

SIGNET NEWS

Dept. of External Affairs
INFORMATION TECHNOLOGY NEWSLETTER OF THE DEPARTMENT OF FOREIGN AFFAIRS AND INTERNATIONAL TRADE

WHERE WERE YOU WHEN THE FIT HIT THE LAN?

by Paul S. Dunseath
Director, Operations Division
(STO)

Those of us who are sufficiently long in the tooth may recall that when computer systems first became widely accepted in the workplace they were known as "batch processors". They lived in a glass-walled room in the bowels of a building and were tended by a coterie of acolytes who controlled and scheduled them. "Jobs" were submitted in the form of a stack of punched cards, and the resulting "printout" was delivered to the user one or two days later. The computer room staff were able to ensure that work was prioritized and that the computers were never overloaded. The systems were reliable and, for their day, relatively rapid.

That situation changed forever with the development of "real-time systems". First used in the airline reservation industry, these systems have spread and are now ubiquitous. A "real-time system", of which both your bank's automated teller network and SIGNET are examples, is characterized by a demand-driven environment in which the load on the system cannot be accurately predicted. These systems exhibit a common phenomenon, which users of LMX02 and LMX12 in Headquarters unfortunately experienced in early April: performance remains relatively unchanged as the load increases, until "the final straw" - a complex combination of number of users, workload mix, and use of memory

and shared drives, at which point the performance abruptly becomes massively unstable.

Designers of real-time systems have limited tools at their disposal to avoid this from happening in a "live" situation. One is to simulate the system as a mathematical model before it is built, but this requires time, money, and access to valid "real world" data with which to load the simulation model. None of these were available to the SIGNET design team. As a number of users are painfully aware, the result is that when the system inevitably "hits the wall" in an operational environment, the resulting crash is public.

What is being done to minimize these occurrences? Operations Division is carefully analyzing server performance to identify where additional resources are required. In the case of the most heavily used facilities, this will likely result in some users being moved to another server. In addition, the manufacturer of the servers - Olivetti - is being called in at a senior level to agree on an action plan to stabilize the system.

As partners in SIGNET, we all have a role to play as well; even a casual scan of the shared drives will reveal that many people seem to be using them as an extension of their own personal filing space. Examples abound of documents, some quite lengthy and others no longer relevant, which are of limited or no interest except to the person who placed them there. This, of course, is not the purpose of the shared drives.

Not only does it make them difficult to navigate, but also deprives others of the use of part of a shared

The good news in all this is that SIGNET - which currently carries over 60,000 messages each day - is, if anything, a victim of its own success.

resource. Operations Division is in the process of undertaking a detailed review of the contents of all shared drives in Headquarters and archiving any documents which have not been accessed in the past twelve months. In addition, any unauthorized executable files (those with an extension .exe) will be deleted. As users, we can assist by periodically reviewing all of our files and deleting those which are no longer of importance. This is particularly relevant before a posting; as a rule of thumb, if you can't remember what a cryptic filename means, chances are your successor won't know either!

The good news in all this is that SIGNET - which currently carries over 60,000 messages each day - is, if anything, a victim of its own success. The SIGNET support people are committed to ensuring that the few potholes on the Department's Information Superhighway are paved over as quickly as possible, and that SIGNET continues to grow to meet your expectations and demands.