expert Steve Crocker, and others, will participate in a DNSSEC Summit. The summit, to be held on 21 February in Kyoto, will feature a mixture of short presentations and extended discussions to examine the current DNSSEC architecture and discuss key deployment issues. Ultimately, the summit is hoped to build a deployment road map and identify difficulties that have to be overcome for wide implementation of DNSSEC.

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Opinion: ICANN, the ITU, and Internet governance

This is the second and final part of Geoff Huston's perspective on the current international discussions on Internet governance. This is an edited version of an *ISP Column* article originally published online in November 2004 at http://www.potaroo.net/ispcolumn. Part 1 was published in *Apster* in December 2004.

In my previous article, I looked at ICANN, its brief history, and its achievements. In this article I'd like to cast the net a bit wider and look at the concept of 'Internet governance' in the context of the International Telecommunication Union (ITU) and the World Summit on the Information Society (WSIS).

One of ICANN's major achievements has been the restructuring of the generic top-level domain name business, where it has been able to replace a single monopoly operator with a system of registry operators and registrars. The registry operators are constrained not by regulatory fiat but instead are under the terms of formal contracts with ICANN, so that regulatory constraint is replaced by contractual obligation. Registrars operate under a lighter set of strictures, and the major constraining factor is the competitive market for registrar services. In general, the outcomes of these restructuring measures have been positive. The price to consumers has fallen, and, to some extent, both the market has stabilised and the privileged monopoly position enjoyed by a single operator has been diluted.

This has not happened easily and it could be argued that the price paid for ICANN to achieve this positive outcome has been very high.

ICANN – A critical perspective

Let's look at this from the perspective of the various criticisms made of ICANN and the current situation. The perception of an advantaged position of the US administration and of US-based enterprises in the global Internet has been widely promulgated. It is often portrayed that there is no way to alter this somewhat disturbing picture of ICANN since it offers no viable mechanisms for other national or regional interests at a government level. While other aspects of international activity fall under various political or trading frameworks, and national and regional interests and positions can be collectively considered and negotiated, critics of ICANN point out that the message ICANN sends to the rest of the world is that the US is withholding the Internet from conventional international governance processes. Various views interpret the US administration's use of ICANN as a delaying technique to obtain time to further strengthen the position of entrenched and already well-established US-based enterprises across a lucrative global Internet market.

Such a critical perspective also points to ICANN's tenuous lines of authority, its lack of performance in many aspects of the domain name enterprise, its seeming obsession with the registrar sector to the apparent exclusion of any other activity, its burgeoning costs, and its lack of acceptance, particularly as it relates to the acceptance of ICANN by the various country code DNS administrators, to name but a few factors.

Accompanying this strident criticism is the argument that the Internet does not actually represent a viable challenge to existing mechanisms for coordinating international activity. At both a national and international level, the Internet does not require novel and untested regulatory mechanisms as a means of expressing public interest and public policies. From this perspective, there is neither the demonstrated need, nor any appropriate level of international support at a government level to sustain the argument that a private sector, non-profit corporation is the best – or even the only – viable model of coordination of activity. If 'Internet governance' is the question, the line of argument goes, the model upon which ICANN is based is definitely not the best answer we can devise. This very critical line of reasoning has become particularly prominent in the World Summit for the Information Society (WSIS) process, and lies behind much of the continual fascination with the topic of 'Internet governance' in WSIS meetings.

ICANN – A positive perspective

Not surprisingly, there is another perspective to this. The US administration see their objective as one that establishes a model of international collaboration that more appropriately reflects a deregulated global communications industry, where the disciplines of open competition between service providers act to prevent market distortions. From this perspective, ICANN is the vanguard of an approach that coordinates international activity by establishing open free trade structures and populating the space with openly competitive providers.

The US administration and ICANN continue to adhere to a timetable of transition in which the US government will acquit itself of its role as holder of the authority in the DNS root space, unallocated IP address space, and the intellectual property and authority of IETF protocol parameter registries in favour of ICANN. In its place, it sees an open competitive environment that constrains individual players from various forms of market distortion and aberrant behaviours, backed up by a system of formal contractual obligations between industry players and ICANN.

At this stage, ICANN can correctly claim a role as a private sector, non-profit corporation with technical management responsibilities for the Internet's domain name and address system.

The ITU

This is an agenda for ICANN not without considerable risk, as there remains a strong core of opinion at government levels that the intergovernmental form of cooperation and coordination via international treaty instruments is applicable to the Internet, and that there remains a viable, if not central, role for the ITU in the Internet.

The ITU is certainly one of the more venerable institutions in the communications sector. It can trace its origins to May 1865, when 20 founding national members signed the first International Telegraph Convention, and the International Telegraph Union was established to facilitate subsequent amendments to this initial agreement. In 1885, the ITU drafted international legislation governing telephony. With the invention in 1896 of wireless telegraphy, the International Radiotelegraph Convention adopted similar coordinating measures. In 1932, the Union combined the International Telegraph Convention of 1865 and the International Radiotelegraph Convention of 1906 to form the International Telecommunication Convention. The name of the body was changed to International Telecommunication Union to properly reflect the full scope of the Union's responsibilities, which by this time covered all forms of wireline and wireless communication.

In 1947, the ITU, under an agreement with the newly created United Nations, became an Agency of the United Nations, with responsibilities in international telephony, telegraphy and radio communications. Over the next four decades, the ITU oversaw a system of international interconnection of telephony and data systems that became an industry in and of itself. The concepts of half circuits, bilateral interconnection, and call accounting-based financial settlements were all developed within ITU forums. The ITU assumed a role of facilitating what was asserted to be a balanced international environment where the costs of running

the system were apportioned according to the level of each international carrier's use of the system. Financial settlements were intended to ensure that revenue entering the system was shared fairly between the receiver of the call revenue and other carriers who played a role in providing the service.

In practice, these lofty goals were not achieved very efficiently, and international facilities were priced at levels that were considerably higher than the associated costs of provision. In attempting to redress the imbalances between large and small national carriers, the outcomes included collective action on the part of the national carriers that operated in ways not dissimilar to a cartel.

In 1992, the ITU was restructured into three Sectors, corresponding to its three main areas of activity, namely the standardisation of telecommunications technologies in the ITU-T, the coordination of radiocommunications in the ITU-R, and telecommunication development in the ITU-D. In 1994, the ITU established the World Telecommunication Policy Forum (WTPF), an ad hoc meeting which encouraged the exchange of ideas and information on emerging policy issues arising from the changing telecommunication environment. The first WTPF was held in 1996 on the theme of global mobile personal communications by satellite, and the second in 1998, on trade in telecommunication services.

The ITU was heavily criticised over the ponderous amount of time taken to generate telecommunications standards, the nature of the process used in developing these standards in a closed set of forums, the marginal relevance of these standards, and, the final indignity, that the ITU charges for paper and electronic copies of these standards. As some critics pointed out, perhaps harshly, this was not just a case of paperware about vapourware, it was a case of very expensive paperware about vapourware!

More recently, the ITU has been focused on strengthening the participation of the private sector in the work of the Union, as well as streamlining the ITU's processes to reduce the level of delay and the amount of process overhead in standardising technology and operational practices. The ITU sponsored the establishment of the World Summit on the Information Society (WSIS), and has been attempting to position itself more centrally in the process of further evolution of the Internet.

The ITU and the Internet

There is no doubt that the ITU, like many parts of the established telecommunications industry, was caught by surprise by the rapid uptake of the Internet across the world. The ITU's processes were ponderous, and were well suited to making minimal changes in a mature and well-understood environment. The ITU was left looking unresponsive and indecisive due to the coupling of progressive deregulation of national telecommunications markets, emerging regional and global private telecommunications industry players, and a comprehensive redefinition of the market through the introduction of the Internet.

However, a number of national regimes saw the new Internet industry as one which strongly favoured a small number of enterprises – predominately those located in the US and the associated national interests – and disenfranchised other players and their national economies. International attention at a national and regional level was focused on the new form of Internet interconnection and financial settlement, which invariably placed US Internet service providers in a heavily advantaged position. The carefully crafted telephone regime, which attempted to share the costs of international infrastructure and balance call revenues between the originating and terminating providers, appeared to have been discarded. In its place, there appeared to be a regime where non-US providers paid for international infrastructure and also paid the US provider for transit services. Attempts to raise the matter at regional intergovernmental meetings achieved little, and various efforts to take legal action in US courts also proved to be ineffective.

A number of national regimes saw the ITU as one of the few ways in which to successfully challenge the perception of over-arching dominance of the Internet by US national and commercial interests. The ITU has been responsive to these calls for greater international engagement in the Internet; although one suspects that there is still a considerable level of impatience that the perception of overarching control by US national interests to the exclusion of all others remains firmly in place. The impatience also extends to the observation that the ITU has been unable, so far, to challenge this in any meaningful way.

For those interests who wanted the ITU to become engaged in this matter, hope has now been passed to the WSIS process and the related study into Internet governance issues. This is seen as a way of moving control of the Internet to a more conventional international process that dismantles the current position of global taxation that US national interests have imposed on the rest of the world's population in the adoption of Internet-based services. For those who feel the ITU remains an unreformed vehicle for imposing outdated regulations that reduce innovation and progress in telecommunications, the WSIS process is yet another venue to parade the stark contrast between the impressive track record of a deregulated market-driven approach to coordinating telecommunications services, as seen with the Internet, and the ineffectual outcomes from the international public regulatory sector, driven by the intersection of national interests, and often expressed in national contexts through regulatory fiat.

ICANN and Internet governance

This debate over styles of international coordination and governance of the global communications enterprise is one that increasingly drags ICANN out from a rather limited technically-oriented agenda into a much larger sphere of international politics. It is a sphere in which ICANN is not well equipped to broaden its mission. Recently, ICANN has attempted to stress its position and its activities as a case of technical coordination in a limited domain. Meanwhile, it has carefully avoided the broader topic of Internet governance including any pretensions to assume an overarching role within it.

ICANN's focus is on achieving outcomes that promote innovation and enterprise. It balances the needs of Internet users against the needs and objectives of various industry sectors and various national agendas. ICANN has attempted to achieve this by attempting to bring all aspects of the debate into open view, attempting to assist the broad diversity of interests to recognise the greater common benefit of achieving some level of consensus with a shared vision, and then embarking on implementation.

To date, ICANN does not represent itself to be the source of an imposed solution to any particular issue. Rather, it sees itself as a forum where issues can be brought to light, stakeholders and interested parties identified, the topic debated in an open and transparent fashion, and solutions proposed that represent a consensus of the various parties involved. ICANN characterises itself as representing a process of so-called 'bottom-up' policy making, as distinct from the ITU-T process where interested parties are held at arms length, and solutions or recommendations reached at the international inter-government level are imposed as regulations at the national level.

ICANN, like many bold, innovative experiments in international coordination and the establishment of new world orders, strongly risks falling foul of an inherent conservatism in international politics, where the careful balancing of national interests is seen as a more critical objective than any actual outcomes that may be achieved. From this perspective, ICANN is critically reliant on the acceptance by all players of its legitimacy to operate in this space, and also critically reliant on acceptance of the proposition that these issues are best addressed in open forums of debate. This is a difficult task, and the limited set of outcomes that ICANN can point to as products of this process do not instil a high degree of confidence that this process is

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stable, scaleable, well founded, and sustaining. Right now, the proposition is not that ICANN represents an outstanding set of achievements. Rather, the track record of the alternative has failed in the past and nothing has changed to prevent it making similar flawed decisions in the future.

WSIS and Internet

The WSIS was envisaged in two phases. The first Summit was held in Geneva, 10-12 December 2003, where the foundations were laid by reaching agreement on a Declaration of Principles and a Plan of Action. The second phase will be held in Tunis, 16-18 November 2005, to implement the agenda leading up to achievable targets by 2015, and to agree on unfinished business, most importantly, the question of Internet governance and of financing mechanisms.

Irrespective of any particular political perspective, the universal observation is that the Internet has heralded a revolutionary change to the global communications enterprise. Markets for communications services are changing, the technology base is changing, the economic models of communication are changing, and the models of interaction at the provider level are changing. The challenge from the global public policy perspective is to create a framework that ensures that the benefits of this change, in both social and economic terms, are accessible to all, rather than to a subset of the world's population. It is within this broad framework that WSIS has been positioned.

The level of activity behind WSIS is relatively intense: the ITU has the lead role in organising the Summit, assisted by a UN Secretary-General appointed High-level Summit Organization Committee (HLSOC) comprising of Executive Heads of the FAO, IAEA, ICAO, ILO, IMO, ITU, UNCTAD, UNDP, UNEP, UNESCO, UNFPA, UNHCHR, UNHCR, UNIDO, UNU, UPU, WFP, WHO, WIPO, WMO, WTO, UN Regional Economic Commissions, and the World Bank. HLSOC also includes IADB, OECD, UNITAR and UNV as observers. The UN Secretary General appointed a Special Adviser to WSIS as his representative. An Executive Secretariat based at the ITU Headquarters in Geneva has been mandated to support the preparatory process and the Summits. Switzerland and Tunisia have also established Host Country Secretariats to facilitate the preparatory process of the Summits. A Bureau of the Preparatory Committee, composed of 32 governments representing the various regions of the UN System, guides the President of the PrepCom in the preparations of the Summit.

The task before WSIS is certainly as challenging as any in this environment, and the hope is that the alphabet soup of the previous paragraph includes sufficient resources so as to engage in the agenda in a meaningful way.

Internet governance

The underlying issue is the progressive change in the role of communications infrastructure from a public sector to a private sector activity. We have become increasingly reliant on private sector investment and private enterprise to support the public communications enterprise. But is this the appropriate model for the entire world, or even any part of the world? As many recently privatised industries could confirm, private sector activity has entirely different investment motivations and service objectives. If an activity requires long-term investment in infrastructure with low returns, then private sector activity tends to sweat the existing infrastructure base without making adequate longer-term investments for replenishment. Private activity also tends to concentrate service delivery to the most lucrative sectors of the market, and, if possible, will deliberately avoid establishing services in areas that are less financially attractive. The task of structural cross-subsidisation that makes equal access possible is not seen as a private enterprise function. Additionally, aspects of communications, such as universal service obligations and equity of access, are seen as public regulatory functions rather than natural market outcomes of a deregulated industry.

The Internet today is anything but a level and balanced environment. There are concentrations of investment capability, technical knowledge and logistical capability, intellectual wealth, power, and influence. The appropriately lofty goal of the WSIS endeavour is to create from this current diverse environment some form of structural cross-subsidisation that extends the basic means of access to all. There is also the more focused investigation of 'Internet governance' and the agenda of establishing to what extent the perception of the advantaged position of the US in all this can be balanced by measures that allow other national economies to invest in this space on terms and conditions that do not involve a continuing flow of money and a ceding of power to US-based interests.

As the WSIS documentation points out:

- Building the foundations for an Information Society is a complex task. The digital revolution is already impacting the world in deeply intrinsic ways, perhaps more profoundly than even the industrial revolution itself. Yet, while the digital revolution has extended the frontiers of the global village, the vast majority of the world remains unhooked from this unfolding phenomenon. This new dynamic requires global discussion, and the first phase of the Summit held in Geneva in December 2003 laid the foundations of the Information Society by agreeing to a Declaration of Principles and a concrete Plan of Action.
- The second phase will review the implementation of the Action Plan and will set new (and more detailed) targets for the period 2005-2015. It will also deal with the important unfinished business of the first phase, e.g. the governance of the Internet and the question of financing mechanisms. [1]

Looking forward

One view of this process is that this is a negotiation of national roles of influence and power over the coming century or more, and that this process requires some considerable care and attention at an international level.

This topic places a model of deregulated activity, with its market-based disciplines, into direct contrast with a more traditional model that balances various national interests through regulatory measures undertaken within each national regime. The supporters of a deregulated approach argue that the Internet is a child of the progressive position of deregulation of communications markets in many national regimes, and it is the consequent competitive market that has led to the rapid spread of the Internet and the consequent improvements in the efficiency and effectiveness of national and international communications systems. Supporters state that none of these outcomes would have been achievable in a regulated regime where innovation and competition for the consumer are not possible.

The opposing view argues that the introduction of the Internet has changed nothing. The international regime remains one where various national interests compete, and that without some form of regulatory control, there would be inevitable market distortions where various national interests would attempt to create an advantaged position in the international domain. Public communications is a public sector activity, and, ultimately, control rests within national regulatory regimes. Internationally, those national interests must be balanced. From this perspective, the ITU is the venue for this communications sector activity, and it is to the ITU that national interests look to redress distortions where one national entity or one region holds an artificially privileged position with respect to international communications.

It is unlikely that James Watt would have looked at the governor he had invented for the steam engine and foreseen the fundamental way that the ensuing industrial revolution would change the lives of every human on the planet. His was a simple problem of technology.

At its outset, the Internet was also a simple problem of technology. Today, however, it is no longer just a question of technology. It is also a more fundamental question of entering a process of social change, as we embrace a world of information, where economic forces appear to be related to the capability of acquiring and exploiting information.

References

[1] Tunis SC36 Open Forum On E-Learning Proposal Outline. 2004.

http://mrg.jtc1sc36.org/doc/SC36_RG1_N0025.pdf

About the WGIG

The role and functions of the WGIG are explained by one of its members, Vittorio Bertola.

The Working Group on Internet Governance (WGIG) is a group of experts that was chartered by the Plan of Action of the Geneva stage of the World Summit on Internet Governance (WSIS) with the following mission:

i. Develop a working definition of Internet governance;

ii. Identify the public policy issues that are relevant to Internet governance;

iii. Develop a common understanding of the respective roles and responsibilities of governments, existing international organisations, and other forums as well as the private sector and civil society from both developing and developed countries.

As such, the WGIG does not deal with policy, but only with the mechanisms through which policy is discussed and approved – which, however, are the key for a long term solution to many of the current problems.

WGIG members were appointed by the UN Secretary General, following consultations with stakeholders, but were chosen to form an inclusive group that would collectively have the necessary skills on the different issues. While composition is balanced in term of geography and stakeholders, there is no direct representation involved.

The WGIG is required to present an interim report to PrepCom-2, followed by a final report on 30 June, so that it can be discussed in PrepCom-3. Consequently, PrepCom-2 will not discuss or negotiate any issue pertaining to Internet governance, while these issues will be discussed and negotiated at PrepCom-3.

The interim report will be a collection of 'issue papers' that describe the issues that belong to the Internet Governance field (parts i. and ii. of the mission). The third part of the mission will be discussed from March 2005 onwards.

▲ Raúl Echeberría, Executive Director of LACNIC. He represents the RIR community on WGIG.

These issue papers are now being drafted by the group; a list of the issues was prepared by the Secretariat, and each issue was then taken by a WGIG member, volunteering to act as 'lead drafter'; first drafts were due by January 20, and are now under discussion by the whole group.

Current plans are to finalise the drafts by 31 January, so that they can then be commented by the public, either online or at the open consultations that will be held in Geneva on 15-16 February. The group will then meet the following two days to take comments into account and then release the final papers, which will form the interim report. This report will be presented to PrepCom-2 on 24 February.

The Secretariat is working to ensure that the consultations are webcast in English and French and it is expected that there will be options for remote input.

The WGIG will not take decisions, but rather make proposals to be then discussed and negotiated at PrepCom-3. Additional work would then need to follow to have these proposals approved by governments and reflected in the outcome of WSIS-II in Tunis.

More information is available on the WGIG website at:

http://www.wgig.org

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The actual DNSSEC specifications were approved by IESG in October 2004, thanks to the work of the DNS Extensions Working Group. While implementation and deployment are usually matters for vendors and network operators, DNSSEC is likely to require more focused coordination than some other protocols, due to the multiple 'chicken and egg problems' involved, such as:

- Not all zones will be signed at once, raising the question of which policies should be used by end systems use when looking up domain names crossing both signed and unsigned zones.
- Determining how end systems should evolve to make use of DNSSEC.
- Identifying the training and tools needed before DNSSEC can be deployed within a zone and what key management policies a zone should use.
- Developing procedures for both distributing the root key to end systems and changing the root key.
- Determining how the root zone should be signed and what changes are needed in the process for making changes to the root zone.

The DNSSEC Summit is being presented with the support of the US Department of Homeland Security, the U.S. National Institute of Standards and Technology, and ICANN and is free for any interested parties to attend. Developments arising from the summit will be reported in future issues of *Apster*.

Full details of the DNSSEC Summit are available on the APRICOT web site at:

http://www.2005.apricot.net/relatedmeeting.html

Asia Pacific discussions on Internet governance

IGOVAP mailing list

In mid-January 2005, the IGOVAP mailing list was established to seek the views of the Asia Pacific community on the major issues of Internet governance. By the end of the first week, more than 150 participants from 27 economies in the region had discussed a wide range of issues, including:

- IP address management (geographic vs provider addressing)
- Root DNS nameserver operations
- The role of ICANN and the ITU in Internet governance
- The high expense of Internet connectivity in the Pacific region
- Preservation and promotion of cultures on the Internet

The mailing list was established by the Asia-Pacific Development Information Program (APDIP) as part of their project, the Open Regional Dialogue on Internet Governance (ORDIG). The IGOVAP mailing list discussion will help direct ORDIG research in the future. In mid-February, an interim report on the discussion will be directly submitted as a contribution to the Second Meeting of the UN Working Group on Internet Governance to be held in Geneva.

To have your say on Internet governance in the Asia Pacific region, you can subscribe to the IGOVAP mailing list at:

http://igov.apdip.net/opening_discussion/subscribe/formmailer

Internet governance at APNIC 19

APNIC 19 will include an informal discussion session on Internet Governance on Tuesday, 22 February 2005. The session will be conducted by APDIP as part of the ORDIG project and is free to all APRICOT 2005 attendees. Offsite participants can have their say in the discussion via a Jabber chat room.

For more information about this session, see:

http://www.apnic.net/meetings/19/programme

IETF administrative support structure formed: Vacancy for Administrative Director

Until now, administration of the IETF has been carried out by helper organisations and the IETF has had no direct staff working only for the IETF and its interests. However, the IETF community has now decided to create an administrative support structure to be known as the Internet Administrative Support Activity (IASA).

IASA will formally be structured as a function of the Internet Society (ISOC), which is now seeking a suitably qualified person to take on the role of IASA Administrative Director. The Administrative Director will report to the IETF Administrative Oversight Committee and be accountable to the IETF.

ISOC is based in Reston, USA and Geneva, Switzerland, but the successful candidate will be able to telecommute from a home office or use ISOC facilities. Although the recruitment process has already commenced, interested candidates should consult the ISOC web site for information on how to apply.

Full details of the IASA Administrative Director position are available at:

http://www.isoc.org/isoc/general/careerrelatedmeeting.html

APNIC officially recognised by United Nations

In early February, APNIC received notice that the United Nations Economic and Social Council (ECOSOC) has approved its application for 'Special Consultative Status' to the council. This means that APNIC is now an official, UN-recognised Non Government Organisation, or NGO, and may designate official representatives to attend UN meetings and conferences.

The recognition is the product a two-year application process, and will allow APNIC to play a strong part, where necessary, in UN activities. It guarantees accreditation in meetings such as the current WSIS, and streamlines the process of registration and participation.

APNIC Director General Paul Wilson acknowledged the importance of this latest development. “With the WSIS, the United Nations has become a central forum for discussions on Internet governance, and this role is likely to continue. Our status as an accredited NGO shows that APNIC’s contribution has been recognised, and will help to ensure that the views of APNIC’s members and stakeholders are heard.”

More information on ECOSOC and the role of NGOs, see:

http://www.un.org/esa/coordination/ngo

Pan Asia grant winners announced: Next round closing soon

The Pan Asia ICT R&D grants programme is now a major source of funds for Internet-related R&D in the Asia Pacific region.

The Pan Asia ICT R&D grants programme, which is jointly sponsored by IDRC, APDIP, APNIC, ISOC, and Microsoft and managed by AMIC, is now a major source of funds for Internet-related research and development in this region. In the November 2004 round, US$300,000 was available for the successful projects.

The results of the latest round of funding in the PAN Asia ICT R&D grants programme have now been released. From the 82 proposals received, the grants committee selected 14 for funding. Competition for these grants remains high and the committee was pleased by the generally high quality and diversity of the applications.

The proposals covered a wide array of topics, sectors, and issues, including ICTs for information access, rural governance, policy, bio-diversity, development, information societies, health and education for women, knowledge management, e-readiness, e-learning, e-government, e-governance, e-commerce, rural connectivity, capacity building, and networking.

The 14 successful proposals selected in this round included projects to lower the cost of local Internet access in Bhutan; crop management technologies in China and the Philippines; telemedicine initiatives in Nepal, India, and Malaysia; and English-Nepali machine translation techniques. Of particular interest to many in the APNIC community is a project to measure and analyse F-root performance and impacts in Indonesia.

The full details of all successful proposals are available on the IDRC web site at:

http://web.idrc.ca/en/ev-11785-201-1-DO_TOPIC.html#nov2004

Next funding round now open

The next competition round for the Pan Asia ICT R&D grants programme closes on 15 March 2005.

This open theme competition welcomes proposals in the following areas:

- Research and development into innovative ICT applications, with a clear focus on practical and replicable approaches and techniques.
- Research on Internet infrastructure design, performance, management policy, and related topics.
- Development of practical solutions based on the application of proven and readily available Internet technologies with minimum basic research.
- Research on the outcomes and social impacts of specific ICT policies and interventions and application of Internet technologies.
- Research on policy matters affecting Internet networking in the Asia Pacific region, especially where linked to areas such as policy impacts, gender equity, social equity, sustainable communities, and technology diffusion/transfer and benefits to rural areas.
- Technology related issues such as broadband connectivity, 'last mile' innovation, mobile and wireless technologies for the developing world, and increasing the capacity or efficiency of existing network infrastructures.

Interested parties from the Asia Pacific region may apply for either of the following types of grants:

- Grants up to US$9,000 over 12 months.
- Grants up to US$30,000 over 24 months.

Applications submitted after the deadline will not be considered for this round, but may be considered in future rounds. Results will be made known by mid May 2005.

Application details are available at:

http://web.idrc.ca/en/ev-11768-201-1-DO_TOPIC.html

FRIDA funding Latin American research

Just as APNIC is a partner with IDRC and others in the PAN Asia ICT R&D grants programme, so too LACNIC partners the IDRC Pan Americas Research Initiative and the Institute for Connectivity in the Americas (ICA) to fund projects in Latin America and the Caribbean.

The Regional Fund for Digital Innovation in the Latin America and Caribbean (known as FRIDA), aims to:

- promote the development of regional research capacities within the area of Information and Communication Technologies for Development;
- promote the development of technical capacities relating to the Internet and other technological applications;
- promote digital inclusion; and
- strengthen and promote the Information Society within the countries of the region.

Through FRIDA, small grants are made to research projects in the field of Information and Communication Technologies, for amounts of up to US$12,500.

More information on FRIDA is available at:

http://www.programafrida.net

ERX project completed

In December of 2004, APNIC completed the task of importing all appropriate records in the network block 192/8 from the ARIN database. This marked the completion of the Early Registration Transfer (ERX) project, begun in January of 2003.

This ERX project is a coordinated, cross-RIR effort to move whois records for address space registered before the advent of the RIRs into the whois database of the RIR in whose region the registrant is based. It was agreed at the project's inception that this would be the best way to serve the interests of holders of these early registrations.

While the most significant phase of the project is now complete, activities relating to the project will continue into 2005.

AfriNIC is likely to require a small ERX-like transfer process early this year, which will be completed in time for its formal acceptance as an RIR.

More information on the ERX project and APNIC's role in it can be found at:

http://www.apnic.net/db/erx/relatedmeeting.html

Lame DNS cleanup: project update

DNS reverse delegations are considered lame if some or all of the registered DNS nameservers are unreachable or badly configured. This can cause a variety of problems across the Internet, including delays in service binding for clients using affected address ranges, refusal of service due to failures during DNS processing, and increased DNS traffic between caching DNS nameservers and the listed authorities down from the root, processing requests which can only fail after timeout.

For these reasons, a project to sweep the APNIC Whois Database of lame reverse DNS delegations was endorsed by the APNIC Executive Council in December of 2003. This process has involved conducting tests to identify all lame reverse delegations, contacting the organisations responsible for these delegations with instructions on how to correct the situation, and finally, after a 45-day notification period, sweeping the APNIC Whois Database of those delegations that have proved consistently lame.

Over 6500 notification emails have now been sent out by the APNIC Secretariat to organisations responsible for lame delegations. Of these, a number have proved to be consistently lame for more than the 45-day notification period, and 1103 of these reverse delegations have now been removed from the APNIC Whois Database.

For more information on APNIC's reponse to lame reverse DNS delegations, see:

http://www.apnic.net/services/rev-del/lame-del/index.html

There is also an FAQ page at:

http://www.apnic.net/info/faq/lame-del-faq.html

CRISP project update

CRISP, or the Cross Registry Information Service Protocol, represents the next generation of whois information tools.

Based on XML, the protocol offers several advantages over existing whois services:

- CRISP will be implemented in common by all of the RIRs and will provide users with a cohesive, consistent view of registry-managed data for the whole Internet.
- It also unifies the view of data for both number resource management and domain name management.

The IETF CRISP working group, of which APNIC Technical Services Manager George Michaelson is currently Co-chair, last year issued its first RFC, the requirements specification document RFC 3707. In the first days of 2005, the working group published 3 more RFCs specifying the domain name behaviours (RFC 3982), the layering for CRISP to BEEP (RFC 3983), and the core protocol (RFC 3981).

Additional RFCs are expected to be published this year, most likely in time for the July IETF, to be held in Paris. These RFCs will specify AREG, a subset of particular relevance to APNIC activities, and an additional work item, lightweight IRIS, which will provide a faster subset of behaviour for query.

The working group also hopes to see a CRISP profile for routing, which has been an initiative of members from the APNIC region.

CRISP services are expected to become available in 2005, with the NRO providing a context for common implementation and coordination between the RIRs. APNIC expects to be implementing CRISP services in test form throughout the life of the working group, and will be participating fully in the development and deployment of the protocol over the coming years.

Thee RFCs mentioned above are available from the APNIC IETF document mirror at:

http://ftp.apnic.net/ietf/ietf-mirror

For more information on the CRISP working group, see:

http://www.ietf.org/html.charters/crisp-charter.html

Training Report

Training in 2004

A full training schedule in 2004 saw APNIC training staff deliver 34 courses in 25 locations throughout the region, reaching more than 900 Internet professionals over the course of the year. The year also marked several significant milestones for the APNIC training programme, including the first APNIC training event in Pakistan, which was hosted by the NUST Institute of Information Technology, and held at the NIIT Rawalpindi campus.

In March, APNIC held its first collaborative training event with AIT/intERLab in Thailand. The courses were conducted in Bangkok, Thailand at AIT campus, and included the new DNS workshop and a session on Internet resource management essentials.

In July, APNIC was invited by the University of Malaya to conduct an Internet resource management enrichment tutorial for their Information Technology Masters programme. The session attracted nearly 80 students, university staff, and APNIC members.

The APNIC Training team also continued its support of Network Operators Groups around the region, delivering training courses in conjunction with SANOG III in Bangalore, India, SANOG IV in Kathmandu, Nepal, and NZNOG'04 in Hamilton, New Zealand.

Course development

APNIC's range of training courses continued to develop in 2004, beginning with the newly finalised DNS workshop, deployed early in the year. This is a 2-day workshop designed to help networking professionals understand DNS concepts, configuration, and operations, and over the course of the year, it was presented at eight locations around the region, including Malaysia, Thailand, Hong Kong, and Singapore.

In addition to this 2-day course, development began in early 2004 on a 4-day Advanced DNS workshop, expanded to include DNS security and other advanced topics. This course was first deployed in December, and will be a significant part of the APNIC training curriculum over the coming years.

Finally, APNIC launched another new technical tutorial in 2004, the APNIC Internet Routing Registry tutorial. This was first delivered at the APNIC 17 meeting in Kuala Lumpur in February 2004.

The APNIC Training department extends its gratitude to all of the sponsors who have been instrumental in helping to stage APNIC training sessions throughout the year, and looks forward to a busy and productive 2005.

Training Statistics

Courses	1st half year	2nd half year	Total for year
IRM courses	11	10	21
DNS workshop	3	5	8
IRR tutorial	2	3	5
Total	**16**	**18**	**34**

Special thanks to the following APNIC training sponsors:

REPUBLIC POLYTECHNIC

CAT TELECOM

Sri Lanka Telecom

HKedCity

Training schedule

2005

February

- **16 - 25** Kyoto, Japan (in conjunction with APNIC 19/APRICOT 2005)

March

- **15** Port Moresby, Papua New Guinea
- **29 - 31** Cebu, Philippines

April

- **12 - 13** Vellore, India
- **15** Delhi, India
- **TBA** Fiji (In conjunction with the PITA AGM)

May

- **9** Sydney, Australia
- **TBA** Pakistan

June

- **13** Bangkok, Thailand
- **14 - 17** Bangkok, Thailand
- **20** Vientiane, Laos
- **22** Phnom Penh, Cambodia

The APNIC training schedule is provisional and subject to change. Please check the website for regular updates at:

www.apnic.net/training

If your organisation is interested in sponsoring APNIC training sessions, please contact us at:

training@apnic.net

Visiting Staff

Siamak Hadinia
Intern, Technical Department

Siamak Hadinia has been with the APNIC Technical Department since December 2004 as an intern. Originally from Iran, Siamak has been responsible for a number of projects at APNIC, including studies of the Secretariat's network cable plan, UPS power budget, and heating, ventilation, and air conditioning systems.

To participate in the visiting staff programme please contact your manager and email a request to <dg@apnic.net>, including your contact details, job role, and a short description of your areas of interest.

Calendar

WSIS PrepCom 2
17-25 February 2005
Geneva, Switzerland
www.itu.int/wsis/preparatory2/pc2

APNIC 19/APRICOT 2005
18-25 February 2005
Kyoto, Japan
www.2005.apricot.net

62nd IETF
6-11 March 2005
Minneapolis, USA
www.ietf.org

Global IPv6 Summit in China 2005
4-6 April 2005
Beijing, China
www.ipv6forum.org

ICANN Meeting
4-8 April 2005
Mar del Plata, Argentina
www.icann.org/meetings

ARIN XV
17-21 April 2005
Orlando, USA
arin.net/membership/meetings

RIPE 50
2-6 May 2005
Stockholm, Sweden
ripe.net/ripe/meetings

ICANN Meeting
11-15 July 2005
Luxembourg City, Luxembourg
www.icann.org/meetings

SANOG VI
16-23 July 2005
Thimphu, Bhutan
www.sanog.org

63rd IETF
31 July - 15 August 2005
Paris, France
www.ietf.org

RIPE 51
8-14 October 2005
Amsterdam, Netherlands
ripe.net/ripe/meetings

ARIN XVI
26-28 October 2005
Venue TBA
arin.net/membership/meetings

64th IETF
6-11 November 2005
Vancouver, Canada
www.ietf.org

ICANN Meeting
30 November - 4 December 2005
Vancouver, Canada
www.icann.org/meetings

How to contact APNIC

Street address	Level 1, 33 Park Road, Milton, Brisbane, QLD 4064, Australia
Postal address	PO Box 2131, Milton QLD 4064, Australia
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Fax	+61-7-3858-3199
Web site	www.apnic.net
General enquiries	info@apnic.net
Hostmaster (filtered)	hostmaster@apnic.net
Helpdesk	helpdesk@apnic.net
Training	training@apnic.net
Webmaster	webmaster@apnic.net
Apster	apster@apnic.net

▶ The Member Services Helpdesk provides APNIC members and clients with direct access to APNIC Hostmasters.

Helpdesk Hours
9:00 am to 7:00 pm
(UTC + 10 hours)
Monday - Friday

Member Services Helpdesk

helpdesk@apnic.net

www.apnic.net/helpdesk

☎ +61 7 3858 3188

+61 7 3858 3199

APNIC

Communicate with APNIC via MyAPNIC

APNIC members can use MyAPNIC to:

- view APNIC resources held by their organisation
- monitor the amount of address space assigned to customers
- view current and past membership payments
- view current tickets open in the APNIC email ticketing system
- view staff attendance at APNIC training and meetings

For more information on MyAPNIC's features, see:

www.apnic.net/services/myapnic