

# Architects of Tomorrow for University's Communication Lines



Network Engineering, located on the first floor of Butrovich, includes from left to right: Kerry Digou, Shawn Armstrong, Chirk Chu, Ajay Nautiyal and Manager Ian Hegdal (seated in center).



Ian Hegdal and the Network Engineering group he manages are the architects of tomorrow for the university's communication lines. In a complex and constantly changing environment, they design the networks vital to the flow of information between campuses and between the university and the rest of the world.

In the great scheme of things in Information Technology Services, Network

# **Network Engineering**

Engineering is part of the Systems Services department.

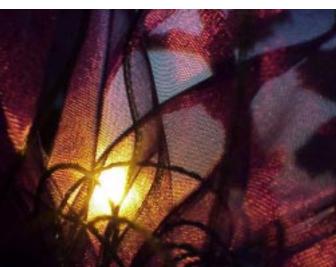
They work side-by-side with the Operations Services department to keep all the networks up and running. Network Engineering designs the network infrastructure, and Operations Services takes over the implementation and daily operation.

Or as Ian puts it: "I like getting circuitry and hardware together, and then getting them to talk to each other."

Hegdal's staff consists of Shawn Armstrong, senior network engineer; Chirk Chu, chief security officer; Kerry Digou, senior systems programmer; and Ajay Nautiyal, senior systems programmer. In designing a new network, they must plan the most efficient routes over multiple paths of optical fiber, copper and wireless connections so data, video and audio get from one place to another as fast as possible with a minimum of distortion

Trouble-shooting duties fall to Network Engineering, too. And it can be tedious, time-consuming work. A problem with someone's Internet connection could be on just one computer, could be a glitch in the local building network, could be a problem with the campus network, could be a private carrier transporting data (continued on the back)





Imaginations run wild this time of year as the cold sets in and the sun rises and sets in the south. Instead of being greeted by the sun as we drive to work in the mornings, we're greeted by the moon.

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### Spotlight continued

between campuses and beyond, could be a problem with the university's primary connection to the rest of the world at the Seattle, and that's just the beginning of the list of possible problem spots. Much of the time, the trouble-shooting can be done remotely.

Network Engineering finds the problem, and then either fixes it, or gives directions so somebody on site can fix it.

Two of the most important roles are security and maintaining the registration of Internet domain names. Security, overseen by Chirk Chu, is a constant struggle to define the razor's edge of keeping university networks and systems safe from attacks while maintaining a free and unencumbered flow of information. Chirk chairs the systemwide Computer Incident Response Team (CIRT) which keeps a vigilant eye out for any intrusion or disruption of the university information systems.

Internet Domain name registration management means Ian and his crew are the people who technically create those new web addresses people need, like "info.alaska.edu." The domain "alaska.edu" is registered and owned by the university. No one else can use it. That means the university can create subdomains. The subdomains are the names like "info" that appear to the left of "alaska.edu." A department requests a new subdomain name; Steve Smith, the university's chief technology officer, approves it; Network Engineering performs the technical wizardry to implement it.

"In addition to all their other duties, Network Engineering staff get to peer into the future and work with the best minds in network technology around the world on

Internet2," said Smith, "and that's the future of information technology." lan and his crew, particu-

lan and his crew, particularly Kerry Digou, have been working for the past nine months with their counterparts in Amsterdam to set the Land Speed record for fastest sustained network connection between two points. This is an award given annually at the Internetz conference. It is based on distance and speed. The competition is stiff: the likes of Carnegie Mellon and Stanford University are among the competition.

Hegdal represents the university on the State of Alaska Technical Advisory Committee (TAC). The TAC is a group of the best IT minds from all state agencies and institutions that advises the Telecommunications Information Council (TIC) on the technical details of IT policies and plans. The TAC reviews all technology capital requests, including the university's, so lan plays an important role on the funding side of technology in Alaska.

And, according to Smith, he wields a mean pair of wire cutters

"Ian is famous for his precise and neat wiring," Smith explained. "Looking at a Hegdal wiring job is like appreciating a fine work of art. I can recognize Ian's signature work by its clean, logical layout. Not a wire is out of place."

lan's too modest to brag about his own work, but it's clear that he's pleased with the performance of his staff. "We seem to be able to accommodate most of the leading edge requests for services," he said.

# Regents Meet in Anchorage on Thursday and Friday This Week

The Board of Regents will be meeting in Anchorage this Thursday and Friday, Dec. 6-7, with all board and committee meetings held at the University Commons on the UAA campus.

The agenda includes several new academic programs, establishment of the Rasmuson Chair of Economics at UAA, and a variety of capital projects around the system.

## More Health Forums Planned

Statewide Benefits and Blue Cross Blue Shield of Alaska hosted a series of free public forums with leading Fairbanks physicians during October and November, and more are in the planning stage.

The topics covered included Osteoporosis, Safe Baby Shower and Asthma and Allergies. Over 40 individuals attended each program. Because of the high attendance, Statewide Benefits and Blue Cross Blue Shield of Alaska are actively planning a second series of public forums for after the first of the year.

### Transitions...

Jennifer Balster is the new Human Resources Recruitment and Retention Coordinator. In her position, Jennifer will assist with new hires and vacancy announcements.

Born and raised in Fairbanks, Jennifer attended North Pole High School and graduated from Adams State College, Alamosa CO, earning a BS in Economics. She's currently working on a MBA in Capital Markets.

## For Sale or Trade

Send your items for sale or trade by e-mail to: bob.miller@alaska.edu

From Mike Humphrey, 474-3701:

For sale: 4 215/75 R 14 snow tires, make an offer.

From Tammi Ganguli, 451-6767: For sale: Pro Form Treadmill. \$400 O.B.O. Features include: Wide Track, Incline, and Heart Rate Monitor. Maintains time, pace and calories burned for each work out session. Has book holder and bottle holder. 3 years old but like new.

From Ron Allen, 485-3965: 1991 (?) Polaris G.T. Sport long track snowmachine. \$900 obo.

From Amanda Wall 457-9300: Matching coffee and end tables, oak with brass trim and glass inlay tops. \$100 for all obo.

F<u>rom Betty Dupee, 7123 or 479-4590 eve:</u> 2BD 2nd floor apt in duplex in

Aurora. Available Dec 1, W/D/ DW/utilities included, Cathedral ceilings, fireplace. \$895/month plus deposit.

From David Bunzow, 474-5005: Used in good condition appliances including dishwasher, washer, dryer and electric range. Will sell as a group for \$400, or individually at \$125 each (you pick up at my home).

From Adela Batin, 455-6691: Brand new large accordionstyle folding doors, 10'x 20' oak with rails, \$800 obo, 8'x 15' mahogany with rails, \$500 obo.

From Mike Brase, at 474-7989 1994 Nissan Pathfinder SUV. 4WD, 4 DR, AT/PW/PD, cruise, AM/FM cassette, extra studs on rims, fully loaded. Even heated mirrors! Great family rig and sporty enough for college student. 67K miles, asking \$9850 obo

## On the Move is Online

Go to: www.alaska.edu/opa/ onthemove. **Deadline** for the next issue is Monday, December 17th by the end of the day.

Jennifer Balster



