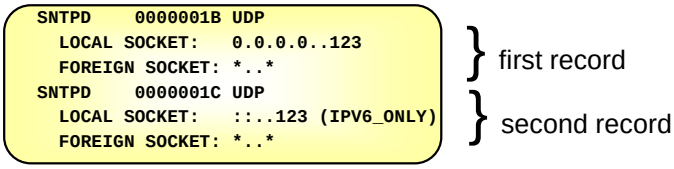
This presentation covers administration enhancements.

Netstat enhancements

- In V1R10, z/OS Communication Server provides a configurable maximum for records displayed by a D TCPIP,,NETSTAT MVS console command



  - Remember that the maximum value denotes number of records, not number of lines written to the console
    - the six lines above count as two records

The Netstat command can be invoked in 3 environments: TSO, z/OS UNIX shell, MVS console operator. These enhancements are for the MVS console operator environment.

The DISPLAY TCPIP,,NETSTAT command supports a MAX parameter which can be used to control the maximum number of records written to the console by the command. The parameter's value range is 1 – 65535. A value of * (asterisk) means all records should be written. In V1R9 and earlier releases, this MAX parameter has default value of 100 records but the default value is not configurable using a TCP/IP stack profile statement.

The default maximum number of records remains 100. This can now be changed with the new GLOBALCONFIG MAXRECS statement. Maximum can either be * (no maximum) or any value between 1 and 65535.

Be aware that number of records is not the same as number of lines. As shown in the example on this slide, one record can contain more than one line.

Also, if the number of lines displayed as the result of a D TCPIP,,NETSTAT console command exceeds 65535 before MAXRECS it hit, an error message is issued. In V1R9 you get an abend D23 in this case.

Netstat enhancements

- Now you can run the NETSTAT ALL report on the MVS console
  - This report can produce significant amounts of output if it is used without filters
- Made possible by the new MAXRECS configuration support
  - You can use this support to limit output
    - prevent the console from being overwhelmed with data

In V1R9, the NETSTAT ALL report is not supported on the TCPIP,,NETSTAT console command, because of concern about how much output it can generate. Now that you have the ability to code limits for this display, you can use NETSTAT ALL support on the MVS console command. This can benefit you if you use automation programs which parse the output of MVS operator commands. Detailed TCP connection and UDP endpoint data can now be displayed by the DISPLAY TCPIP,,NETSTAT command so that automation programs can access this data.

Health checker enhancements

- z/OS V1R8 Communications Server implemented initial support for and use of the z/OS Health-checker infrastructure
- z/OS V1R9 Communications Server extended support for and use of the z/OS Health-checker infrastructure
- z/OS V1R10 Communications Server adds more health checks, focusing on migration

Health checker is a z/OS infrastructure to help you diagnose problem configurations or practices that can cause problems on your system. A Health checker check is not an indication of a software error, but an indication that you should more closely examine part of your system or configuration to see if it can be improved, and common problems avoided.

Communications Server has been participating in the Health Check infrastructure since V1R8, with new checks added every release.

In V1R10, health check was added to verify that the BPXPRMxx INADDRANYPORT and INADDRANYCOUNT specifications match correct TCP/IP PORT/PORTRANGE definitions. These ports must be reserved to OMVS - if not, an abend EC6 can occur when Common INET tries to use one of them

Also in V1R10, checks are added to verify that these servers are not in use on the system. After z/OS V1R10, these functions will no longer be included in the z/OS Communications Server distribution. If you are using these functions, it is important that you plan for their removal **now**!

The functions are Boot Information Negotiation Layer (BINL) server, Berkeley Internet Name Domain 4.9.3 (BIND 4.9.3) DNS server, and Dynamic Host Configuration Protocol (DHCP) server. Also Network Database (NDB) server.

Other administration enhancements

- SNMP enhancements
- SMF and Network Management Interface enhancements

SNMP Enhancements include but subagent and agent enhancements.

SNMP subagent enhancements include upgrading version-neutral MIB support to RFC level. IBM also provides a new enterprise-specific interface up/down trap which provides the interface name, and interface up/down traps are no longer created for VIPA interfaces. The ibmMvsIfFlag MIB object now indicates if an interface is a dynamic VIPA.

A new –C parameter is added to the SNMP Agent, which controls setting of read and write file access permission bits for the z/OS UNIX path name. The default z/OS UNIX path name now created in /var directory

NMI Enhancements include providing SMF records for IPSec events without the application needing to poll for them. Also, existing NMI responses are updated to be as similar as possible to the corresponding SMF records.

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