

Tech Interview

Exploring the roots of Public IP address

THE internet today could be accessed globally with the click of a mouse. The easy access to the internet without any barriers was only possible by the contribution of Internet Assigned Numbers Authority (IANA) which has distributed its responsibilities to four regional internet registries (RIRs) that hold the backbone of internet.

APNIC, ARIN, LACNIC and RIPE NCC are the four RIRs that maintain the internet protocol addresses worldwide performing their tasks invariably. **Gerard Ross (GR)**, documentation manager, Asia Pacific Network Information Center (APNIC), explained their systems and services in an exclusive online interview with **Saad Bin Fazle Hammedi (SH)**.

SH: Please tell us about the Asia Pacific Network Information Centre (APNIC) and its services?

GR: The APNIC, the Asia Pacific Network Information Centre, is one of four regional internet registries currently operating worldwide. It provides allocation and registration services which support the operation of the internet across the globe. It is a not-for-profit, membership-based organisation whose members include internet service providers, National Internet Registries and similar organisations. The APNIC represents the Asia Pacific region, comprising 62 economies. It distributes and registers IPv4 and IPv6 addresses and autonomous system numbers (ASNs) and provides reverse DNS delegations for those resources. The APNIC also holds open public policy meetings and conducts training sessions around the region.

SH: Who are national internet registries (NIRs)?

GR: A National Internet Registry (NIR) is a member of the APNIC that primarily allocates address space to its members or constituents, which are generally local internet registries (LIRs) organised at a national or distinct economy level.

The NIRs are expected to apply their policies and procedures fairly and equitably to all members of their constituency. The current NIRs are JPNIC (Japan), KRNIC (Korea), TWNIC (Taiwan), CNNIC (China), APJII (Indonesia), and VNNIC (Vietnam).

The NIRs have long existed within the APNIC structure and have fulfilled an important role in serving organisations within their respective countries or economies. The NIRs can satisfy the need for procedures and services that take account of local cultural differences; however, it is important to note that the NIRs must operate in a way that is consistent with regional and global resource management policies. It is also essential that the NIRs are neutral, open, and transparent in all their operations.

A fundamental aspect of the NIR structure in the APNIC region is that responsibilities which have been delegated to the APNIC are partially re-delegated to another body, namely the NIR. The conduct of that NIR in carrying out its delegated responsibilities may have serious impact on the overall management of IP resources in the Asia-Pacific region, and is therefore of critical ongoing interest to the APNIC.

An organisation wishing to be recognised by the APNIC as an NIR must have formal endorse-

ment at the national level by the appropriate government body.

SH: What is the contribution of the APNIC in Bangladesh? Who are the national internet registries (NIRs) of Bangladesh?

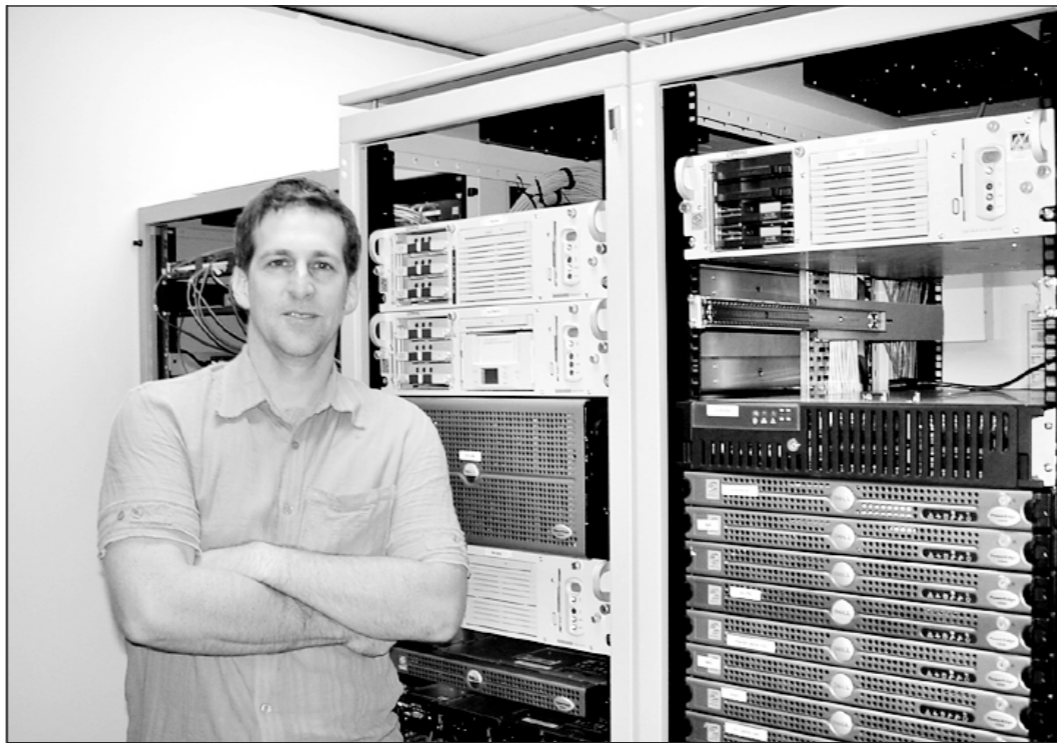
GR: The APNIC provides the same service to all economies within its region, including Bangladesh. Currently there are 24 Bangladeshi organisations which are members of the APNIC. These organisations receive resource services from the APNIC, are able to attend the APNIC meetings, and participate in the policy development process. The APNIC has conducted Internet resource management training courses in Bangladesh in January 2002, January 2003, and October 2003, which have benefited several hundred attendees.

The APNIC is also a major sponsor of, and participant in, the PANAsia research & development grants program, which provides funding to ICT-based projects in developing countries. Organisations planning to undertake such projects in Bangladesh are encouraged to consider applying for funding under this program: <http://www.panasia.org.sg/>

SH: What classes of internet protocol (IP) addresses do Bangladesh receive?

GR: The system of classful internet addressing (Class A, Class B, and Class C) was phased out many years ago. Classful addressing was very wasteful of IP addresses, so more efficient ways of allocating and routing addresses were developed, to allow networks to be allocated sufficient addresses to meet their actual need.

APNIC's allocation policies



Gerard Ross at APNIC's server room

apply equally to all organisations in our region, no matter where they are. All organisations in the APNIC region, including Bangladeshi organisations, may request IPv4 or IPv6 addresses to meet their documented network requirements.

SH: BRAC BDMail Network Ltd. is one of the founder members of the APNIC representing Bangladesh. How does it contribute to the APNIC?

GR: All founding and incumbent members of the APNIC have helped APNIC develop into a well-established, stable, and successful organisation.

Members support the APNIC by paying membership fees, which fund the APNIC services and activities, and by participating in the open policy development process which ensures that APNIC's services remain responsive to the needs of the regional and global Internet communities.

SH: Please explain the purpose of public IP addresses?

GR: The IP addresses are used to uniquely identify every host which connects to the global internet. These hosts (computers, routers, servers, or other machines) require an IP address

to be identified and for information to be routed to and from the host.

SH: In which places and for what services are the public IP addresses recommended to be used?

GR: In general, services which need to be routed on the global internet will require public IP addresses. Private address may be used for networks which are not connected to the Internet. Private addresses may also be used for addressing networks that are connected to the internet via a firewall, and where there are not technical requirements for the use of public address space; however,

the APNIC policy does not require anyone to address their networks in this way.

SH: The operational policies of the APNIC include terms of 'Allocation Request' which says, the NIRs must provide all required information to create the applicable whois database object. What is the function of whois database and how do you operate it?

GR: The APNIC whois database is intended to ensure the uniqueness of the resources registered in it and to provide a way for the public to look up details relating to the custodianship of these public resources. For example, the contact details in the whois database may be used by other members of the internet community to contact networks where technical problems may be affecting others. The database is administered by the APNIC Secretariat, but holders of IP addresses are required to update the database to maintain their own registration details.

SH: What benefits do the members of the APNIC get from their membership? How do you charge for the membership?

GR: Joining the APNIC gives organisations access to all APNIC services, including requests for allocation and registration of internet address resources, and attendance at specialised training courses. The APNIC membership also gives organisations a voice in regional internet operations through participation in APNIC's policy development processes and voting rights at the APNIC member meetings.

The APNIC membership is open to all organisations. However, membership of the APNIC does not mean an

organisation will automatically be eligible for address space. All requests for address space must be justified by a documented need for the resources. APNIC has seven membership categories, generally determined by the amount of address space held, though member organisations can elect to join a higher category.

SH: IP Version 6 is a 128 bit address. What are the distinguishing features of this version and how many octets does it have?

GR: The main difference between IPv4 and IPv6 is the size of the available address pool, with IPv6 providing vastly more addresses than IPv4. While there are several other technical differences in the protocols, the essential point of both is to uniquely identify hosts that connect to the internet.

SH: Would IP v4 exist with IP v6?

GR: IPv4 and IPv6 already do coexist. Many networks around the world now provide their services in both IPv4 and IPv6. Most major operating systems support both protocols and most users will never know which protocol is being used when they connect to the Internet, as the end user experience is designed to be the same.

SH: What is the next mission of the APNIC?

GR: APNIC's 17th Open Policy Meeting will be held in Kuala Lumpur, Malaysia in February. At that meeting, the APNIC Secretariat will present its activity plan and budget for 2004. All those interested in APNIC's future are encouraged to come to the meeting and take part in the discussions.

Robo dog with conscience



PHOTO: AP

One of many robotic dogs, right, is seen on exhibit at the Gigantic Artspace in New York as people walk through the gallery on February 6. The dogs, which are wired to sniff out toxic materials, are the brain-child of Natalie Jeremijenko, a lecturer in engineering at Yale University and self-described technoartist.

Best 10 Websites category: Top Website Design I

- Billabong**
State of the art creation from top sports fashion group. Elegant, stylish, effective & functional. Stunning work.
URL: <http://www.billabong.com/>
- 2Advanced Studios**
Popular website based on Flash.
URL: <http://www.2advanced.com/>
- Spark Online**
International online culture magazine with writers, animators & digital artists collaboratively exploring electronic consciousness.
URL: <http://www.spark-online.com/>
- Giorgio Armani**
Top fashion stylists with beautiful website.
URL: <http://www.giorgioarmani.com/>
- Ford**
Highly effective integration of visual elements & product design.
URL: <http://www.ford.com.au/>
- Yigal Azrouel**
Fashion style & refined website elegance.
URL: <http://www.yigal-azrouel.com/>
- Look and Feel**
New media designers making clever use of humor with an entertaining, animated site host.
URL: <http://www.lookandfeel.com/>
- bobe**
Dramatic effects flowing from the effective use of movement, action & space by these cool digital artists.
URL: <http://www.bobe.cl/>
- 156 Design**
Quality animation displaying good "alpha

Tech News

BASE becomes Oracle reseller

STAR TECH DESK

BASE Limited, one of the leading IT education and software development company in Bangladesh has become the official reseller for all Oracle software sales for Bangladesh region. Under this arrangement, BASE is now officially authorised to engage in direct sales of all Oracle software and post-sales customer service. To bring this to light BASE arranged a press conference on February 8 at a city hotel.

BASE Limited has been operating as the only authorised education partner of Oracle since 1999. BASE is to become the second company after IBCS-Primax to be awarded the reseller agreement.

As a part of Oracle customer service upgrade required for Oracle re-sellership, a dedicated team comprising of Mirka Kristina Rahman, director operations; Nazmul Bashar, centre manager; Imtiaz Rahim, technical manager;



Samina Rizwan (L), regional manager, SAGE (Oracle Corporation) shakes hands with Mahboob Rahman, managing director of BASE Limited, after signing the agreement.

Sultan Faruq Pasha, senior enterprise engineer and Riyadh Mahmood, executive, marketing and sales passed the highly acclaimed Oracle Sales Champ examination.

BASE will be providing international standard customer service to Oracle software clients. BASE Limited follows Oracle's transparent pricing strategy

providing its customers latest price information and guidance in software investments.

While asked about the company's vision, Mahboob Rahman, managing director, BASE Limited said, "By implementing Oracle applications we can bring good governance to a company. Most of the mechanisms in our country are still

manual. Oracle is such a technology; one can integrate almost everything through it." He also said that with the help of Oracle applications we can reduce corruption and develop the country in many ways.

With increasing demand of BASE consulting services and solution from the existing clients, BASE is expanding its consulting and IT solutions services. The key focuses of consulting areas are -- Oracle Software Installation and Integration, Database Maintenance, Enhancement and Upgradation, Design & Analysis and System Integration. With existing customised software development work BASE has been focusing on developing enterprise solutions, customised for local environment based on Oracle Technologies.

BASE Limited has already acquired hands-on expertise on Oracle collaboration suite set-up and training for the Bangladesh Army.

Photo Tech

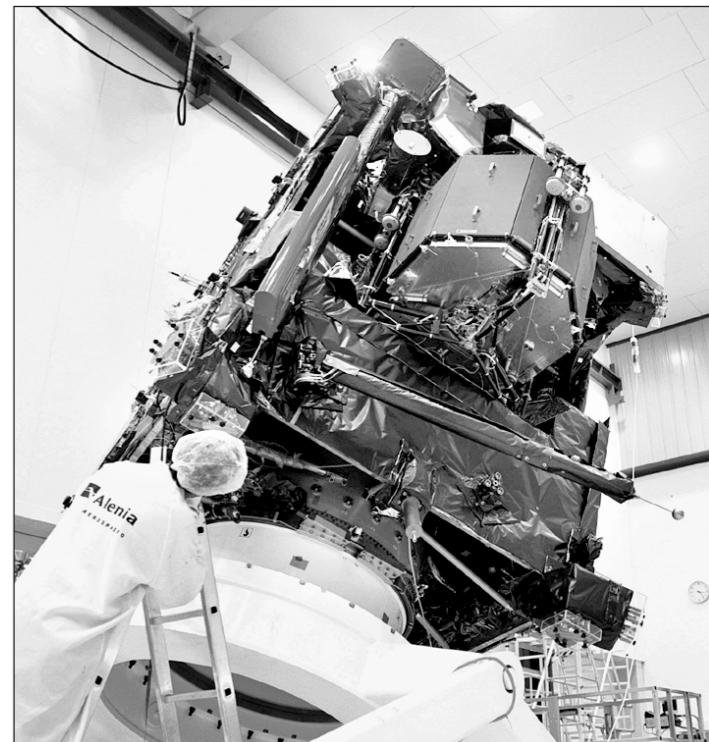
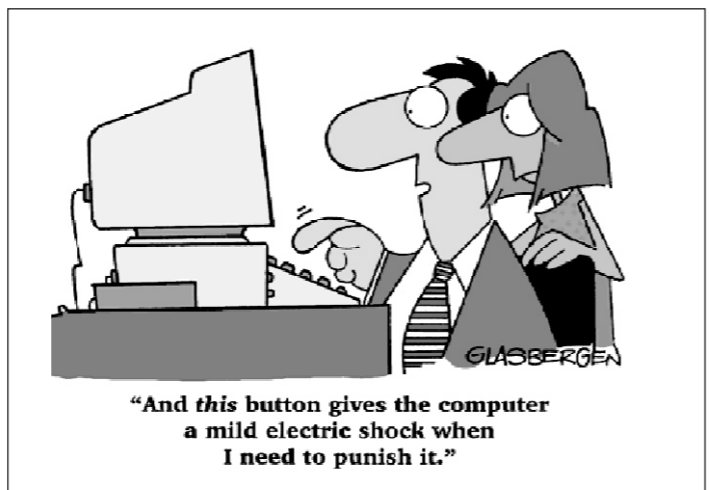


PHOTO: AFP

Undated photo shows technicians working on Rosetta, the billion-dollar comet-chasing spacecraft at the Musc laboratory in Cologne, Germany. Rosette is due to be launched on February 26 from the European Space Agency's space base in Kourou, French Guiana, on a 10-year mission to chase the comet Churyumov-Gerasimenko and land a laboratory probe on its surface.

Tech Toon



"And this button gives the computer a mild electric shock when I need to punish it."

Tech Snap

DIT's 5th batch to kick off

IT Bangla Ltd, a local IT firm has been conducting a 'diploma in information technology (DIT)' under a pilot project titled "Develop IT Professionals for Bangladesh" under Assumption University (ABAC), Thailand's Bangladesh premise, says a press release. Assumption has been directly providing the course materials, technical support as well as faculty training for this course.

Three batches have already completed the course and DIT's 4th batch is expected to complete the diploma this September. Assumption University (AU) is going to start its DIT 5th batch from March 20 at IT Bangla premises. Admission form will be available from February 14.

For more information, interested persons may contact IT Bangla Ltd, 32 Tophkhana Road, Chattagram Bhaban, 3rd Floor, Dhaka. For details www.itbangla.net.

Tech News

Web portal can add speed to business

Seminar at Rajshahi

STAR TECH DESK

BANGLADESH Development Gateway Foundation (BdDGF) has started web portal based activities for social development. BdDGF has taken an initiative to organise seminars in the regional areas of the country to define the role of their portal www.bangladeshgateway.org in the development activities and how different types of organisations in the society can take part in this process.

As the first phase of this scheme BdDGF arranged a seminar titled "BdDGF Web Portal and Countrywide its Impact" in Rajshahi on January 23 in association of Rajshahi Chambers of Commerce and Industries (RCCI), says a press release. The seminar was held at the RCCI's auditorium charing Md. Lutfur Rahman, president, RCCI.

While addressing the seminar the chief guest said,



"Few years ago there were no high-tech communication facilities available at Rajshahi to connect with other parts of the country and foreign countries. Now the people of Rajshahi are enjoying enormous telecommunication facilities as this sector has been developed in the recent years. The number of internet users are also growing high." He also said that through this the people of Rajshahi will be able to display their traditional

silk industry and the prosperous trade sector to the rest of the world. Afrauz Zaman Khan Chowdhury Babul, vice-president, RCCI made introductory speech at the seminar.

Habiba Tasneem Chowdhury, executive director, BdDGF exemplified the activities of her organisation to the members from the chamber and other institutions present at the seminar. She demonstrated the various tasks of the portal in

accomplishing the different social activities. "Any trade organisation here in Rajshahi can display their information in this portal. There is a chance to publish the data of business in Rajshahi for free. The developmental activities' information may be posted to BdDGF either by e-mail or by post". She added, "There are almost three thousand internet users in this town. If the activities of this portal are disseminated in this town, the number of this kind will increase to a great instant."

Zamilur Rahman Chowdhury, member, RCCI presented the RCCI's website in the seminar. Khondokar Hafizur Rahman, chairman, House Committee, RCCI and Kasem Ali of BdDGF also spoke at the seminar. A question-answer session on the role of the web portal followed the seminar.

BdDGF wishes to arrange this type of seminars in different divisional town in the coming days to establish the importance of the portal in the developmen-