



# Problem Solving Scenarios with NetView for z/OS

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## **Abstract**

 NetView for z/OS provides TCP/IP management support to address the needs of today's complex networks. In this session the speaker will describe new functions and capabilities, focusing on problem solving scenarios. One common set of problems requires running and reading an IP packet trace. The speaker will show how packet traces can be used to solve these problems. Another common set of problems requires browsing and searching records from multiple logs. The NetView for z/OS consolidated log facility (CANZLOG) combines the disparate logs into one.





# **Agenda**

- → Packet Trace
  - Consolidated Logging





## Packet Trace with NetView V6.1

- Start / stop a single ("global") trace
- Display unformatted packets
- View formatted packets and analysis of trace records
- Save traces into NetView data sets
- Control multiple systems from a single point



## New in NetView for z/OS V6.2



- Support for multiple, concurrent packet traces ("instance" traces)
  - Multiple users can trace multiple problems from a given stack at the same time, each using different trace criteria.
  - Operators can define filters for specific issues
  - Avoids creation of unneeded trace records
  - Requires z/OS Communications Server V2.1
- Save traces in IPCS format
  - Traces can be analyzed in IPCS using the IPCS formatter tool
  - Traces can be converted to Sniffer format for use in other tools
  - Traces from different systems can be merged into a single trace
  - Traces can be sent to Comm Server Support for diagnosis
- Navigation / Filter enhancements



# **NetView trace panel with z/OS 2.1**



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<sup>p</sup> l vmrop - [24 × 80]		Technology (Technology (Techno	nalogy - Connecti
File Edit View Communication Actions Window Help			
□    □    □    □    □    □    □	Trace Details	LOCAL	
TRANZCOZ FACREL	Hace Details	EUCHE	
Stack: TCPIP	Task:		
Start Time: NA Description:	Owner: NA	Status: NA	
Description:			
Interface Name: <u>*</u>	Port: <u>*</u>		
IP Address: <u>*</u>			
Payload: *	Protocol: S	All	
		TCP	
		UDP	
		ICMP	
		Number	
Actions: 1=START			
2			
Command ===> F1=Help F2=Main Menu F3=Return		F6=Roll	
11-netp-12-nath hend 13-ketulil		F12=Cancel	
MA∎ c		03/043	
Connected to remote server/host ralvmr.raleigh.ibm.com using	g port 23 Microsoft XPS Do	ocument Writer on XPSPort:	

# NetView trace panel pre-z/OS 2.1



<b>□</b> vmrop - [24 × 80]		
Eile Edit <u>V</u> iew <u>C</u> ommunication <u>A</u> ctions <u>W</u> indow <u>H</u> elp		
FKXK2A24 Display Packet Control		LOCAL
Trace Instance Autotask: AUTTRA1		NMP217
Stack: TCPIP I	nfc Name: <u>A</u> LL	
LAddr: *		
RAddr: <u>*</u>		
Portnum: * LPort: * RPort: * P	rotocol: _ All (d	lefault)
	_ TCP	
	_ UDP	
Start Time: <u>*</u>	_ ICMP	
End Time: <u>*</u>	_ OSPF	
MaxRecs: 1 1-Last <u>100</u> Truncate: <u>65535</u> 2-First	_	(Number)
Data Set Name:		
Command ===>		
F1=Help F3=Return F4=View Packets	F5=Save Packets	F6=Roll
F8=Extended Opts	F10=Analyze	F12=Cancel
MA c		04/062
Connected to remote server/host ralvmr.raleigh.ibm.com using port 23	Microsoft XPS Document Writer	on XPSPort:



## **Scenario: Packet Trace Connectivity**



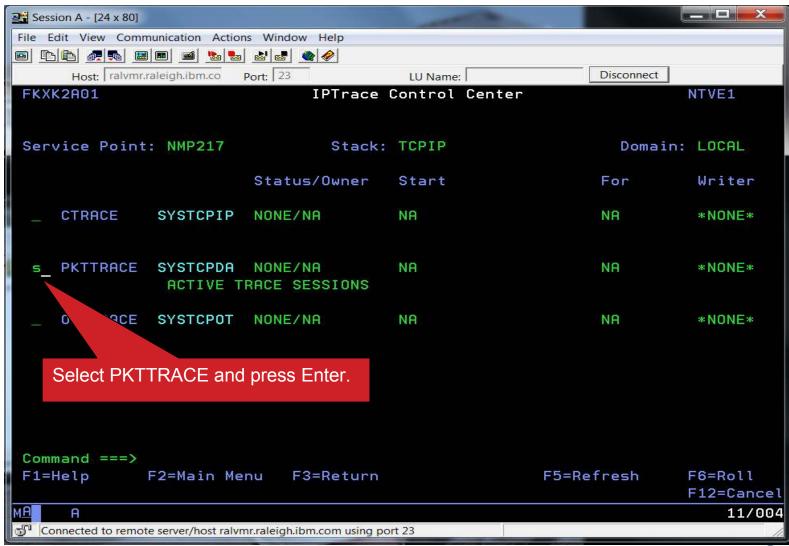
#### Scenario:

 Users report an intermittent problem where it takes "a long time" to connect to an application. Occasionally, the connection attempt fails. They have noticed the problem occurs almost every day, at somewhat predictable times.

#### Resolution Steps:

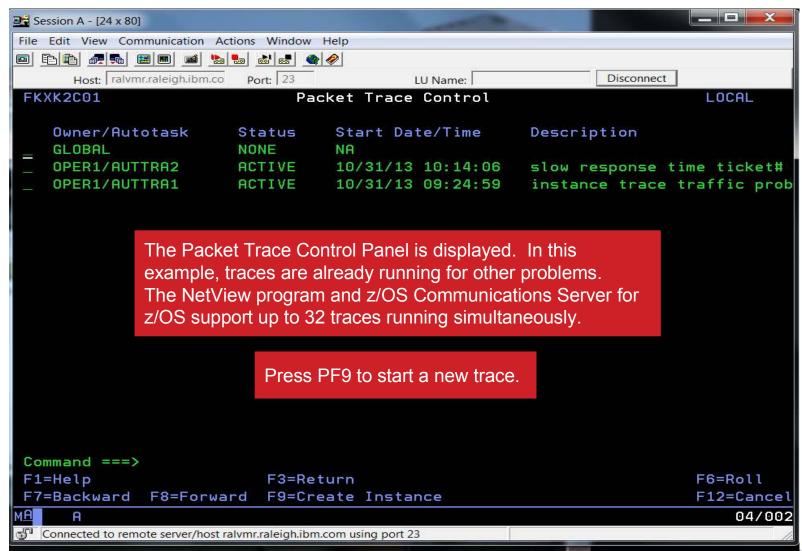
- Use packet trace to help determine if there is a network problem.
- Tracing the entire network should encompass the problem, but would result in a lot of packets to review.
- By determining individual users' IP addresses, we can limit the data that has
  to be reviewed.
- Multiple traces can help to compare a working connection attempt to a failing one.
- Further analysis may be desired. The traces are saved in IPCS format, allowing them to be read by IPCS, where they can be merged or analyzed in more depth.





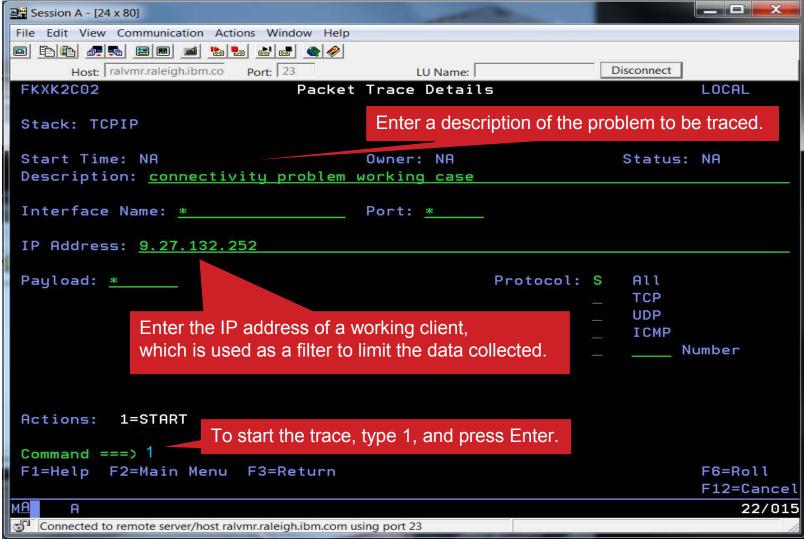








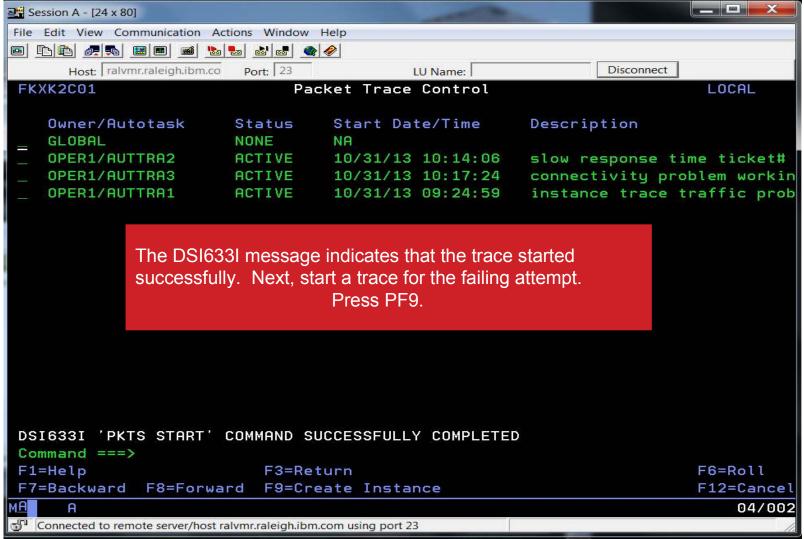






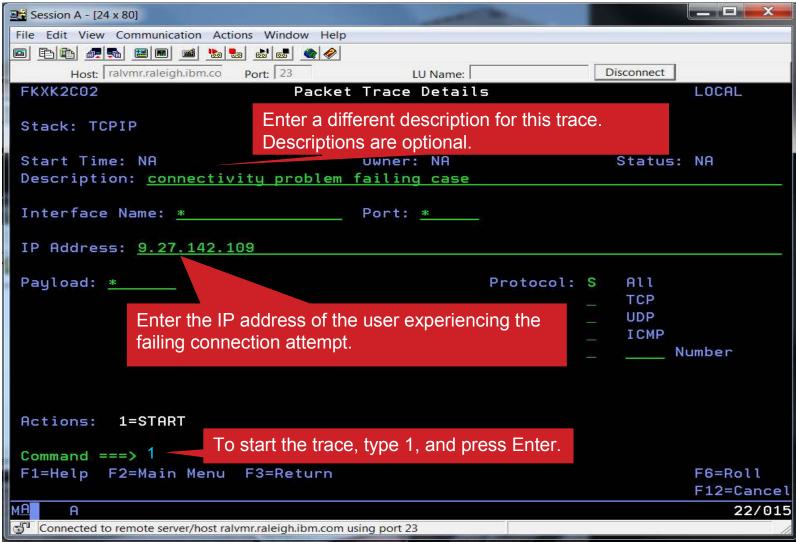






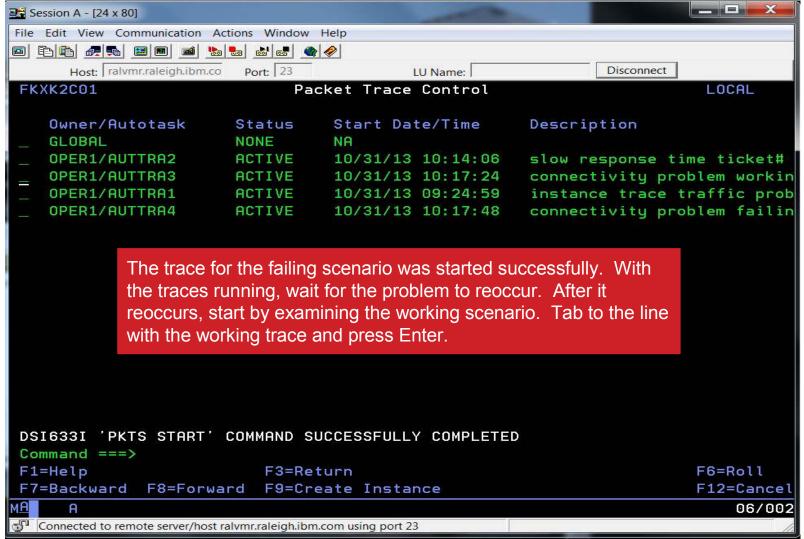






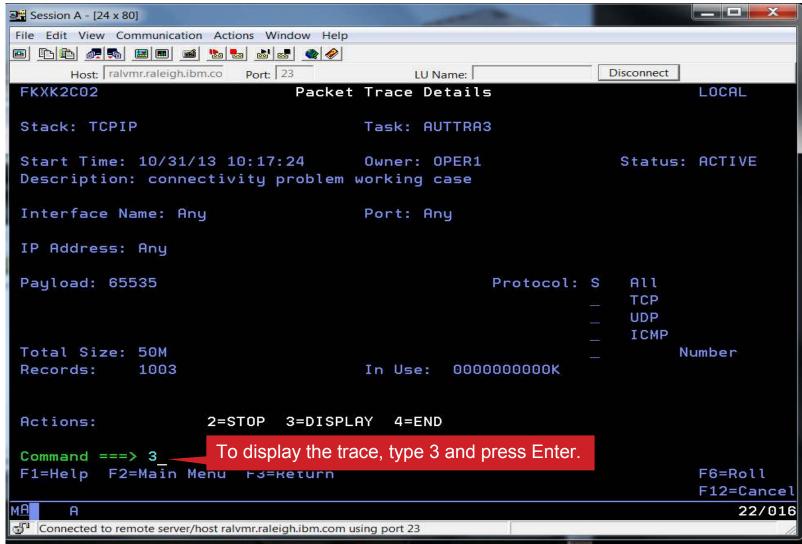














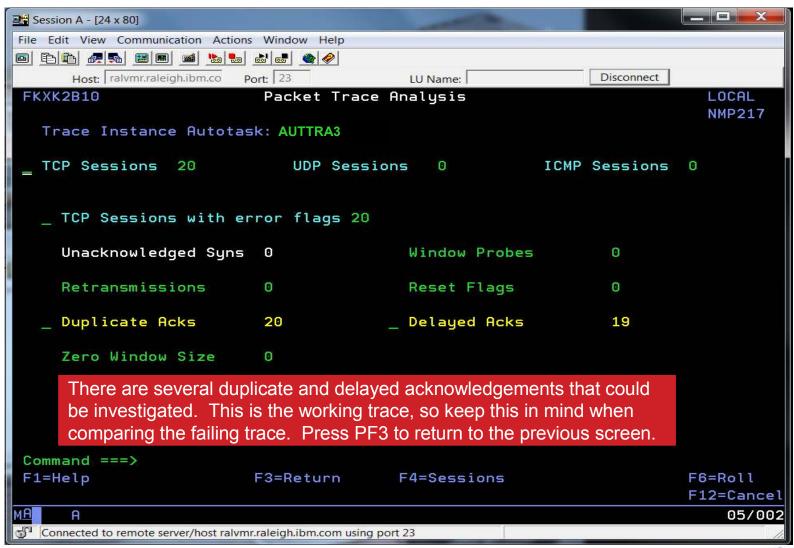
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Session A - [24 x 80]	= X			
File Edit View Communication Actions Window Help				
Host: ralvmr.raleigh.ibm.co Port: 23 LU Name:	Disconnect			
FKXK2A24 Display Packet Control	LOCAL			
Trace Instance Autotask: AUTTRA3	<u>N</u> MP217			
Stack: TCPIP In	fc Name: <u>ALL</u>			
LAddr: *				
RAddr: 9.27.132.252				
Portnum: <u>*</u> LPort: <u>*</u> RPort: <u>*</u> Pro				
Increase the MaxRecs value to 1000 seeing all of the records that are need see seeing all of the records that are need see see see see see see see see see	ded.			
MaxRecs: 1 1-Last 1000 Truncate: 65535	(Number)			
Press PF10 to analyze the trace and to determine if there are any issues to be concerned about.				
Command ===>				
F1=Help F3=Return F4=View Packets F	F5=Save Packets F6=Roll			
F8=Extended Opts	F10=Analyze F12=Cancel			
M <u>P</u> A	02/071			
Connected to remote server/host ralvmr.raleigh.ibm.com using port 23	11.			







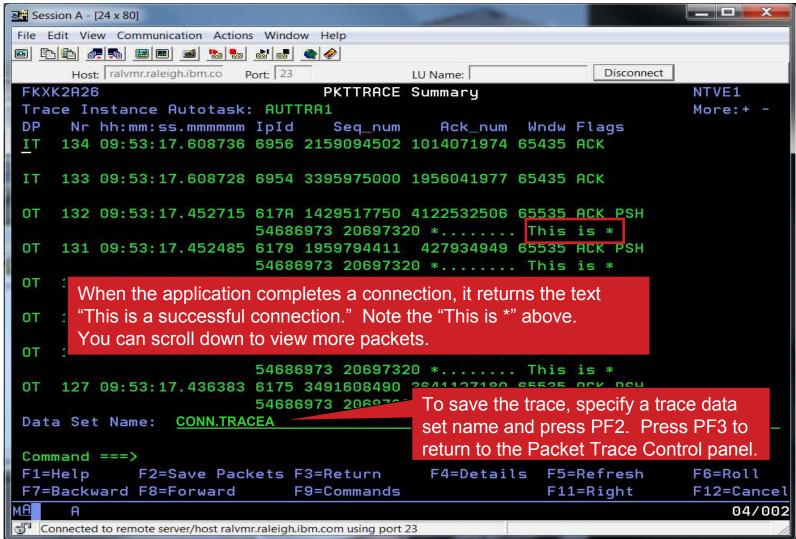




<b>≅</b> Session A - [24 x 80]	-	_ = ×
File Edit View Communication Actions Window Help		
Host: ralvmr.raleigh.ibm.co Port: 23	LU Name: Disconnect	
FKXK2A24 Displau Packet Co	ntrol	LOCAL
Trace Instance Autotask: AUTTRA3		NMP217
Stack: TCPIP	Infc Name: ALL	
LAddr: *		
		r <sub>eg</sub>
RAddr: 9.27.132.252		
Portnum: <u>*</u> LPort: <u>*</u> RPort	TCP	(default)
Start Time: * End Time: *	UDP ICMF OSPF	
		(Number)
MaxRecs: 1 1-Last <u>1000</u> Truncate 2-First	: 65535	
Data Set Name:	To learn more about the succ scenario, press PF4 to view the	
Command ===>		
	ew Packets F5=Save Packets	F6=Roll
F8=Extended Opts	F10=Analyze	F12=Cancel
MAN A		02/071
Connected to remote server/host ralvmr.raleigh.ibm.com using port 2	3	1.

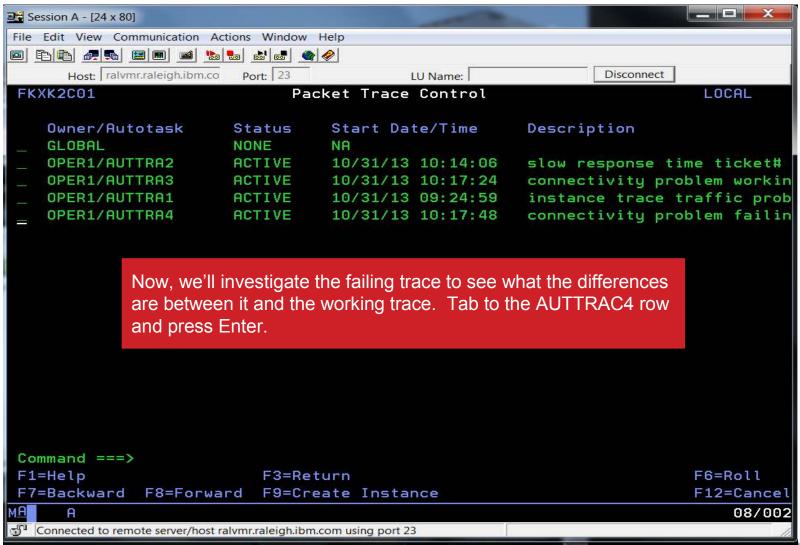








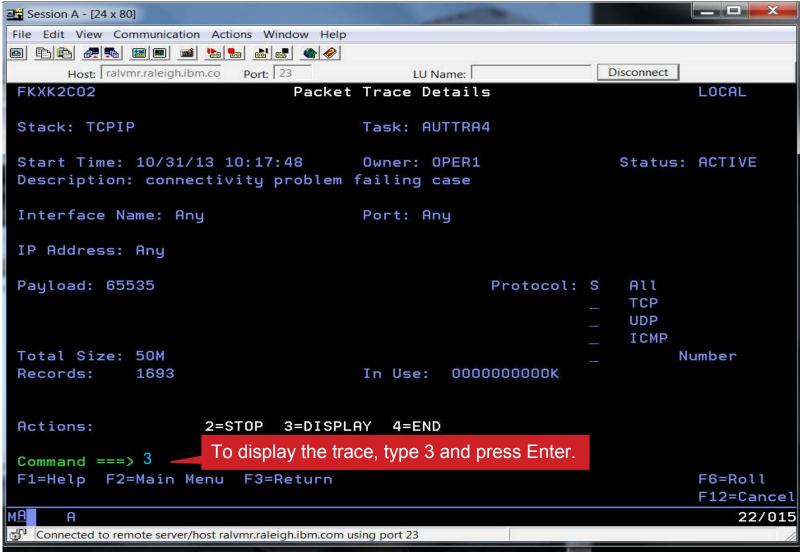






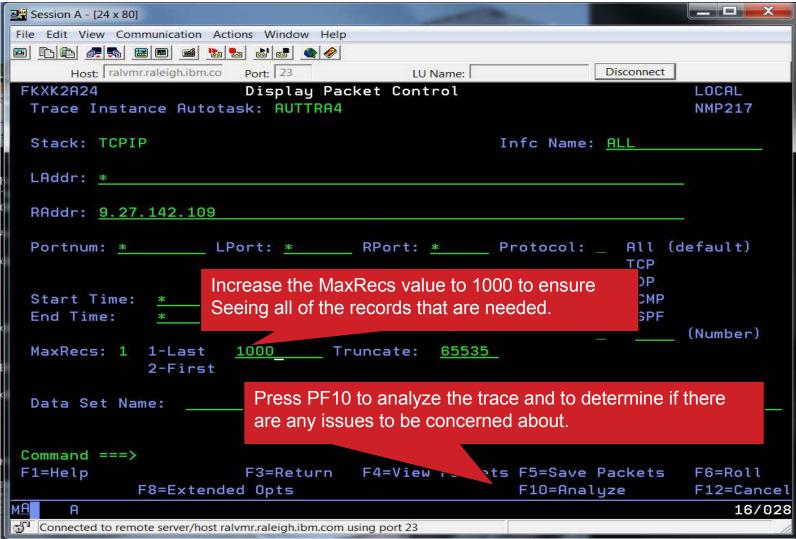






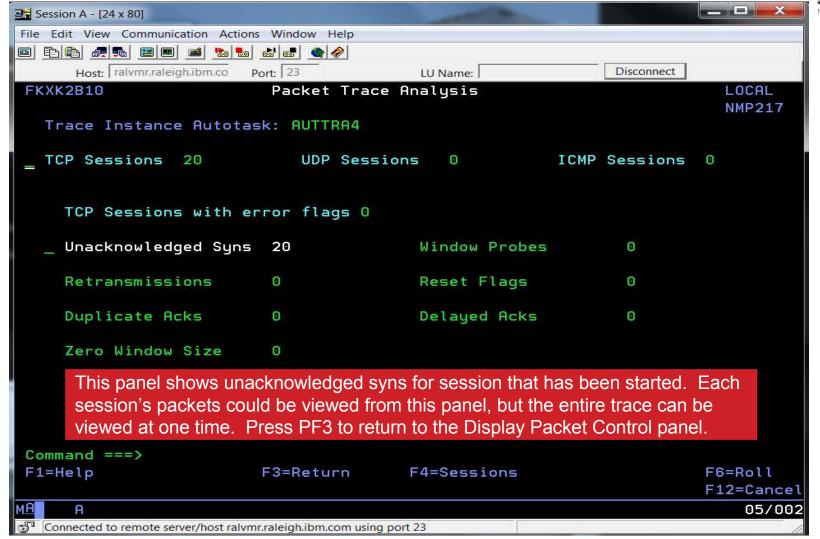












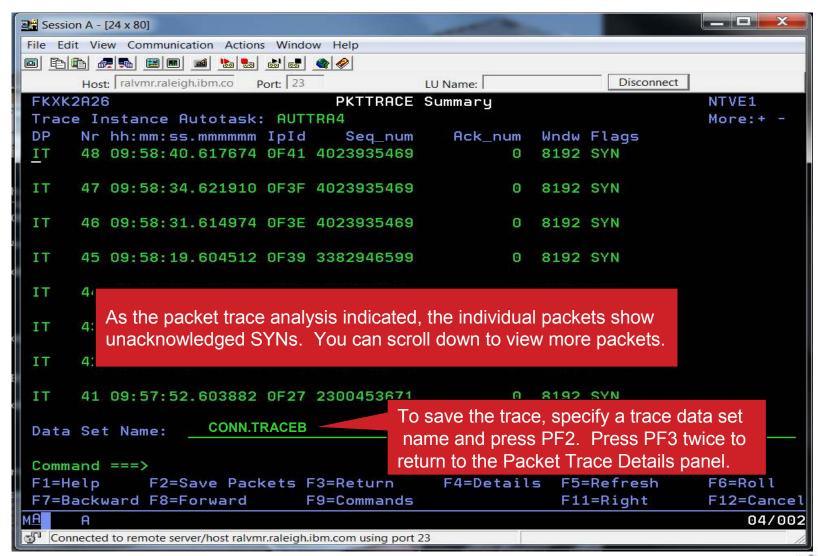




<b>2</b> Session A - [24 x 80]	and the last of th	_ = X
File Edit View Communication Actions Window Help		
Host: ralvmr.raleigh.ibm.co Port: 23 LU Na	me: Disconnect	
FKXK2A24 Display Packet Contro	ol	LOCAL
Trace Instance Autotask: AUTTRA4		NMP217
Stack: TCPIP	Infc Name: ALL	-
LAddr: <u>*</u>		
RAddr: <u>9.27.142.109</u>		_
Portnum: <u>*</u> LPort: <u>*</u> RPort: <u>*</u>	_ TCP	(default)
Start Time.	UDP ICMP	
Start Time: * End Time: *		
Ella Fille.	_ 3311	(Number)
MaxRecs: 1 1-Last <u>1000</u> Truncate: <u>(</u> 2-First	65535	
Data Set Name: Press PF4 to view the p	packets.	
Command ===>		
	Packets F5=Save Packets	
F8=Extended Opts	F10=Analyze	
MA A		16/028
Connected to remote server/host ralvmr.raleigh.ibm.com using port 23		1.











\_ D X Session A - [24 x 80] File Edit View Communication Actions Window Help Host: ralvmr.raleigh.ibm.co Port: 23 Disconnect LU Name: Packet Trace Details FKXK2C02 LOCAL Stack: TCPIP Task: AUTTRA4 Start Time: 10/31/13 10:17:48 Owner: OPER1 Status: ACTIVE Description: connectivity problem failing case Interface Name: Any Port: Any IP Address: Any Payload: 65535 Protocol: S All TCP UDP ICMP Total Size: 50M Number Records: 1693 In Use: 0000000000K Actions: 2=STOP 3=DISPLAY 4=END To stop the trace, type 2 and press Enter. Specifying 4 ends the Command ===> 2trace and frees the trace records – be sure that you are done. © F1=Help F2=Main Me rız=cancel 22/015



Connected to remote server/host ralvmr.raleigh.ibm.com using port 23



## **Scenario Summary**

- The packet trace comparison between the working and failing results provides enough information to continue to the next step of your diagnosis.
  - Is it the application?
  - Is it something with that specific TCP/IP request?





## **Packet Trace Summary**

- Packet trace can be controlled through the global trace or multiple instance traces
  - Support for multi-trace function shipped with z/OS Communications
     Server V2.1
  - Multiple traces can be started to trace specific parts of a network, eliminating extraneous data from data sets. Traces can be saved in CTRACE format for further analysis in IPCS.





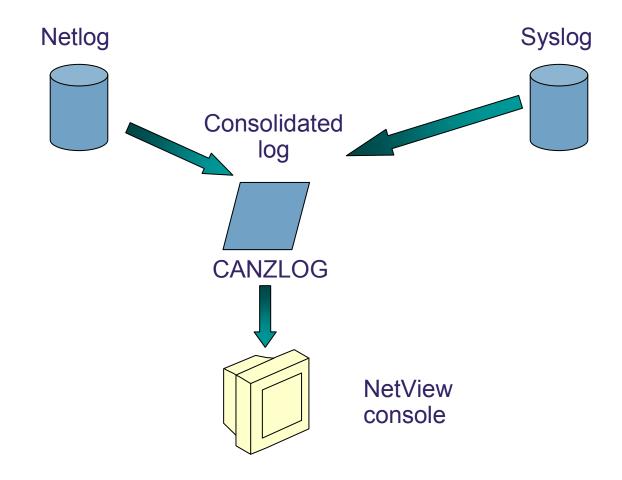
## **Agenda**

- Packet Trace
- Consolidated Logging





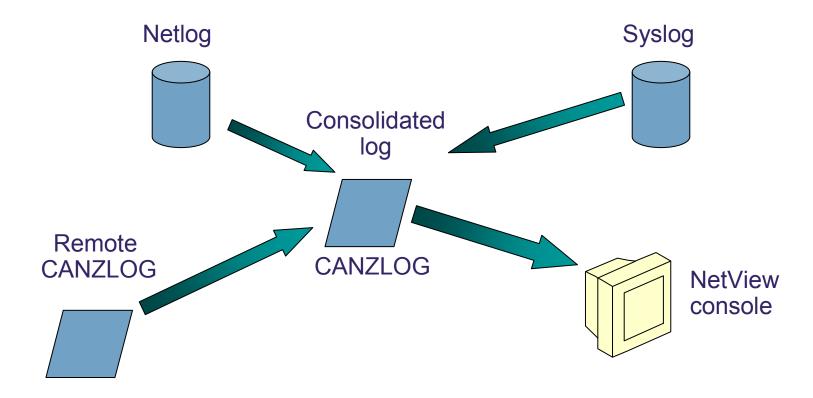
## Consolidated Log Browse with NetView V6.1



CANZLOG = Consolidated Audit, NetView and z/OS LOG



## Consolidated Log Browse with NetView V6.2



CANZLOG = Consolidated Audit, NetView and z/OS LOG

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## **Canzlog Enhancements**

- Recording of messages before NetView SSI initializes (Early IPL)
- Truncation of verbose MLWTOs
- Remote browse support
- New formatting options
- Relative time filter





## Early IPL messages

- Canzlog can be used to view the system log messages that were issued before the NetView subsystem was initialized. To enable these pre-initialization messages to be written to the Canzlog, add the statement below to the PROGxx member:
  - EXIT ADD EXITNAME(CNZ\_MSGTOSYSLOG) MODNAME(DSI4LCUI)
    - Note that DSI4LCUI resides in LPA
- The pre-initialization messages are logged with an address space type (ASTYPE) value of E.
  - Indicates how the address space was started (job type).
  - E specifies that the address space is a system address space that is started before the NetView subsystem is initialized.





## Scenario 1: Early IPL and Missing Symbolics

#### Scenario:

- A system symbolic is not getting set correctly. It should be in one of the IEASYMxx members, but the user diagnosing the problem is not familiar with the PARMLIB concatenation sequence.
- Additionally, the current syslog does not contains the messages from IPL

#### Resolution steps:

- Using automation on "early IPL" messages, the user can quickly see what the IEASYMxx members are, as well as in which PARMLIB data sets the member resides
- From that point, the contents of the IEASYMxx members can be reviewed and fixed appropriately.



## **Scenario 1: Configuration and Automation**



#### Automation Table segment

```
IF MSGID = 'IEE252I' & ACQUIRE('ASTYPE') = 'E' THEN
  EXEC(CMD('CKSYMS') ROUTE(ONE ?PRIMARY));
```

Simple REXX exec called CKSYMS: We will look for "System" symbolic member is ..." in Canzlog after NetView has initialized.

```
/* REXX exec for IPL automation */
inMSGTxt = MSGSTR()
mymember = strip(word(inMSGTxt,2))
mydataset = strip(word(inMSGTxt,5))
if substr(mymember. 1.6) = 'IEASYM' then
      'System symbolic member is 'mymember 'in data set 'mydatase
```

#### **MVSPARM** definitions in CNMSTGEN

```
MVSPARM.DEFAUTH = MASTER
MVSPARM.OperRecyBrdcst = YES
MVSPARM.ActionDescCodes = 1 2 11
MVSPARM.Msg.Automation = Yes
MVSPARM.Msg.Automation.MaxAge = 180
MVSPARM.Msg.Automation.Oldtag = *NONE*
MVSPARM.Cmd.Designator = %
MVSPARM. Cmd. Scope = 1
```

MaxAge indicates the disposition of MVS messages that are marked for automation while the NetView program or the subsystem router task (CNMCSSIR) is inactive. If the age of a gueued message exceeds the value of the MaxAge statement, the message is not submitted for automation by the NetView program.

## Scenario 1: IPL Time



#### Output from D IPLINFO command

```
NetView V6R2 - NM
                           Tivoli NetView
                                            NTVAF NETOP1
           D IPLINFO
               (00,0K,01,L)
               (00,0K,01) (OP)
      DEVICE: ORIGINAL (00404) CURRENT (00404)
    DEVICE: ORIGINAL(00400) CURRENT(00400) VOLUME(G2101F)
```



### Scenario 1: LOCATE time frame



```
Canzlog MVS (z/OS) messages FILTER=MVSMSGS
                                                  03/12/14 11:48:34 -- 11:49:04
11:48:34 IEE114I 11.48.34
          JOBS
                                               INITS
                                                       ACTIVE/MAX VTAM
                                                                            OAS
         00003
                  00016
                           00000
                                      00031
                                               00010
                                                        00000/00300
                                                                           00016
          LLA
                  LLA
                                     NSW
                                                      VLF
                                                                         NSW
          JES2
                   JES2
                                     NSW
                                             VTAM
                                                      VTAM
                            IEFPROC
                                                                VTAM
                                                                         NSW
          RACE
                   RACF
                                     NSW
                                                                         OWT
                            RACE
                                             TSO
                                                      TSO
                                                                STEP
         BNH914I Long message truncated by 7 lines - use SHOWTEXT
11:48:34 D TCPIP, TN3270, TELNET, PROF
11:48:34 EZZ6060I TN3270 PROFILE DISPLAY 274
                                                    TIMERS
                                                            MISC
           PERSIS
                                       SECURITY
          (LMTGCAK)(OPATSKTOSSHRT)(DRF)(PCKLECXN2)
                    ***TSBTO***RT EC*
                                        BB*****
         ---- PORT:
                        23 ACTIVE
                                             PROF: CURR CONNS:
         BNH914I Long message truncated by 9 lines - use SHOWTEXT
11:49:04 IEA630I OPERATOR NETO1NM NOW ACTIVE, SYSTEM=NMPIPL47, LU=NTAFL701
11:49:04 D IPLINFO
                  11.49.04 IPLINFO DISPLAY 277
                                                  Issue LOCATE command a
                        MTLSHARE = N
                                                  few seconds before IPL.
          IEASYM LIST = (00.0K,01.L)
         BNH914I Long message truncated by 3 lines - use SHOWTEXT
TO SEE YOUR KEY SETTINGS ENTER 'DISPEK'
CMD==> locate 03/12/14 11:46:00
```



## Scenario 1: IPL messages in Canzlog



```
MVS (z/OS) messages FILTER=MVSMSGS
                                                   . IODF DEVICE NL 1.We receive messages
                                                                     from the beginning of the IPL.
     11:46:40 IEA009I SYMBOLIC DEFINITIONS WILL BE READ FROM:
                                                                     2. REXX exec CKSYMS is
                                                                     driven from the automation
                                                                     message IEE252I.
     11:46:40 IEA008I SYSTEM PARMS FOLLOW FOR z/OS 02.01.00 HBB7
                       IEASYS00
     TO SEE YOUR KEY SETTINGS, ENTER 'DISPFK'
38<sub>38</sub> c CMD==>

    in Anaheim
```

### Scenario 1: Results of Automation



### Messages from CKSYMS exec

```
MVS & local NetView messages FILTER=LOG 03/12/14
11:47:59 EZL110I NVPOLICY BEING USED FOR THE CONFIGURATION
11:47:59 EZL601I POLICY FILE EZLCFG01 NOT LOADED, AON TOWER NOT ENABLED
11:47:59 System symbolic member is IEASYM00 in data set SYS1.PARMLIB
                BEGIN PROCESSING NMCSTATUS POLICY
                                                                 NMCSTATUS
```





### Scenario 2 – Text hidden due to truncation

- Scenario:
  - User does a "find" command in Canzlog for a string and the user is sent to a "truncated" message entry, but cannot see the search string.
- Resolution Steps:
  - Use the SHOWTEXT (PF2) function to see the entire message.



Scenario 2: Find message string



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```
Canzlog MVS & local NetView messages FILTER=LOG 03/12/14 23:38:33 -- 23:39:41
23:38:33 IEE114I 23.38.33 2014.071 ACTIVITY 022
                  M/S
                          TS USERS
                                               INITS
                                                       ACTIVE/MAX VTAM
                                                                           OAS
          JOBS
                                      SYSAS
                  00016
                           00001
                                      00031
         00003
                                               80000
                                                        00001/00300
                                                                          00014
          RACE
                   RACE
                            RACE
                                    NSW S TSO
                                                      TSO
                                                               STEP
                                                                        OWT S
        BNH914I Long message truncated by 8 lines - use SHOWTEXT
23:38:33 D TCPIP, TN3270, TELNET, PROF
23:38:33 EZZ6060I TN3270 PROFILE DISPLAY 024
          PERSIS FUNCTION
                                   DIA SECURITY
                                                   TIMERS
                                                            MISC
          (LMTGCAK) (OPATSKTOSSHRT) (DRF) (PCKLECXN2) (IPKPSTS) (SMLT)
          LM**C** ***TSBTO***RT EC* BB******
                        23 ACTIVE
         ---- PORT:
                                             PROF: CURR CONNS:
        BNH914I Long message truncated by 9 lines - use SHOWTEXT
23:38:44 BNH604I CONNECT REQUEST FAILED, ERRNO = 60
23:38:44 CNM493I AQNSACTA: #0000153: CNMEXCON TYPE=CHCKADAT
23:38:44 CNM493I AONSACTA : #0000153 : AONE1000
23:38:44 BNH741I REMOTE OPERATIONS FOR USIBMNT.NTVE6 TERMINATED
23:38:44 CNM493I AQNSACTA : #0000128 : AQNSTORP
23:39:19 DW0369I CORRWAIT STAGE (370101) HAD RETURN CODE 8.
23:39:19 BNH719E UNABLE TO CONNECT TO REMOTE HOST NTVE6TST.
23:39:19 BNH558E UNABLE TO CONTACT MONPLEX1 USING NTVE6TST
23:39:19 BNH654I COMMON GLOBAL VARIABLE CNMSTYLE.RMTSYN.JOE HAS INVALID VALUE:
23:39:20 BR LOG
23:39:41 BR LOG
TO SEE YOUR KEY SETTINGS, ENTER 'DISPFK'
CMD==> f ipsecurity prev
```

## Scenario 2: Found message is truncated

```
Canzlog MVS & local NetView messages FILTER=LOG 03/12/14 19:13:52 -- 19:15:19
19:13:52 EZD0101I NETSTAT CS V2R1 TCPIP 064
         TCP CONFIGURATION TABLE:
                             00065536 DEFAULTSNDBUFSIZE: 00065536
         DEFAULTROVBUESIZE:
         DEFLTMAXRCVBUFSIZE: 00262144 SOMAXCONN:
                                                          0000001024
         MAXRETRANSMITTIME:
                             120.000
                                       MINRETRANSMITTIME: 0.500
                             0.125
        ROUNDTRIPGAIN:
                                       VARIANCEGAIN:
                                                          0.250
        BNH914I Long message truncated by 77 lines - use SHOWTEXT
19:14:02 BR LOG
19:14:19 DW0369I CORRWAIT STAGE (370101) HAD R
                                                  To display the entire
19:14:19 BNH719E UNABLE TO CONNECT TO REMOTE
                                                  message text, place
19:14:19 BNH558E UNABLE TO CONTACT MONPLEX1 USING
                                                  cursor anywhere within
                                                                           UE:
19:14:19 BNH654I COMMON GLOBAL VARIABLE CNMSTYLE
                                                  message text and press
19:14:19 IEC070I 209-220, T620EENV, T620EENV, DSILOG
         IEC070I VSAMC620.DSILOGP,VSAMC620.DSILOG
                                                  PF2 (SHOWTEXT).
19:14:19 DW0520I DSILOG : VSAM DATASET 'CLOSE'
                                               COMPLETED, DDNAME = 'DSILOGP' RETU
19:14:19 DSI556I DSILOG : VSAM DATASET 'CLOSE' COMPLETED, DDNAME = 'DSILOGP' RETU
19:14:19 DSI556I DSILOG : VSAM DATASET 'OPEN' COMPLETED, DDNAME = 'DSILOGS' RETUR
19:14:19 DSI547I DSILOG : SECONDARY VSAM DATA SET IS NOW ACTIVE
19:14:43 BNH604I CONNECT REQUEST FAILED, ERRNO = 60
19:14:43 CNM493I AQNSACTA: #0000153: CNMEXCON TYPE=CHCKADAT
19:14:43 CNM493I AQNSACTA : #0000153 : AQNE1000
19:14:43 BNH741I REMOTE OPERATIONS FOR USIBMNT.NTVE6 TERMINATED
19:14:43 CNM493I AQNSACTA : #0000128 : AQNSTORP
19:15:19 DW0369I CORRWAIT STAGE (370101) HAD RETURN CODE 8.
TO SEE YOUR KEY SETTINGS, ENTER 'DISPFK'
CMD==>
```

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## Scenario 2: View truncated message

```
CNMKWIN Full message text, CZID=23732
                                                     LINE 0 OF
                                               All 83 lines are now displayed.
TCP CONFIGURATION TABLE:
                                               Where is IPSECURITY?
                               DEFAULTSNDBUFS:
DEFAULTRCVBUFSIZE:
                    00065536
DEFLIMAXRCVBUFSIZE: 00262144
                               SOMAXCONN:
                                                   0000001024
MAXRETRANSMITTIME:
                    120.000
                               MINRETRANSMITTIME: 0.500
ROUNDTRIPGAIN:
                    0.125
                                                   0.250
                               VARIANCEGAIN:
VARIANCEMULTIPLIER: 2.000
                               MAXSEGLIFETIME:
                                                   30.000
DEFAULTKEEPALIVE:
                    00000120
                               DELAYACK:
                                                   YES
RESTRICTLOWPORT:
                    YES
                               SENDGARBAGE:
                                                   NO
TCPTIMESTAMP:
                    YES
                               FINWAIT2TIME:
                                                   0600
TTLS:
                    NO
                               EPHEMERALPORTS:
                                                   01024-65535
SELECTIVEACK:
                    NO
                                                   060
                               TIMEWAITINTERVAL:
DEFLTMAXSNDBUFSIZE: 00262144
                               RETRANSMITATTEMPT: 015
CONNECTTIMEOUT:
                    0075
                               CONNECTINITINTVAL: 3000
KEEPALIVEPROBES:
                    10
                               KAPROBEINTERVAL:
                                                   075
NAGLE:
                    YES
                               QUEUEDRTT:
                                                   020
FRRTHRESHOLD:
                    0003
UDP CONFIGURATION TABLE:
DEFAULTRCVBUFSIZE: 00065535
                              DEFAULTSNDBUFSIZE: 00065535
CHECKSUM:
                   YES
                              EPHEMERALPORTS:
                                                  01024-65535
RESTRICTLOWPORT:
                              UDPOUEUELIMIT:
                                                  YES
                   YES
IP CONFIGURATION TABLE:
FORWARDING: YES
                   TIMETOLIVE: 00064 RSMTIMEOUT:
                                                     00060
TO SEE YOUR KEY SETTINGS, ENTER 'DISPFK'
CMD==>
```

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### Scenario 2: View truncated message cont.



```
CNMKWIN Full message text, CZID=23732
                                                    LINE 23 OF 83
EZD0101I NETSTAT CS V2R1 TCPIP 064
FORWARDING: YES
                   TIMETOLIVE: 00064
                                       RSMTIMEOUT:
                                                     00060
IPSECURITY: NO
ARPTIMEDUT: 01200
                   MAXRSMSIZE: 65535
                                       FORMAT:
                                                    LONG
                                       DOUBLENOP:
                                                    NO
IGREDIRECT:
                   SYSPLXROUT: NO
STOPCLAWER: NO
                   SOURCEVIPA: NO
MULTIPATH:
                   PATHMTUDSC: NO
                                       DEVRTRYDUR:
                                                     0000000000
DYNAMICKEF: NO
ODIOACCEL:
IODIOROUTE: NO
TCPSTACKSRCVIPA: NO
CHECKSUMOFFLOAD: YES
                         SEGOFFLOAD: NO
IPV6 CONFIGURATION TABLE:
               YES
FORWARDING:
                    HOPLIMIT:
                                 00255
                                        IGREDIRECT:
                                                     NO
               NO
SOURCEVIPA:
                    MULTIPATH:
                                        ICMPERRLIM:
                                 NO
                                                      00003
IGRTRHOPLIMIT: NO
IPSECURITY: NO
DYNAMICXCF: NO
TCPSTACKSRCVIPA: NO
TEMPADDRESSES: NO
CHECKSUMOFFLOAD: YES
                         SEGOFFLOAD: NO
SMF PARAMETERS:
TYPE 118:
  TCPINIT:
                00
                     TCPTERM:
                                    00
                                         FTPCLIENT:
                                                        00
TO SEE YOUR KEY SETTINGS, ENTER 'DISPFK'
CMD==>
```



## **Canzlog Remote Browse**

- The updated BR command can accept a remote domain, a remote alias, a Canzlog group, or a sysplex name.
- The BR command can browse a member from a remote domain, such as the CNMSTYLF member
- A Canzlog group, a set of arbitrary NetView domains in the enterprise, can be defined in the CNMSTYLE member
- The Canzlog panel has been updated to accept a remote Canzlog browse request (Target)
- A browse request for a particular sysplex might not require RMTSYN statements or the ENT.GROUP statement to be defined in the CNMSTYLE member. If you are using NetView's XCF group function, that will be used to browse domains in a sysplex.





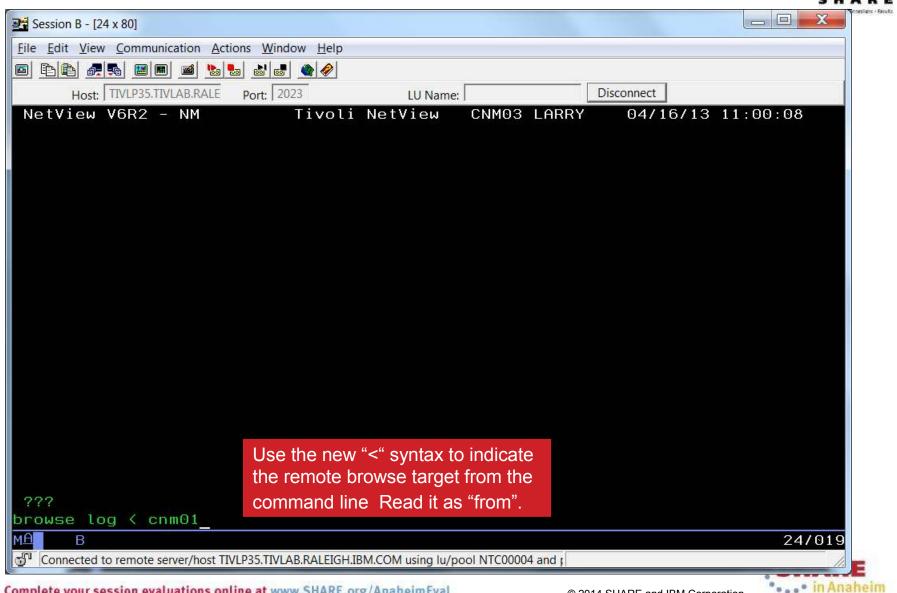
## **Canzlog GROUP browse**

- The Canzlog BR command can be used to browse a Canzlog from multiple domains
  - The messages from all the domains are consolidated into one log
  - The messages in the log are sorted by time
  - Use the new DEFAULTS/OVERRIDE CZFORMAT command to specify ORIGIN in front of each message
  - Additional filter options can be specified
  - A filter name, if used, is resolved on the local side before making the remote request



## Canzlog: browse remote log





## Canzlog: Remote Log Browsing



	CNMKCZLG	Specify Canzlog	Filt	ers				
	From: For:	1D OH OM	To:		04/08/13 14:50:57			
	roi. Tag:	ID OH OH	MSGI	'n.				
	Jobname:		Jobi					
	ASID:		ASTu					
	Console:			e Code:				
	Domain:		Syst	em ID:				
	AutoTok:		Desc	: Code:				
	AuthUser:			Group:				
	Opid:		UCHA					
	CHKey:		WTOK	(ey:				
	lext - case	e sensitive; faster search:						
Text - case insensitive; slower search:								
Target: Cnm01_ Use the Target field in the Canzlog								
	Name:	Remark:		Filters pa	inel.			
TO SEE YOUR KEY SETTINGS, ENTER 'DISPFK' CMD==>								

Target: a remote NetView instance. Can be:

- a NetView domain name
- Group name
- Sysplex name
- an alias defined using the RMTSYN and RMTALIAS statements in stylesheet.

  Complete your session evaluations online at www.SHARE.org/AnaheimEval

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## **Scenario 3: DDVIPA Configuration Changes**

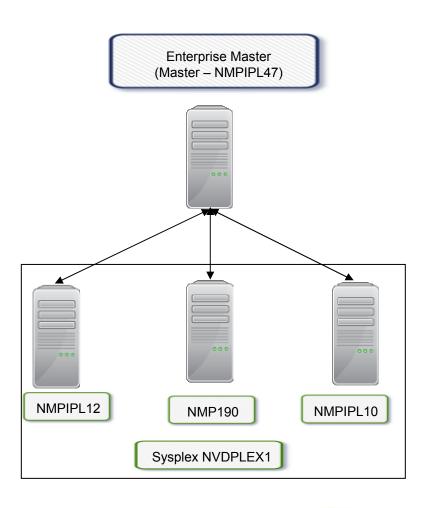


#### Scenario:

 All 3 systems in PLEX1 need to add a Sysplex Distributor. The changes are all scheduled to occur at the same time, 2 of the new Sysplex Distributor IP addresses are not working.

#### Resolution steps:

- Using the Canzlog remote browse GROUP function from an enterprise master NetView, see why the DDVIPA configuration changes did not work on all 3 systems in the sysplex.
- Also, take advantage of new CZFORMAT option (ORIGIN) and the new relative time filter.





### Scenario 3: GROUP information



#### NMPIPL47 RMTSYN and ENT.GROUP definitions

```
RMTSYN.IP.NTV7A = NMPIPL12.TIVLAB.RALEIGH.IBM.COM/4022 ON USIBMNT RMTALIAS.NTV7ATST = IP.NTV7A RMTSYN.IP.NTV74 = NMP190.TIVLAB.RALEIGH.IBM.COM/4022 ON USIBMNT RMTALIAS.NTV74TST = IP.NTV74 RMTSYN.IP.NTV70 = NMPIPL10.TIVLAB.RALEIGH.IBM.COM/4022 ON USIBMNT RMTALIAS.NTV70TST = IP.NTV70 RMTSYN.IP.NTVE6 = NMPIPL30.TIVLAB.RALEIGH.IBM.COM/4022 ON USIBMNT RMTALIAS.NTVE6TST = IP.NTVE6 SMTSYN.IP.NTVE6TST SMTSYN.IP.NTVE6TST SMTSYN.IP.NTVF6TST SMTSYN.IP.NTVE6TST SMTSYN.IP.NTVENTALIAS.NTVE6TST SMTSYN.IP.NTVE6TST SMTSYN.IP.NTVENTALIAS.NTVE6TST SMTSYN.IP.NTVENTALIAS.NTVE6TST SMTSYN.IP.NTVENTALIAS.NTVENTALIAS.NTVE6TST SMTSYN.IP.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.NTVENTALIAS.N
```

### **QRYGROUP** Output

```
NetView V6R2 - NM Tivoli NetView NTVAF NETOP1

* NTVAF QRYGROUP
C NTVAF
CNM100I The list of groups stored in COMMON
PLEX1

* NTVAF QRYGROUP PLEX1
C NTVAF
CNM100I The list of members stored in PLEX1
NTV7ATST
NTV70TST
NTV74TST
```

ENT.GROUP.groupname defines a group of local or remote NetView instances. You can use a group to define a logical cluster of NetView instances; you can then use the group with the BROWSE command to see data from all NetView instances in the cluster. A group can include specific NetView domains, sysplexes, and other groups.



### **Scenario 3: Relative Time**



CNMKCZLG	Specify Can	zlog Filters						
From: For: Tag: Jobname: ASID: Console: Domain: AutoTok: AuthUser: Opid: CHKey: Text - case	OD OH 1M	UCHARS: WTOKey:	'03/11/14 23:16:00'					
Text - case insensitive; slower search:  Timer for OBEYFILES to add new sysplex distributors was								
Target: Name:	plex1 Remark:	set to run at 23:15:00 on 03/11/14. Immediate results are						
TO SEE YOUR KEY SETTINGS, ENTER 'DISPFK' CMD==>								

For on this panel specifies the duration of the span of time to be included. Use the For field if you want to specify the time span in terms of duration rather than specifying the the start and end times.



### **Scenario 3: Filtered Results**



```
Canzlog Target=PLEX1 FROM='03/11/14 23:11:00' TO= 03/11/14 23:15:00 -- 23:15:09
                  23:15:00 EZZ00601 PROCESSING COMMAND: VARY TCPIP, TCPIP, OBEYFILE, USER. PARMLIB (DDVIPADD)
                  23:15:00 EZZ03001 OPENED OBEYFILE FILE 'USER.PARMLIB(DDVIPADD)'
        T620EENV 23:15:00 IEA630I OPERATOR NETO2NM NOW ACTIVE, SYSTEM=NMP190 , LU=NT74L701
                  23:15:00 EZZ0309I PROFILE PROCESSING BEGINNING FOR 'USER.PARMLIB(DDVIPADD)'
         T620EENV 23:15:00 V TCPIP, TCPIP, OBEYFILE, USER. PARMLIB (DDVIPADD)
                  23:15:00 EZZ0316I PROFILE PROCESSING COMPLETE FOR FILE 'USER.PARMLIB(DDVIPADD)'
MPIPL10 TCPIP
                  23:15:00 EZZ8312I VIPA 201.2.10.10 MAY NOT BE CHANGED WITH VIPADEFINE
                  23:15:00 EZZ00601 PROCESSING COMMAND: VARY TCPIP, TCPIP, OBEYFILE, USER. PARMLIB (DDVIPADD)
NMP190
         TCPIP
NMP190
         TCPIP
                  23:15:00 EZZ0300I OPENED OBEYFILE FILE 'USER.PARMLIB(DDVIPADD)'
NMP198
        TCPIP
                  23:15:00 EZZ0309I PROFILE PROCESSING BEGINNING FOR 'USER.PARMLIB(DDVIPADD)'
NNP198
        TCPIP
                  23:15:00 EZZ0316I PROFILE PROCESSING COMPLETE FOR FILE 'USER.PARMLIB(DDVIPADD)'
        TCPIP
NMP198
                  23:15:00 EZZ0331I NO HOME ADDRESS ASSIGNED TO LINK TOVTAM
        TCPIP
                  23:15:00 EZZ0053I COMMAND VARY OBEY COMPLETED SUCCESSFULLY
NMPIPL12 T620EENV 23:15:00 IEA630I OPERATOR NETO1NM1 NOW ACTIVE, SYSTEM=NMPIPL12, LU=NT7AL702
NMPIPL12 T620EENV 23:15:00 V TCPIP, TCPIP, OBEYFILE, USER. PARMLIB (DDVIPADD)
NMPIPL12 TCPIP
                  23:15:00 EZZ0060I PROCESSING COMMAND: VARY TCPIP, TCPIP, OBEYFILE, USER. PARMLIB(DDVIPADD)
                  23:15:00 EZZ0300I OPENED OBEYFILE FILE 'USER.PARMLIB(DDVIPADD)'
NMPIPL12 TCPIP
                  23:15:00 EZZ0309I PROFILE PROCESSING BEGINNING FOR 'USER.PARMLIB(DDVIPADD)'
NMPIPL12 TCPIP
                  23:15:00 EZZ0316I PROFILE PROCESSING COMPLETE FOR FILE 'USER.PARMLIB(DDVIPADD)'
NMPTPI 12 TCPTP
                  23:15:00 EZZ0053I COMMOND VORY OBEY COMPLETED SUCCESSEULTY
                  23:15:00 EZZ8312I VIPA 201.2.10.203 MAY NOT BE CHANGED WITH VIPADEFINE
        AUTOTCPS 23:15:09 CNM493I CNMSDVCG : #0000030 : CNME8265 AUTO
TO SEE YOUR KEY SETTINGS, ENTER 'DISPFK'
CMD==>
```





## **Summary**

- CANZLOG brings together syslog and netlog messages, from local and/or remote systems
- Very robust, flexible filtering
  - Any message attribute or combination
    - "What happened over the weekend?"
    - "Show me all the IEF123 messages."
    - "I need to see all the ABC\* and DEF\* messages from jobs JOB1 and JOB2 during first shift last Tuesday with descriptor code 2."
  - Scope
    - Common: available to all operators (subject to authorization check)
    - Task: available only to operator who defined them
  - Actions
    - Save: save filter to storage and on disk
    - Replace: replace an existing filter in storage and on disk
    - Delete: delete filter from storage and disk
- Seamless archiving and retrieval
- Export to IBM Service





### **More Information**

- NetView website http://www.ibm.com/software/tivoli/products/netview-zos/
- NetView customer forum <u>http://tech.groups.yahoo.com/group/NetView/</u>
- NetView wiki

https://www.ibm.com/developerworks/mydeveloperworks/wikis/home?lang =en#/wiki/Tivoli+System+z+Monitoring+and+Application+Management/pa ge/Tivoli+NetView+for+zOS

NetView media gallery

https://www.ibm.com/developerworks/mydeveloperworks/wikis/home?lang =en#/wiki/Tivoli+System+z+Monitoring+and+Application+Management/pa ge/Media+Gallery+for+Tivoli+NetView+for+zOS

NetView documentation

https://www.ibm.com/developerworks/wikis/display/tivolidoccentral/Tivoli+NetView+for+zOS



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- Problem Solving Scenarios with NetView for z/OS
- Session # 14926
- QR Code:





# Tivoli® System z® Sessions at SHARE



#### **Monday**

3:00 14872: z/OS® Communications Server and NetView® for z/OS DVIPA (Dynamic Virtual IP Addressing) Management Grand Ballroom, Salon H

#### **Tuesday**

9:30 14907: New IBM Automation Control for z/OS - Replacing Manual Scripting with Policies Orange County, Salon 2

#### Wednesday

#### **Thursday**

9:30	14926: Problem Solving Scenarios with NetView for z/OS	Grand Ballroom, Salon K			
3:00	14871: What's New(er) for z/OS Network Performance Monitoring with				
	OMEGAMON: 5.1.1 releases	Grand Ballroom, Salon K			
4:30	15273: OMEGAMON Thresholds, Profiles, and User Interfaces	Orange County, Salon 1			

#### **Friday**

9:30 14904: System Automation for z/OS: Beginner's Hands-On Lab

Platinum Ballroom, Salon 7



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