Hidden Gems in *CA NetMaster for TCP/IP*: Come Explore where You May Have Missed Them

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Session 17790

Agenda

- WebCenter
- Traffic Stats vs /Perf
- Event Detectors
- SmartTrace
- Growth Tracker
- Creating Emails
- Performance Charts and Graphs
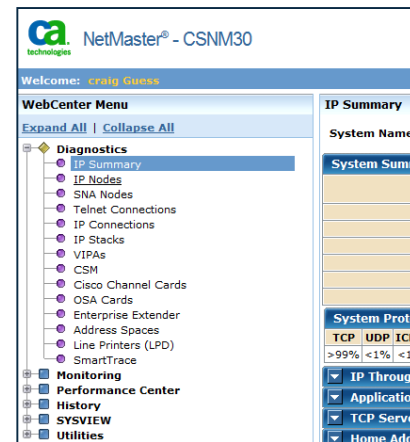- Integration to OPS/MVS, SYSVIEW

WebCenter

WebCenter

- No need for external web servers
- Easily configured and instantly available (/PARM..Interfaces/WebCenter)
- Can be secured with AT-TLS if required
- Can control access to WebCenter menu options programmatically by using the variables in the CC2DEXEC($W3MH01X)

Flexibility

Traffic Stats vs /Perf

Traffic Summary - /IPSUM
Real-time information

- Real-time information on everything NetMaster is monitoring
  - Provides a way to view lots of data at a glance.

Performance Overview - /Perf
Longer periods of time

```
CSNM9----------------- Performance Overviews Menu -------------------CA11
Command ===>                                            Scroll ===> CSR

                                  S=Show Performance Overview from CA11
____   Business Views          Business Applications
____   Applications            Telnet Applications
____                           Address Spaces
____                           CSM
____   Sessions and Connections Stack IP Connections
____                           Home Addresses
____                           Network IP Connections
____                           Stack Telnet Connections
____                           Network Telnet Connections
____                           Stack FTP Connections
____                           FTP Users
____                           Network FTP Connections
____   Protocols and Ports     Stack IP, TCP, and UDP
____                           Ports
____   IP Networking           Stack IP, TCP, and UDP
____                           IP Nodes
____   Logical Devices         Enterprise Extender
____                           Enterprise Extender Connections
____                           APPN/HPR
____                           VIPA
____   Devices and Links       Stack Network Interfaces
____                           OSA Cards
____                           Cisco Channel Cards        (not monitored)
____                           NCPs
```

Performance Overview
Review up to 10 weeks of data

- Allows one to review Hourly, Daily and Weekly information
  - Weekly Interval List, can drill down to see Days and hourly

```
CSNM9-------------- TCP/IP Performance : Baseline List ----------------CA11
Command ===>                                                   Scroll ===> CSR

     Performance Data .... Connection Workload, by Application
     Resource ............ Business Application $Bank-FX

                             S=Samples H=Hours D=Days W=Weeks B=BLvalues
                         Last  Start   HourOfDay HourOfDay  DayOfWeek
     Attribute   Stack   Summary Hour   Baseline   % Diff   Baseline
___  ConActive   TCPIP11  18.2  12:00    10.8       +68%      12.2
___  ConBytes    TCPIP11  17.9M 12:00     8.1M     +120%     367.4M
 w   ConConnects TCPIP11  737.0 12:00     1.0K      -28%      2.4K
     **END**
```

```
          CSNM9---------------- TCP/IP : Weekly Interval List ---------------------
          Command ===>                                           Scroll ===> CSR

               Performance Data .... Connection Workload, by Application
               Resource ID ......... Business Application $Bank-FX, Stack TCPIP11
               Attribute ID (Type)   ConConnects (counter)
               Description ......... Connections for application
               Period .............. Last 10 weeks

                                      D=Show days of this week  H=Show hours
               Week            Date and Time       Hourly Total Daily Total
____           This week    Fri 01-Aug-2014 13:00       5.2K       25.5K
____           1 week ago   Fri 25-Jul-2014 13:00       4.5K       48.6K
____           2 weeks ago  Fri 18-Jul-2014 13:00       4.5K       19.2K
____           3 weeks ago  Fri 11-Jul-2014 13:00       80.0       57.0K
____           4 weeks ago  Fri 04-Jul-2014 13:00       80.0       14.2K
____           5 weeks ago  Fri 27-Jun-2014 13:00       4.7K       33.3K
____           6 weeks ago  Fri 20-Jun-2014 13:00       3.0        36.8K
____           7 weeks ago  Fri 13-Jun-2014 13:00      208.0       35.8K
____           8 weeks ago  Fri 06-Jun-2014 13:00       4.5K       42.4K
____           9 weeks ago  Fri 30-May-2014 13:00       4.5K       27.3K
               **END**
```

Event Detectors

Sample Event Detectors supplied


```
CSNM30------------------- CAS : Valid Value List ------------------------19
Command ===>                                                Scroll ===> CSR

                                                         S/=Select (one only)

   Field: Event Detector Type

   Full Value      Description
   CCTN3270        Cisco Channel TN3270 Log Messages
   CONNECT         Connection Monitor
   CONNSTAT        TCP Connection Status
   CONSOLE         z/OS Console Messages
   CUSTOM          Custom Event Detector
   FRAGMENT        IP Packet Fragmentation
   FTPFAIL         FTP Failures
   ICMP            ICMP Message Monitor
   LINUX           Linux Messages
   LISTENER        IP Port Listener Monitor
   NOLISTEN        TCP Conn Attempt Fail No Listener Port
   RTPRED5M        APPN RTP Pipe ARBmode=RED >5min
   SSLHFAIL        SSL Handshake Failure
   SVRRESET        TCP Server Connection RESET
   SYSLOGD         USS Syslog Daemon Messages
   TCPEND          TCP Connection Ended
   TCPSTART        TCP Connection Started
   VMEVENT         VM Events
   VMMSG           VM Messages
   **END**
```

Complete your session evaluations online at www.SHARE.org/Orlando-Eval

Event Detectors – proactive management

- CONNSTAT – Monitors number of connections with a client.
    - Insure minimum number of connections present, i.e., EE requirements.
- SVRRESET – Monitors TCP connections that are reset by server.
    - Alerts if client trying to connect but can't, helps insure PCI compliancy.
- SSLHFAIL – Monitors Secure Sockets Layer(SSL) handshake failures
    - Many levels of SSL Handshake errors possible, helps eliminate wasted time in determining cause of failure.
- TCPSTART – Monitors client/server connections.
    - Restrict the detection to specified client-server connections
- TCPEND – Monitor connection end and reason codes

Event Detector
TCP Connection Status – (CONNSTAT)

- Detects when a server has 0 connections
  - When you have mission-critical connections to a z/OS IP application that must remain up 24 x 7.

  - You must maintain a certain number of connections to a z/OS IP application to provide the necessary health indication, traffic throughput, or volume.

```
------------------------ TCP/IP : TCP Connection Status ------------------------
Command ===>                                                      Function=Browse

Short Description ..... SAMPLE: Server has 0 connections          Status  INACTIVE

Monitor TCP Connection Status for:
Stack Name ............. TCPIP99
Server Host ............ 123.123.123.123
Server Ports ........... 12345
Client Host ............ 234.234.234.234
Connections Active .... 1
Auto Alert Clear? ..... NO


Create Alert:
Description   &$IPSTDDESC
Severity ... 4

Initiate Actions:
**NONE**
```

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Event Detector
TCP Server Reset – (SVRRESET)

- Detects when an established connection is reset
  - All server reset connection failures involving a specific application.

  - Any server reset connection failures and who they are most often happening to.

```
CSNM9---------------- TCP/IP : TCP Server Reset Detector -------------------
Command ===>                                                   Function=Browse

Short Description ..... SAMPLE: RST sent by server 12345        Status  INACTIVE

Monitor TCP Server Resets for:
Server Host ........... 123.123.123.123
Server Port ........... 12345
Active Alert Limit .... 5




Create Alert:
Description   &$IPSTDDESC
Severity ...  4

Initiate Actions:
**NONE**
```

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Event Detector
SSL Handshake failure – (SSLHFAIL)

- Detects when SSL security negotiation fails
  - You need to be notified of all connection failures of a specific critical secure connection.

  - You need to be notified of all connection failures to a secure application.

  - You want to know of any SSL handshake problems and where they are occurring most often.

```
CSNM9-------------- TCP/IP : SSL Handshake Failure Detector --------------
Command ===>                                                 Function=Update

Short Description ..... SAMPLE: SSL failure for a server      Status INACTIVE

Monitor SSL Handshake Failures for:                          (F4 to set)
Server Host ............ 123.123.123.123
Server Port ............ 12345
Active Alert Limit .... 5




Create Alert:                                                (F5 to set)
Description    &$IPSTDDESC
Severity ... 4

Initiate Actions:                                            (F6 to set)
**NONE**
```

Event Detector
Connection started – (TCPSTART)

- Detects when a connection has started for local/remote host or port
    - You need to be notified of all connections from a specific remote host, such as an external gateway.
    - You want to know of all connections to a restricted application and where they come from.
    - You want to know all connections between specific remote host and application.
    - You want to know any connection is not a secured connection.

```
CSNM9-------------- TCP/IP : TCP Connection Started Detector ---------------
Command ===>                                                  Function=Browse

Short Description ..... SAMPLE: A connection has started      Status INACTIVE

Monitor TCP Connections Started for:
Server Host ........... 123.123.123.123
Server Port ........... 12345
Client Host ........... 234.234.234.234
Active Alert Limit .... 5




Create Alert:
Description   &$IPSTDDESC
Severity ...  4

Initiate Actions:
**NONE**
```

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Event Detector
Connection ended – (TCPEND)

- Detects when a connection has ended and its details match a specified criteria.
    - You want to know all connection failures due to a specific reason code.
    - You need to know the reason for all connection terminations between specific partners.

```
CSNM30-------------- TCP/IP : TCP Connection Ended Detector ------------------
Command ===>                                                      Function=Update

Short Description ..... Connection closed by IDS          Status ACTIVE

Monitor TCP Connections Ended for:                        (F4 to set)
Server Host ............ *.*.*.*
Server Port ............ 1-65535
Active Alert Limit .... 5




Create Alert:                                             (F5 to set)
Description  &$IPSTDDESC
Severity ... 4

Initiate Actions:                                         (F6 to set)
Automation_Services_Process IDS Gen SNMP Trap to MoM
AUTO_TROUBLE_TICKET IDS event detected
```

TCPEND – Reason Codes to select from

```
CSNM38-------------- TCP/IP : TCP Conn End Reason Codes ------------------28
Command ===>                                              Scroll ===> CSR

                                  Use S or / to select the required value

    Field: Reason Codes

    Code    Description
____ 11     Error occurred during a send using FRCA(AFPA), possibly because the
            stack is terminating
____ 12     A persistent socket used by FRCA (AFPA) was closed by a FIN
____ 21     The connection was terminated because the stack was terminating
____ 22     Last stack that can own the dynamic VIPA bound to the socket is
            terminating
____ 31     Intrusion detection found the connection to be malicious and closed
            the connection
____ 32     Connection was denied because of a NetAccess rule
____ 33     ACK received in lastack state
____ 41     The connection was terminated because of an administrator action (for
            example, using Netstat DRop/-D command or the NMI API)
____ 42     The connection was terminated because the local IP address bound by
            the application has been deleted from the stack
____ 51     The connection from a client was terminated because the application
            closed the socket before performing an accept()
____ 52     The application using the socket, closed the connection using a
            close()
____ 53     A pascal routine issued an orderly close request
____ 54     A pascal routine issued a disconnect
____ 55     An error occurred during a pascal accept
____ 61     The connection was terminated because the client sent a reset
____ 71     The connection was closed because the same packet was being
            re-transmitted multiple times
____ 72     The connection was closed because the TCP window the client was
            reduced to zero and multiple window probes were not acknowledged
____ 73     The connection was closed because multiple keepalive probes were not
            acknowledged
____ 74     The connection was terminated because the stack timed out waiting for
            a fin in the finwait-2 state
____ ANY    Any non-zero reason code
    **END**
```

8/12/2015

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SmartTrace

SmartTrace Gems

Both Simple and advanced options use the same set of tools and interface for viewing the trace – no additional learning curve.

- SAVE – stored all traces in one repository (no additional dataset required).

- PRINT – a choice of printers or external data sets/HFS or even email.

- EXPORT – to 3rd party formats CTRACE (IBM only) and libpcap (distributed platform), collect the packets in SmartTrace and use your favourite packet viewer.

SmartTrace
Utilities

- Easy to use interface and utilities for managing traces
  - SAVE, EXPORT, PRINT

```
CSNM9------------------ TCP/IP : Packet Tracing Menu ------------------/SMART
Select Option ===>

    A     -  Add SmartTrace Definition                      TRADD
    L     -  List All SmartTraces                           TRALL
    LA    -  List Active and Ended SmartTraces              TRACES
    LS    -  List All Saved SmartTraces                     TRSAV
    EE    -  EE SmartTrace Menu                             EETRACE
    IM    -  Import libpcap Trace File                      LIBPCAP
    CT    -  Packet Tracing using Component Trace (CTRACE)  CTRACE
    X     -  Exit


Link Name .....+ CSNM9
```

```
DENM44------------------ SmartTrace : Packet List ------------------
Command ===> _                                          Scroll ===> CSR

                                                        S/V=View P=Print

      Definition DBTEST2
      Stack ....  TCPIP11              Description   FTP causing lunchtime c
      Local Host *                <--> Foreign Host 138.42.36.40
      Protocol   TCP


        Local Host     LPort Dir Port   +Time Bytes  Summary Information
___  00001 141.    66.11  21  <-  1169      -      48  Syn     Win=65535 Seq=3
___  00002 141.    66.11  21     -> 1169  <0.001   44  Ack Syn Win=32768 Seq=1
___  00003 141.    66.11  21  <-  1169   0.059    40  Ack     Win=65535 Seq=3
___  00004 141.    66.11  21     -> 1169   0.063   106  Rsp: 220-FTPD111 IBM FT
___  00005 141.    66.11  21  <-  1169   0.239    40  Ack     Win=65469 Seq=3
___  00006 141.    66.11  21     -> 1169  <0.001  100  Rsp: 220 Connection wil
___  00007 141.    66.11  21  <-  1169   0.059    54  Req: user CAMTHA4
___  00008 141.    66.11  21     -> 1169   0.001   67  Rsp: 331 Send password
___  00009 141.    66.11  21  <-  1169   0.059    55  Req: PASS Saddam90
___  00010 141.    66.11  21     -> 1169   0.222   40  Ack Psh Win=32753 Seq=1
___  00011 141.    66.11  21     -> 1169   4.296   101  Rsp: 230 CAMTHA4 is log
___  00012 141.    66.11  21  <-  1169   0.059    48  Req: TYPE A
 F1=Help      F2=Split    F3=Exit              F5=Find
 F7=Backward  F8=Forward  F9=Swap     F10=Left    F11=Right
```

Exporting Traces and Reports

Export Trace

GR - listing Report - viewing

Complete your session evaluations online at www.SHARE.c

Growth Tracker

Growth Tracker

Out-of-the-box historical reporting on network activity

– IP Volumes, connections counts and connection durations are summed each day

  – Stored indefinitely

  – Multiple timeframes for reports supported

    – 14,30,60,90 day reports

    – 6, 12 and ALL month reports

– Provides meaningful insights into network activity

– Assists in network planning

Growth Tracker

- Records growth in total mainframe IP usage over time.
  - IP Volumes, connections counts and connection durations are summed each day- stored indefinitely.

Total IP, TCP and UDP traffic
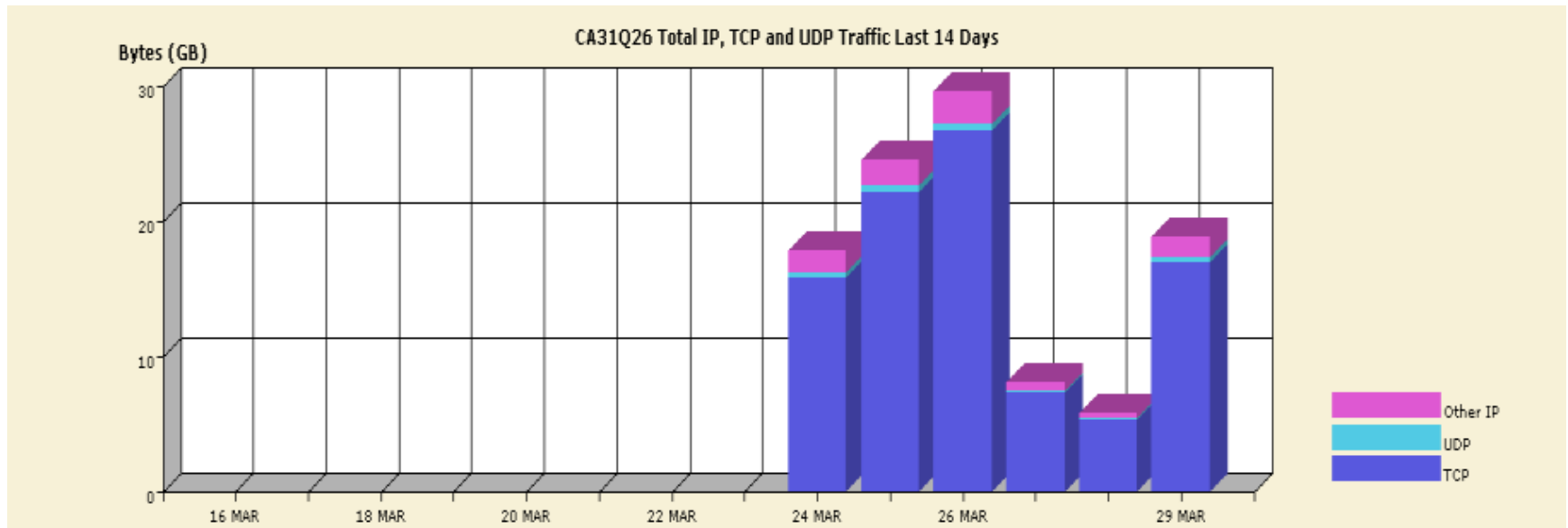
TCP traffic by server
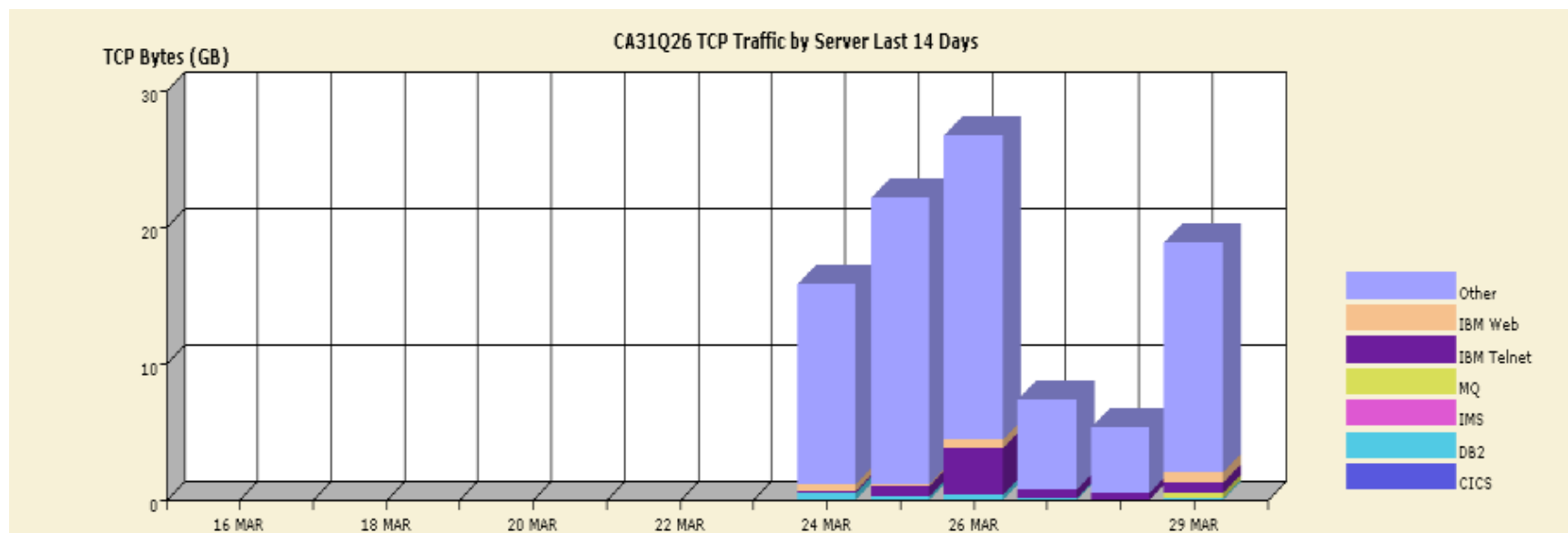
TCP connections by duration
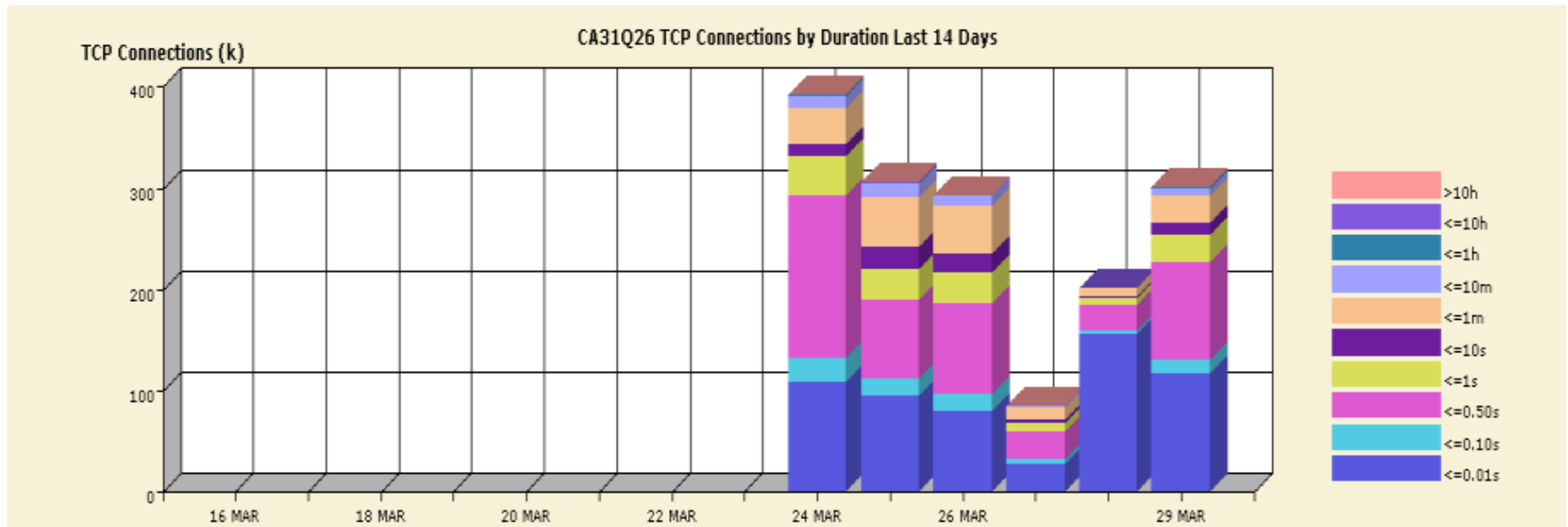
total UDP traffic
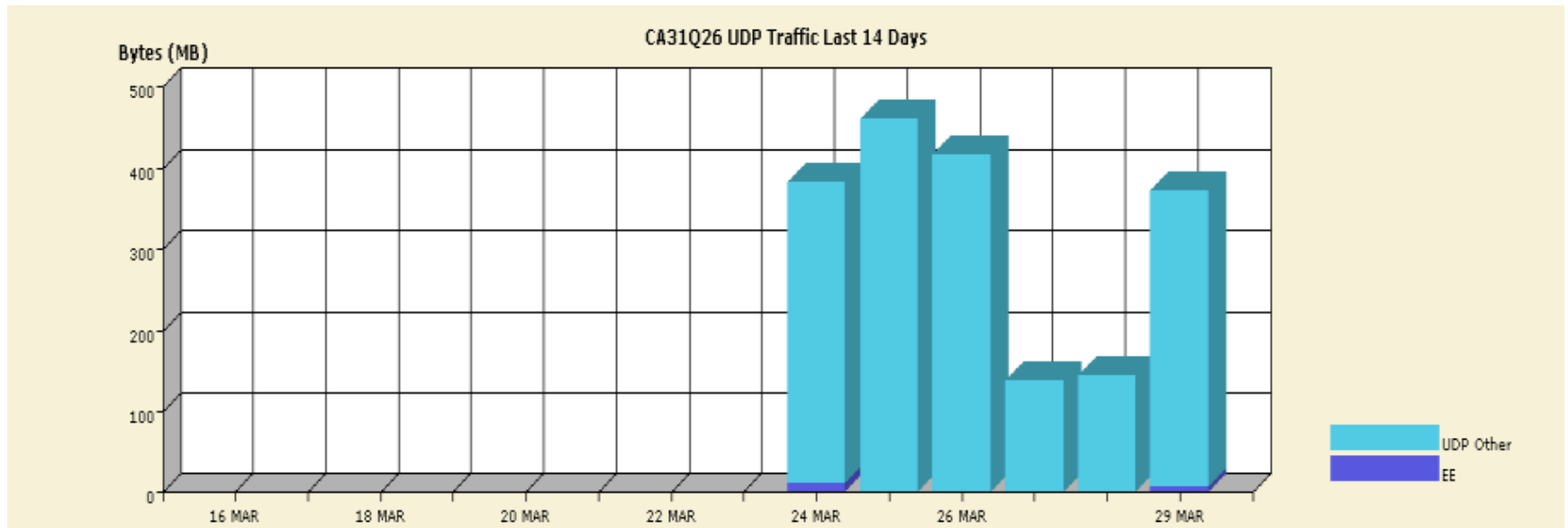
Predicting Growth

Problem quotes

- *"Our SNA sessions to DB2 haven't changed much for years… but surely DB2 remote access is growing? If I can show that, I can get more resources for my DB2 group."*

- *"Maybe the growth is with users coming in with TCP/IP?"*

Use Growth Tracker

- Illustrate the increase over time in mainframe IP network activity
- Out-of-the-box tracking, no setup, no databases
- Connection and Traffic totals are kept indefinitely

IP Growth Tracker, TCP Traffic Growth

CA31 TCP Traffic by Server Last 30 Days
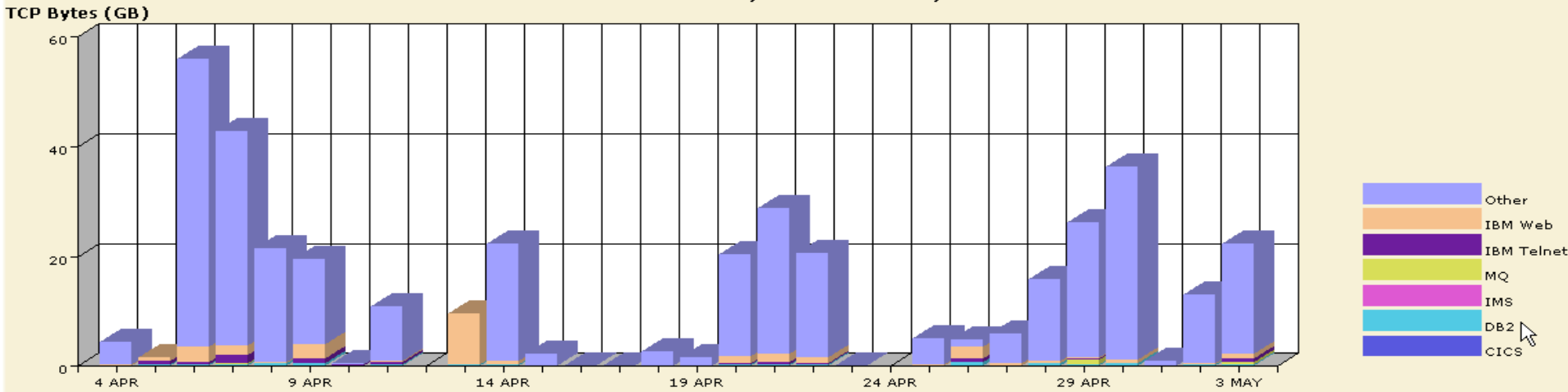
Date	TCP Bytes (Total)	CICS	DB2	IMS	MQ	IBM Telnet	IBM Web	TCP (Other)	TCP Connections
4 APR	4,390,539,717	0	119,860,682	0	0	725,826	135,771,444	4,134,181,765	245,126
5 APR	0	23,828	231,128,422	0	0	640,416,837	719,469,879	0	0
6 APR	56,014,335,211	167,864	275,604,934	0	148,229,496	362,247,365	2,722,615,492	52,505,470,060	394,942
7 APR	42,764,851,062	7,230	394,128,108	0	181,341,750	1,376,375,200	1,733,115,914	39,079,882,860	340,622
8 APR	21,442,093,761	546,862	459,633,662	0	33,099,406	94,920,342	93,672,059	20,760,221,430	284,298
9 APR	19,606,701,833	40,095,093	549,289,569	0	0	844,782,057	2,533,143,911	15,639,391,203	494,922
10 APR	534,175,687	0	197,727,488	0	0	41,769,322	1,558,254	293,120,623	124,117
11 APR	10,818,018,168	0	231,231,626	0	0	444,675,045	267,484,367	9,874,627,130	698,175
12 APR	0	0	0	0	0	0	0	0	0
13 APR	0	154,652	268,154,796	0	0	131,598,424	9,267,433,937	0	0
14 APR	22,238,183,725	13,191	255,481,129	0	0	74,130,762	636,777,449	21,271,781,194	353,671
15 APR	2,291,443,756	4,766	5,667,095	0	0	6,894,687	34,501,362	2,244,375,843	62,774
16 APR	989,183	2	2,446	0	0	2,976	14,893	968,865	27
17 APR	46,904,192	0	18,051,507	0	0	8,011	2,736,515	26,108,159	2,506

Creating Emails

Where to find it


```
NMMSC---------------- Administration : Primary Menu ----------
Select Option ===> /aladmin_

    A    - Alert Monitor Administration                ALADMIN
    R    - Resource Administration                     RADMIN
    S    - Service Administration                      SADMIN
    E    - Event Administration                        EADMIN
    G    - Graphical Monitor Administration            GADMIN
    M    - Multi-System Support Administration         MADMIN
    IP   - TCP/IP Administration                       IPADMIN
    SN   - SNA Administration                          SNADMIN
    AS   - Automation Services Administration          ASADMIN
    SS   - Se
    C    - Cu    NMMSC---------------- Alert Monitor : Administration Menu
    X    - E     Select Option ===>


                     I    - Define Trouble Ticket Interface
                     D    - Define Trouble Ticket Data Entry
                     F    - Define Filters
                     L    - Define List Formats
                     ST   - Alert Monitor Self Test
                     X    CSNM9------------------- CAS : Valid Value List --------------------
                          Command ===>                                  Scroll ===> CSR

                                                                    S/=Select (one only)

                              Field: TroubleTicket I/Face

                              Abbrev   Full Value       Description
                         ____  C        CUSTOM           User Supplied NCL Procedure
                         ____  E        EMAIL            Use eMail to Request Trouble Ticket
                         ____  NONE     NONE             Clear Trouble Ticket Interface Type
                         ____  S        SERVICEDESK      Create CA Service Desk Request
                               **END**
```

Alert Monitor
Email Interface set up

```
CSNM9------------- Alert Monitor : Email A Trouble Ticket -Columns 00001 00072
Command ===>                                       Function=Update Scroll ===> CSR

Mail Address                     &$USRNAM
Host Name        (IBM)           USI1DAMD
SMTP Node Name   (IBM)           USILDAMD
SMTP Job Name    (IBM)           SMTP
SMTP DEST Id (TCPaccess)         _____
Exit Procedure Name
Subject                          &$AMSDESC

                         Enter Mail Text Below

****** ***************************** TOP OF DATA *****************************
000001    SERIALNM................    &$AMSERIALNM
000002    DATE....................    &$AMDATE
000003    TIME....................    &$AMTIME
000004    DAY.....................    &$AMDAY
000005    SYSTEMID................    &$AMSYSTEMID
000006    SOURCE..................    &$AMSOURCE
000007    DESC....................    &$AMDESC
000008    APPLID..................    &$AMAPPLID
000009    CLASSID.................    &$AMCLASSID
000010    RESCLASS................    &$AMRESCLASS
000011    RESTYPE.................    &$AMRESTYPE
****** *************************** BOTTOM OF DATA ****************************




 F1=Help          F2=Split        F3=File         F4=Save        F5=Find         F6=Change
 F7=Backward      F8=Forward      F9=Swap         F10=Left       F11=Right       F12=Cancel
```

Alert Monitor
Total parameters available

- **Parameters**
  - $AMAPPLID   Application that created the alert
  - $AMDESC   Alert short description
  - $AMDATE   Date when the alert was generated
  - $AMDAY   Day of the week when the alert was generated
  - $AMGMTOFFST   Local time difference from Greenwich Mean Time (UTC)
  - $AMLASTDATE   Date when the alert last occurred
  - $AMLASTTIME   Time when the alert last occurred
  - $AMOCCURRED   Number of times the alert has occurred
  - $AMSERIALNM   Software generated alert identifier
  - $AMSEVERITY   Severity of the alert
  - $AMSYSTEMID   System that created the alert
  - $AMTEXT*   Alert text line * (1 through 5)
  - $AMTIME   Time when the alert was generated
  - $AMUPDDATE   Date when the alert was last updated
  - $AMUPDTIME   Time when the alert was last updated
  - $AMRECM*   Alert recommended action line * (1 through 20) when not retrieved from a CAS message
  - $AMCLASSID   Class of the alert
  - $AMCLOSDATE   Date when the alert was closed
  - $AMCLOSTIME   Time when the alert was closed
  - $AMRESOURCE   Resource name causing the alert
  - $AMRESID   Resource name if a second one is needed
  - $AMRESCLASS   The resource class
  - $AMRESTYPE   The resource class type
  - $AMELAPTIME   The amount of time (hh:mm) between when

Alert Monitor Email Interface
Sample NCL Procedure

```
&DOWHILE .&ADDR&CNT NE .
    &WRITE LOG=YES COLOR=YELLOW DATA=&0 Mail sent to &ADDR&CNT
    -$AMEMAIL ACTION=SENDMAIL +
-*              ADDRESS=&ADDR&CNT +
                ADDRESS=guecr01@ca.com +
                SMTPJOB=SMTP +                        -* SMTP Jobname
-*              CLASS=X +                             -* output class
-*              SMTPNODE=USILCA31 +                   -* SMTPNODE
-*              HOSTNAME=TCPIP31V.CA.COM  +           -* hostname
                SMTPNODE=USILCA11 +                   -* SMTPNODE
                HOSTNAME=USILCA11.CAI.COM +           -* hostname
                FROM=testmail                +        -* FROM
                TYPE=IBM
    &CNT = &CNT + 1
&DOEND
&END
```

Via Process definition

```
CSNM9---------- Automation Services : Process Definition -----Function=Browse
Command ===>                                              Scroll ===> CSR

  Process Definition
  System Name .+ $PROCESS  Version ...+ 0001
  Name ......... EMAIL
  Description .. Send Email message to a person or a pager

  Process Steps
                                                              P=Parms

                    Condition
      StepName    Step/RC  Opr RC    Macro      Description
____  EMAIL                          STARTNCL   START AN NCL PROCEDURE
      **END**
```

```
--------- Automation Services : STARTNCL Macro Parameter Definition ----------
Command ===>                                              Function=UPDAT

  NCL Procedure Details

  NCL Name .... EMAIL

  Region .....+ BSYS         (AOMP, BLOG, BMON, BSYS, CNMP, LOGP or PPOP)

  Parameters .. GROUP=&GROUP  SUBJECT="&SUBJECT"
                TEXT1="&TEXT1"
                TEXT2="&TEXT2"
                TEXT3="&TEXT3"

  Segment Multi-word Parameter Variables ... NO     (YES or NO)
```

Alert Monitor Email Interface
Receiving emails

Complete your session evaluations online at www.SHARE.org/Orlando-Eval

Charts and Graphs

Performance Charts/Alerts Mobility Post GA 12.1

➤ Being truly mobile doesn't mean being tied to one device.

➤ Our solution works anywhere the user needs to be.
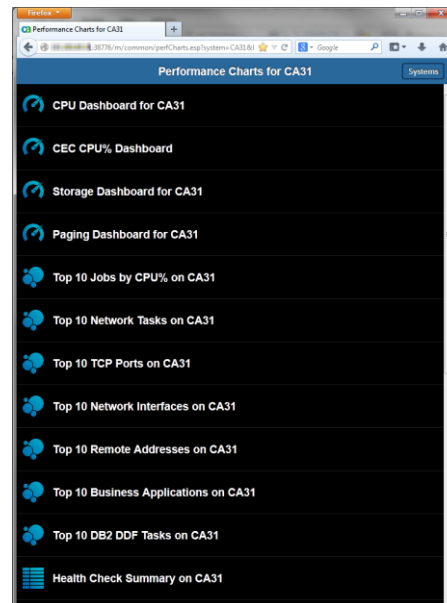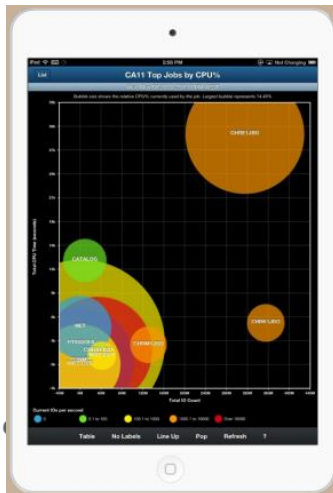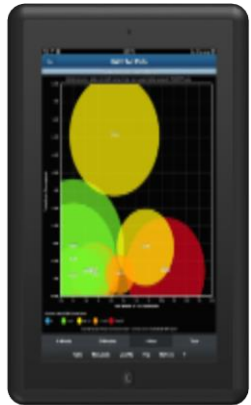
Mobility in the workplace
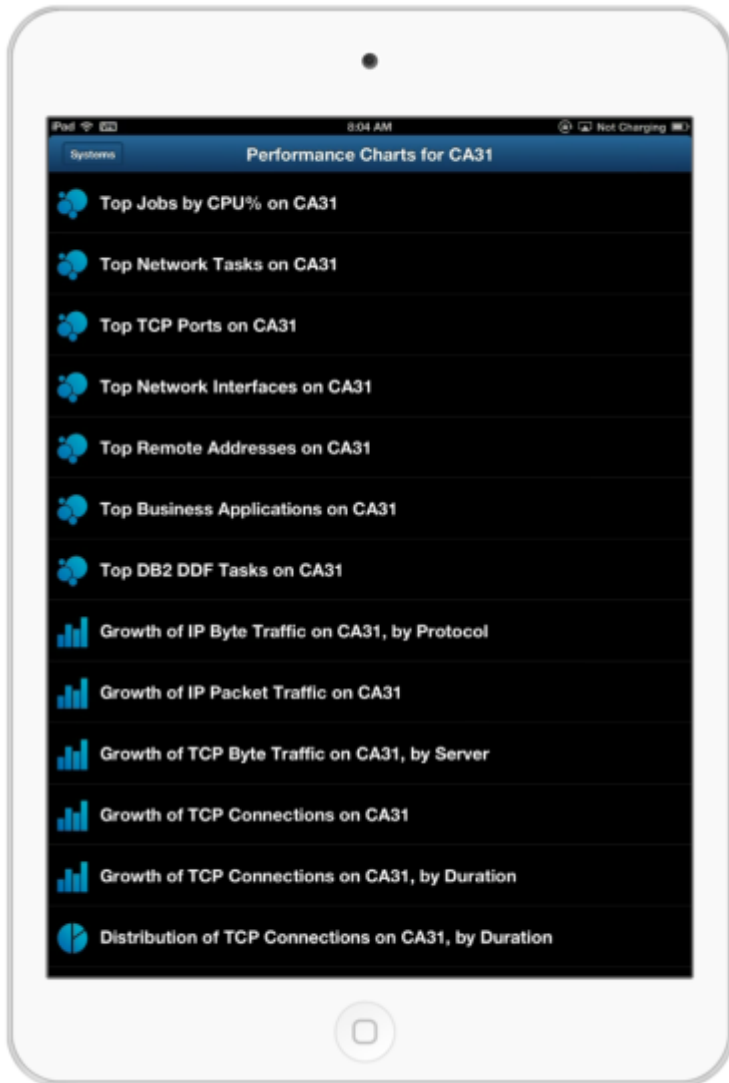
Performance Charts for Networks

What it does

Mainframe server retrieves mainframe network performance data from NetMaster, then generates graphical mobile web pages to display it.

- Real-time IP network flow analysis data helps problem diagnosis, and shows network usage patterns of critical mainframe applications and servers.

- Historical high level TCP/IP network traffic growth data helps operational reviews and capacity planning.
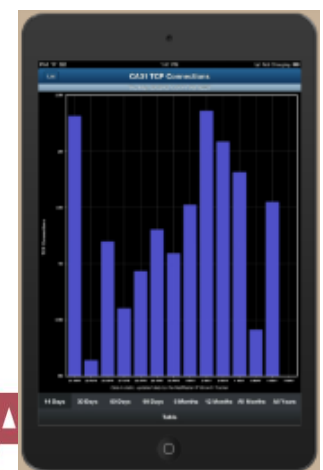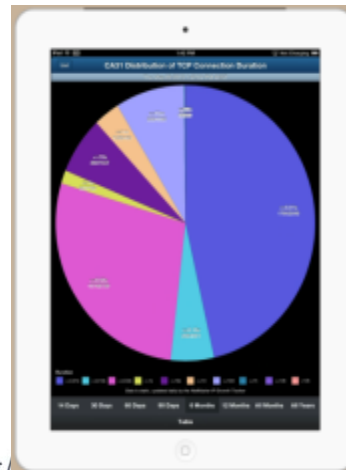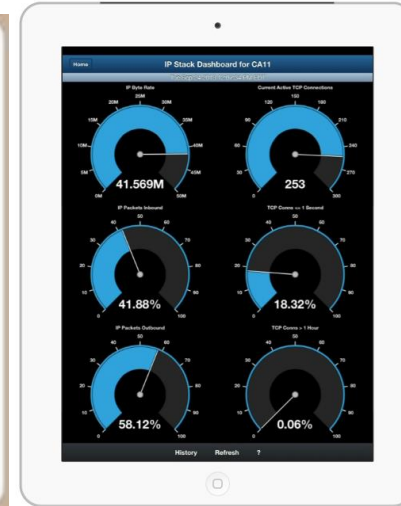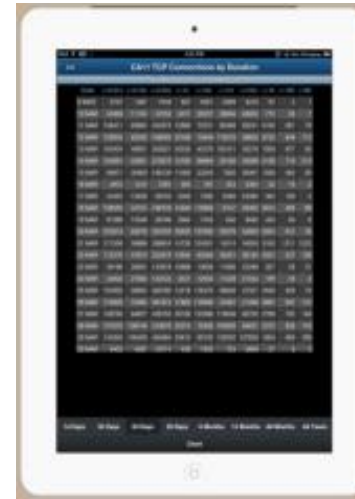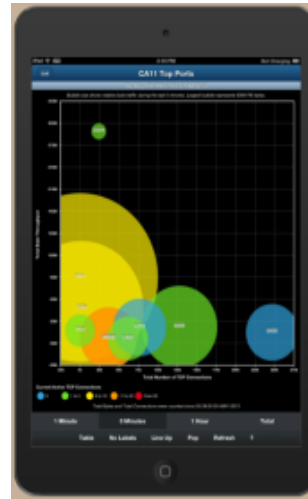
What it looks like

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Performance Charts for Systems

What it does

What it looks like

Mainframe server
retrieves performance
data from SYSVIEW
then generates
graphical mobile web
pages to display it.

- SYSVIEW reaches deep into
the operating system to
measure every aspect of
system, user and resource
activity.

- .

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Integration to other CA Products

NetMaster – CA APM Integration

➤ Provides metric feeds from CA NetMaster®

➤ Viewed via CA APM
    ➤ APM dashboards
    ➤ APM reports
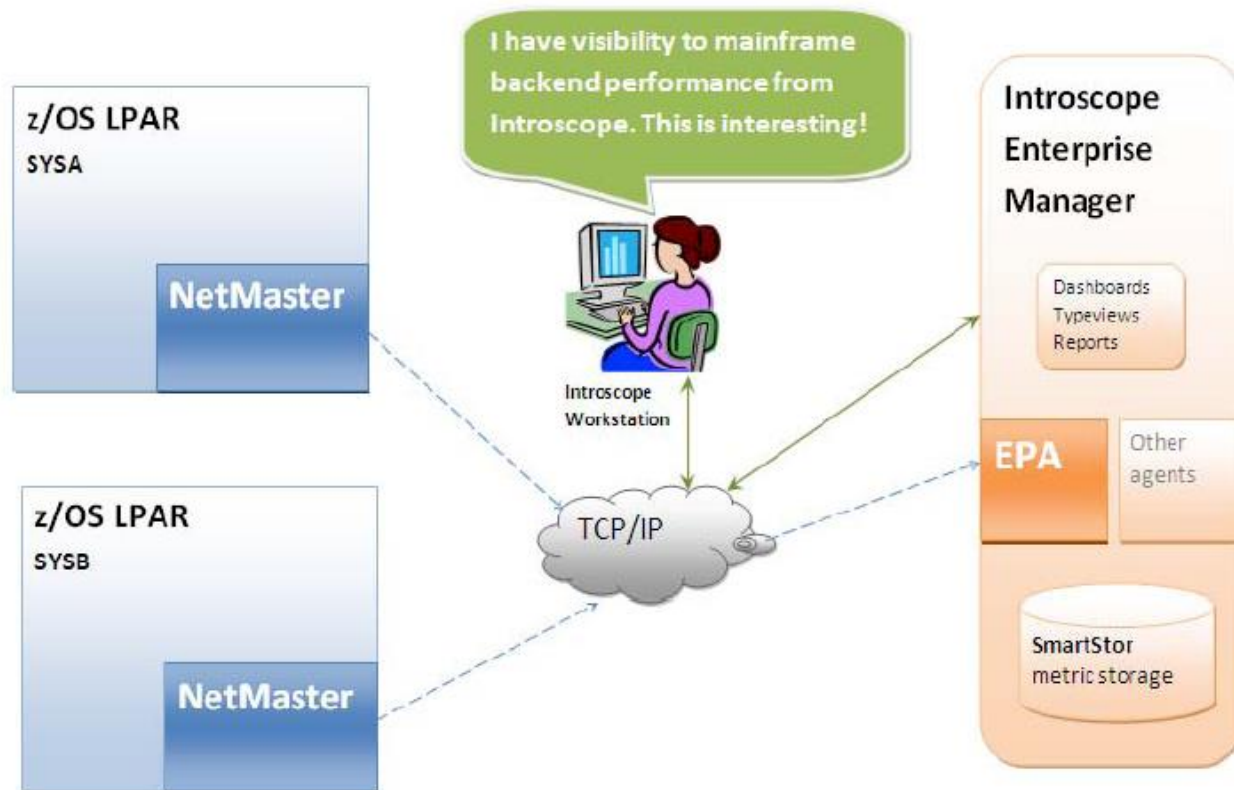
CA NetMaster® r12.1 and CA APM on Linux or Windows

NetMaster – OPS/MVS Integration

Alert forwarding from OPS/MVS EMA
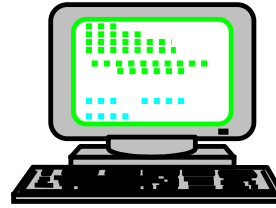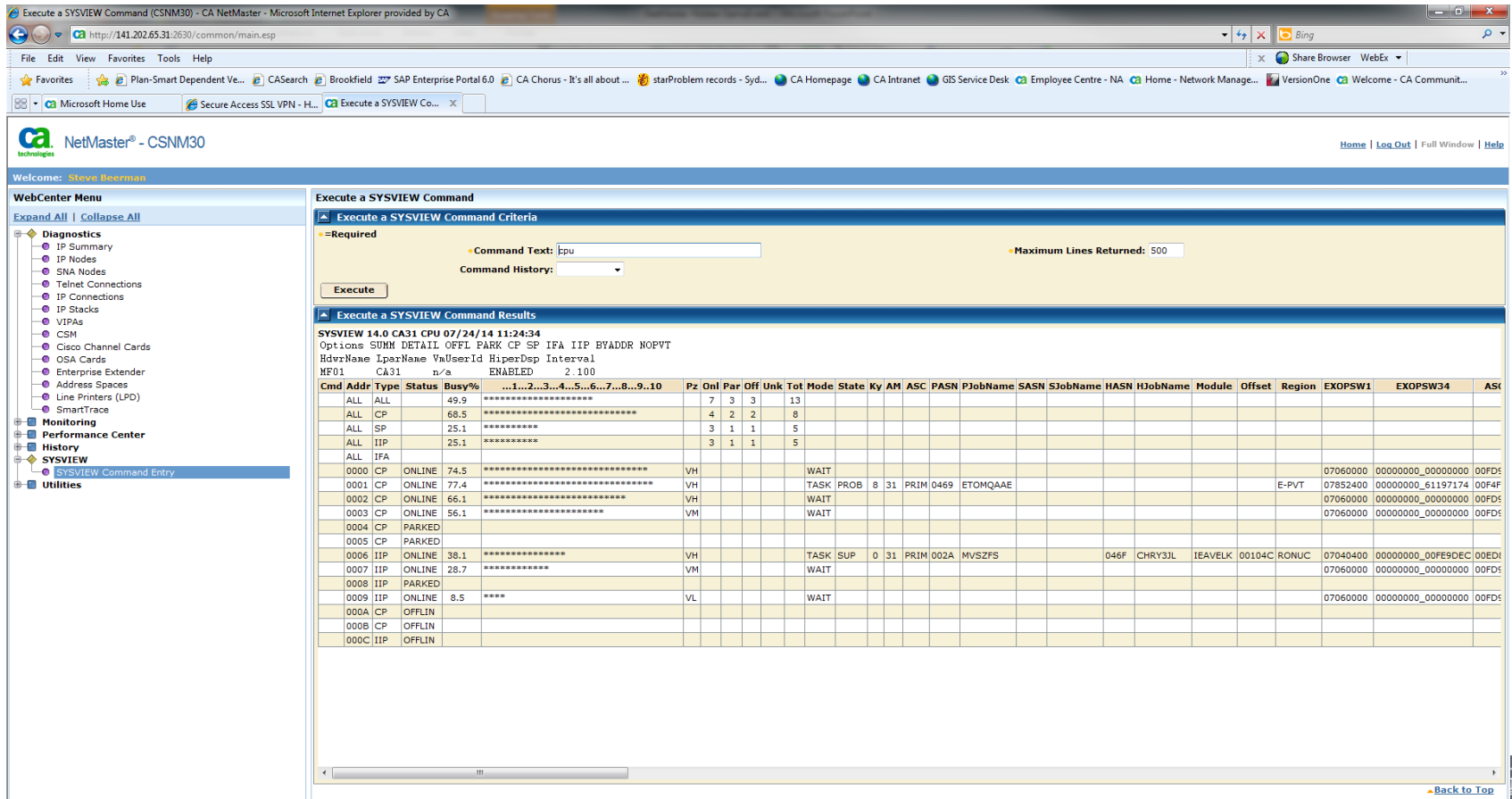
NetMaster Links enables all alerts to be seen and processed on every NetMaster

NetMaster	NetMaster	NetMaster	NetMaster	NetMaster
NMSSI	NMSSI	NMSSI	NMSSI	NMSSI
OPS/MVS	OPS/MVS	OPS/MVS	OPS/MVS	OPS/MVS
MVSA	MVSB	MVSC	MVSD	MVSE

OPS/MVS EMA network using LU 6.2 & CCI

AOALERT request

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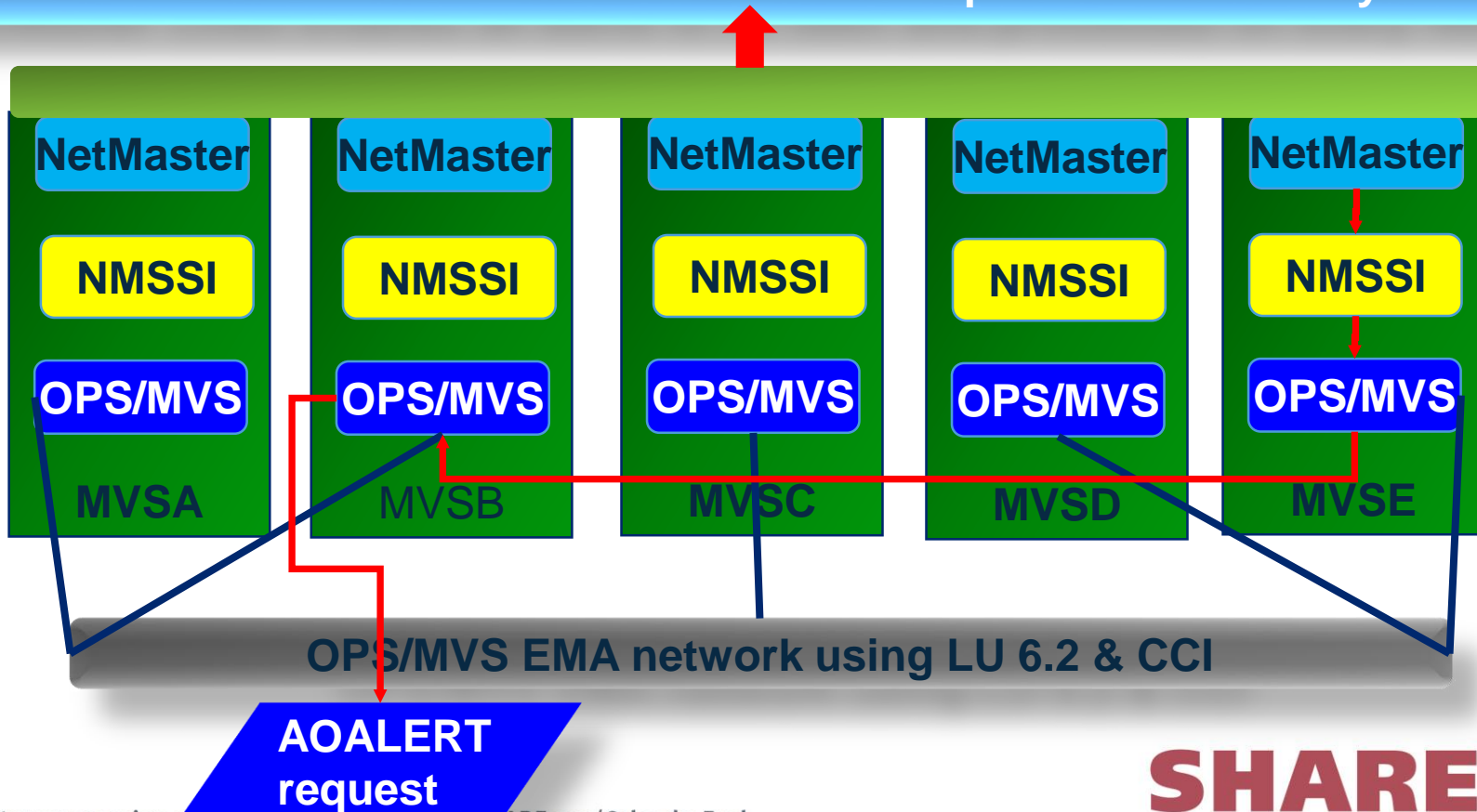
Integration with other products
SysView Command entry

- Issue Sysview commands from WebCenter

Q&A

Hidden Gems in *CA NetMaster for TCP/IP*: Come Explore where You May Have Missed Them

August 13th, 2015
Session *17790*

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Hidden Gems in *CA NetMaster for TCP/IP*: Come Explore where You May Have Missed Them

Craig Guess
CA Technologies

August 13, 2015
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