

Special Workshop on Intelligence at the Network Edge

Sponsored by the USENIX Association with support from 3Com

<http://www.usenix.org/events/es2000>

March 20, 2000

Holiday Inn–Fisherman's Wharf, San Francisco, California, USA

Important Dates:

Submissions due: *November 15, 1999*

Notification to authors: *November 29, 1999*

Registration materials available: *January 2000*

Final camera-ready papers due: *February 1, 2000*

Special Workshop on Intelligence at the Network Edge:

March 20, 2000

Workshop on Applications of Embedded Systems:

March 21-23, 2000

Workshop Overview

On March 20, 2000, USENIX will hold a one-day workshop on the specific area of intelligence at the network edge. This will precede the Workshop on Applications of Embedded Systems being held at the same venue on March 21-23.

Until now, the network core sustained a large percentage of the processing necessary for network control, but as the power of embedded systems increases, control processing will naturally migrate toward the network edge. This trend *may* open up opportunities to correct deficiencies in current networking protocols and designs caused by previously unanticipated scale and other design issues just as it surely *will* enable services that are currently uneconomic or operationally infeasible.

The goal of this one-day workshop is to explore ways in which embedded systems located at the edge of a network can improve network service especially given the huge amount of conventional network infrastructure being laid down as we speak. Perhaps obviously, such systems might be located in:

- Low-cost communications subsystems attached to an end-system's internal bus
- Edge devices such as layer 2 switches, broadband modems, and home gateway equipment
- Wireless NICs and access points
- Low-cost layer 3 switches
- VoIP (e.g., Ethernet) phones and fax
- Handheld devices
- Network capable gaming devices
- Set-top boxes and interactive HDTV sets
- Distributed entertainment systems
- Network storage and cache
- Smart appliances
- Utility (e.g., water, power, natural gas) measurement and control devices

Services that these devices might support include:

- Local traffic admission control
- Layer 4 and higher switching
- Local area congestion control
- Security
- High-availability
- Network management
- Policy management
- Routing control
- Mobility
- Qos/Cos provisioning
- Managing and measuring service level agreements
- Plug-Play/auto-configuration
- Discovery of network services
- Storage, caching, and data synchronization
- PBX & conferencing
- Intelligent agents

Of course, we are looking for your insight on these matters, especially to the extent that you are actually building something.

What To Submit

Since the size of this workshop is limited, attendance is by request with preference to those who submit an extended abstract for evaluation by the program committee. Your abstract should describe original work concerning placing and using intelligence at the network edge. We are not looking for spin-papers on already well publicized work or the next small increment to a decade-old idea. Rather, we are seeking radical new architectures, exceptionally promising prototypes, enlightening case studies. The abstract should convince the reviewers that a good paper and 20-minute talk would result. Identify what has been accomplished, why it is significant, and compare it with relevant work in the field. Include references, illustrations, and performance data. Be incisive and cogent. If you have no such abstract to submit, describe your work and interest in this Workshop in some other way as convincing.

Questions and submissions should be directed to the Chair of this workshop: Dan Nessett, 3COM, 408-326-1169 or dan_nessett@3com.com

Registration Materials

Materials containing all details of the technical program, registration fees and forms, and hotel information will be available in January 2000. If you wish to receive the registration materials, please visit the workshop Web site or contact:

USENIX Conference Office
22672 Lambert Street, Suite 613
Lake Forest, CA 92630, USA
Phone: +1.949.588.8649
Fax: +1.949.588.9706
Email: conference@usenix.org