



# Session 11732

## The Many Faces of the Mainframe: Yesterday, Today, and Tomorrow

### Roundtable Discussion

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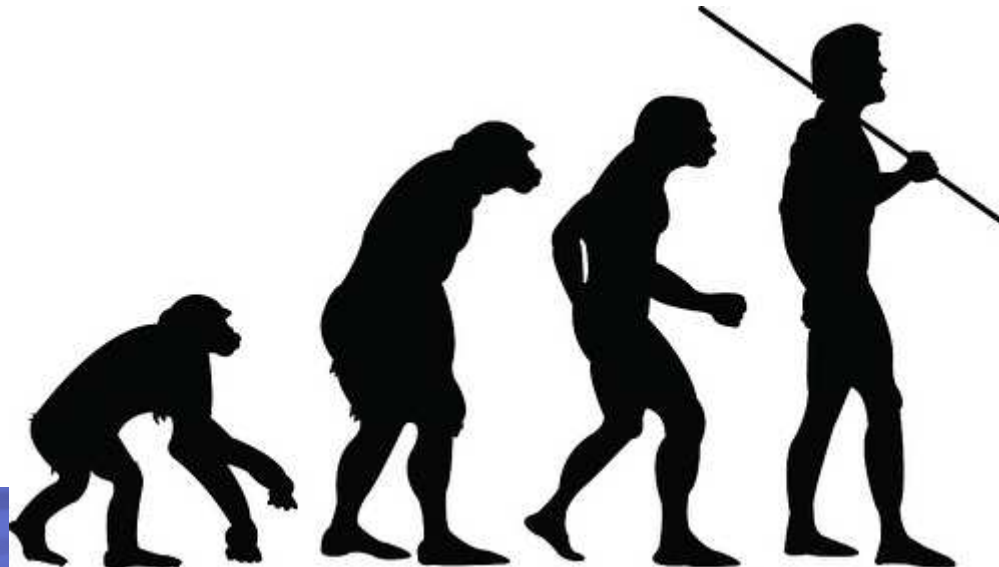
## Agenda

- A brief history of the many faces of the mainframe
- A conversation about the strengths and weaknesses of various types of interface
- What about mobile devices like the iPhone or Android?

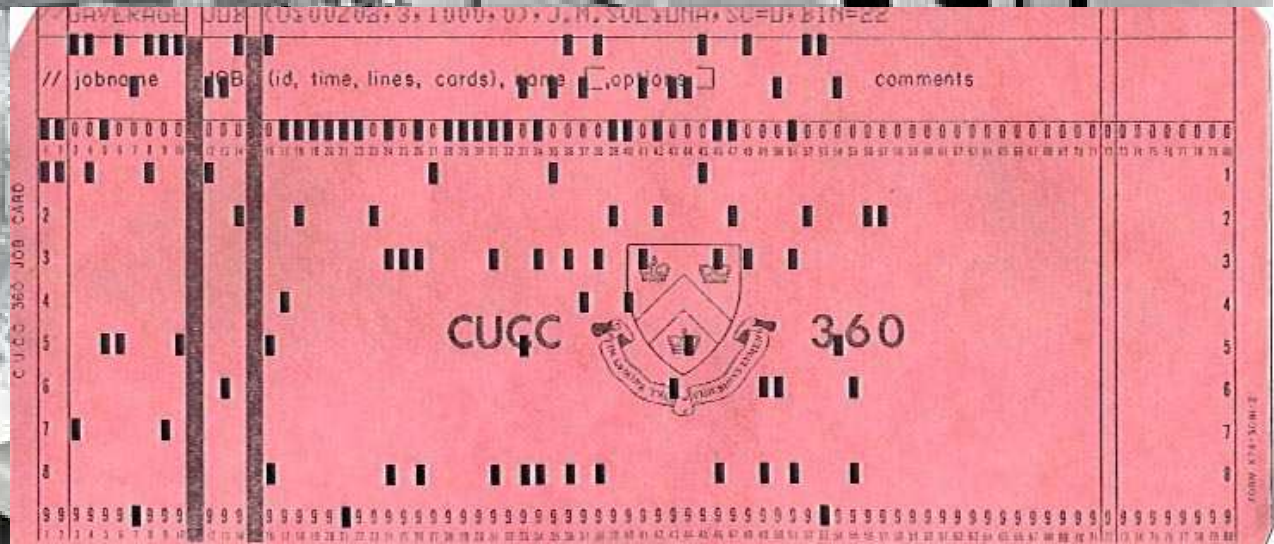
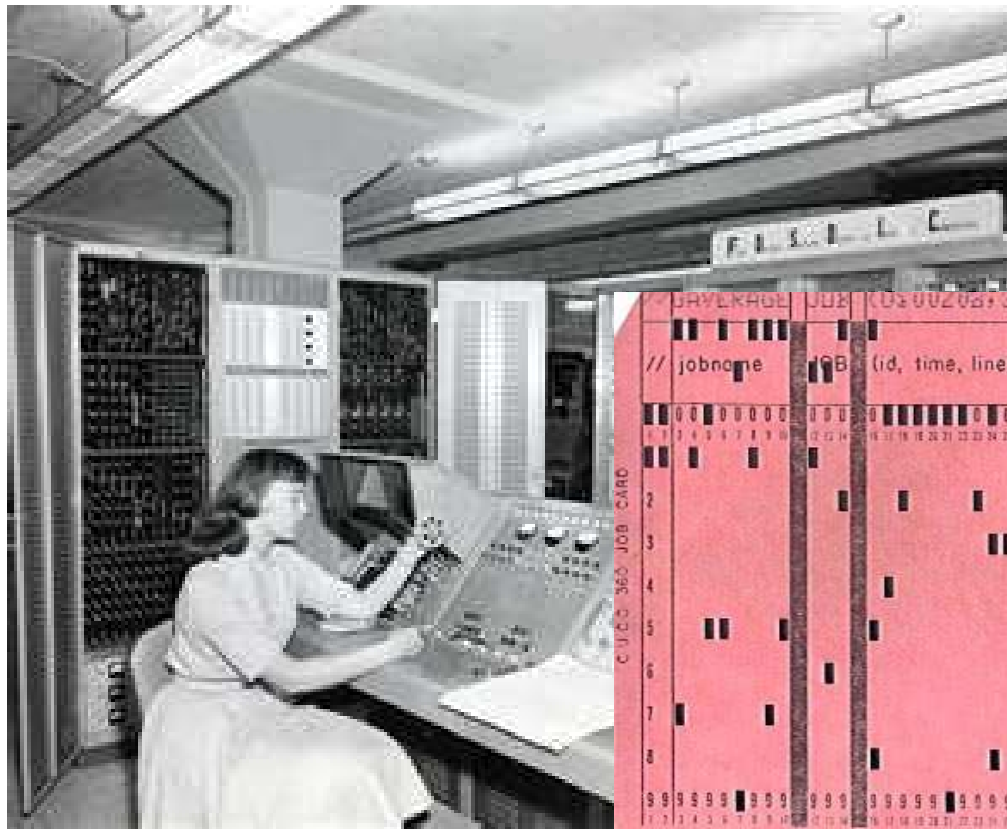


# History of the z/OS UI

- **First there was Batch (1945-1968)**
  - ▶ A user would submit a program on a series of punch cards,
  - ▶ the computer would run the program at some scheduled time
  - ▶ results would be picked up hours or even days later
- **Then came the Command-line (1969-1983)**
  - ▶ Users enter commands on a text-based terminal in real-time called Time Sharing Options or TSO, an interactive command line interpreter
- **And on to the Graphical UI (1984 and after)**
  - ▶ Menu-based
  - ▶ Interactive Systems Productivity Facility or ISPF: a menu-based application for building software that runs under z/OS
- **What's next?**



# Remember when...?



# TSO

```

help
LANGUAGE PROCESSING COMMANDS:

ASM          INVOKE ASSEMBLER PROMPTER AND ASSEMBLE
CALC         INVOKE ITF:PL/1 PROCESSOR FOR DESK CAL
COBOL        INVOKE COBOL PROMPTER AND AHS COBOL CO
FORT         INVOKE FORTRAN PROMPTER AND FORTRAN IN

PROGRAM CONTROL COMMANDS:

CALL
LINK
LOADGO
RUN
TEST

DATA MANAG
ALLOCATE
CONVERT
COPY
DELETE
EDIT
***

FORMAT       FORMAT AND PRINT A TEXT DATA SET.
FREE         RELEASE A DATA SET.
LIST         DISPLAY A DATA SET.
LISTALC     DISPLAY ACTIVE DATA SETS.
LISTBC      DISPLAY MESSAGES FROM OPERATOR/USER.
LISTCAT     DISPLAY USER CATALOGUED DATA SETS.
LISTDS
MERGE
PROTECT
RENAME

SYSTEM C
FOR MORE INFORMATION ENTER HELP COMMANDNAME OR HI
READY
ACCOUNT
OPERATOR

SESSION
EXEC
HELP
LOGOFF
LOGON
PROFILE
***

PRINT        LIST ALL OR PART OF AN INDEXED SEQUE
OR VSAM DATASET.
REPRO       COPY VSAM CLUSTERS, CATALOGS, AND HO
VERIFY      VERIFY END OF FILE.

help listcat

FUNCTION -
THE LISTCAT COMMAND LISTS ENTRIES FROM EITHER
A USER CATALOG.

SYNTAX -
LISTCAT    CATALOG('CATNAME/PASSWWD')
           OUTFILE('DNAME')
           LEVEL('LEVEL') | ENTRIES('ENTR
           CREATION('NNNN')
           EXPIRATION('NNNN')
           NOTUSABLE
           CLUSTER DATA INDEX ALIAS S
           USERCATALOG GENERATIONDAT
           ALTERNATEINDEX PATH

***
0.0 09/22/04.266 06:31PM
    
```

# ISPF

```

File Edit Session Options Transfer View Macro Script Help
_Menu _Functions _Confirm _Utilities _Help
-----
DSLIST          ISP.SISPGUI          Row 00005 of 00007
Command ==>          Scroll ==> 0005
-----
Name      Prompt      Size  Created      Changed      ID
-----
ISPGUIX
ISPGUIOX
ISPGUI5X
**End**
-----
_Menu _Utilities _Compilers _Options _Status _Help
-----
ISPFP Primary Option Menu          Connected
Option ==> |
-----
0 Settings      Terminal and user parameters      <  Calendar  >
1 View          Display source data or listings    December 2006
2 Edit          Create or change source data       Su Mo Tu We Th Fr Sa
3 Utilities     Perform utility functions          1 2
4 Foreground    Interactive language processing     3 4 5 6 7 8 9
5 Batch         Submit job for language processing  10 11 12 13 14 15 16
6 Command       Enter TSO or Workstation commands  17 18 19 20 21 22 23
7 Dialog Test   Perform dialog testing             24 25 26 27 28 29 30
J Job Submit    HMSA tape job submission           31
P Panvalet      Browse, edit, and utilities         Time . . . . . : 02:15
S SDSF          System Display & Search Facility    Day of year . . : 352
U CA-1 TMS      CA-1 Tape Management System R52
W Workplace     ISPF Object/Action Workplace

Enter X to Terminate using log/list defaults
    
```

# z/OSMF

**IBM z/OS Management Facility** Welcome debug1 Log out

- Welcome
- Configuration**
- Links**
- Performance**
  - Capacity Provisioning
  - Resource Monitoring
  - System Status
  - Workload Management
- Problem Determination**
- Software**
- z/OS Classic Interfaces**
- z/OSMF Administration**

[Refresh](#)

Welcome Workload Man...

**Welcome to IBM z/OS Management Facility** [About](#)

IBM® z/OS® Management Facility (z/OSMF) provides a framework for managing various aspects of a z/OS system through a Web browser interface. By streamlining some traditional tasks and automating others, z/OSMF can help to simplify some areas of z/OS system management.

To learn more about z/OSMF, visit the links in the Learn More section.

To start managing your z/OS systems, select a task from the navigation area.

**Learn More:**

- [What's New](#)
- [z/OSMF tasks at a glance](#)
- [Getting started with z/OSMF](#)



# z/OSMF

**IBM z/OS Management Facility** Welcome debug1 Log out

Welcome x Workload Man... x

## Workload Management [Help](#)

Overview Service Policies for Sysplex x Service Definitions x

Use this task to manage z/OS Workload Manager (WLM) service definitions. To get started, select one of the following actions. [Learn more...](#)

**Manage**

- [Service Definitions](#) Define, modify, view, copy, import, export, print, or install a service definition.
- [Service Policies for Sysplex](#) Activate or view one of the service policies that is defined in the installed service definition.
- [Settings](#) Set preferences for messages, service definition history, couple data set, and sysplex. Verify the code page and time zone settings before you start working.

**View**

- [WLM Status](#) View the status of WLM on each system in the sysplex. View details about the installed service definition and the active service policy.

[Refresh](#)

# System z + QR Code + Mobile Device



QR Code Label on Machine  
”



App: Scans QR barcode label on System z machine with camera

Allows person on the IT floor to grab just a subset of information about the machine.

Quick path to customer definable body of information that is appropriate for the user.



IBM Remote: QR Code Gener. x

pbohrer.com/qrcode/

# IBM Mobile Systems Remote QR Code Generator

IBM Research Austin Lab



Management Endpoint Hostname: 9.60.15.48

Management Endpoint Protocol/Type: System Z HMC

UserID: ensadmin

Type: CPC Label: R32

First View: Metrics

Encode

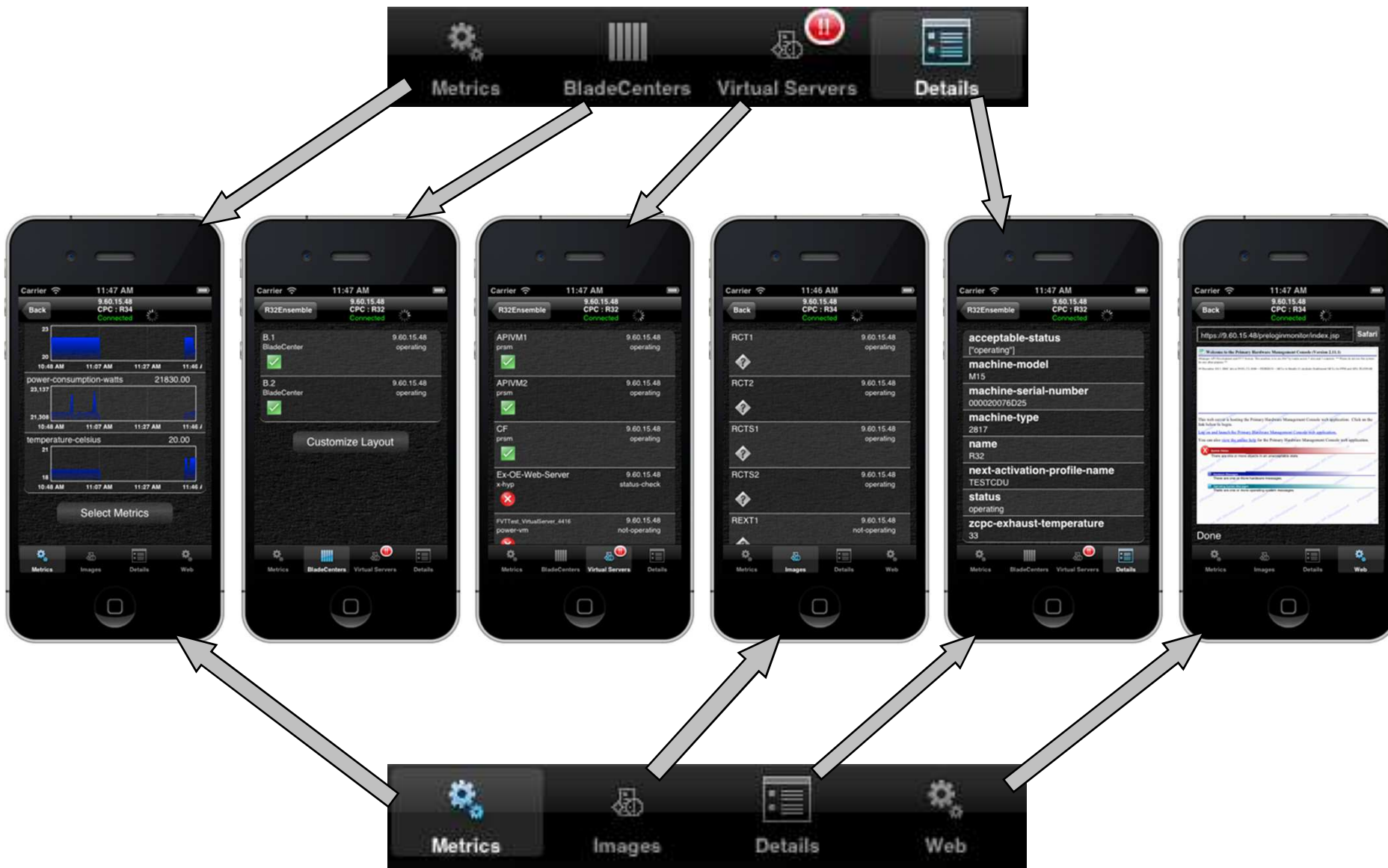
Encoded URL: `ibmremote://ensadmin@9.60.15.48:6794?type=CPC&label=R32&view=metrics`

URL History: `ibmremote://ensadmin@9.60.15.48:6794?type=CPC&label=R32&view=metrics`

Clear History

# CPC Views

# Ensemble CPC Views





## IBM One UI

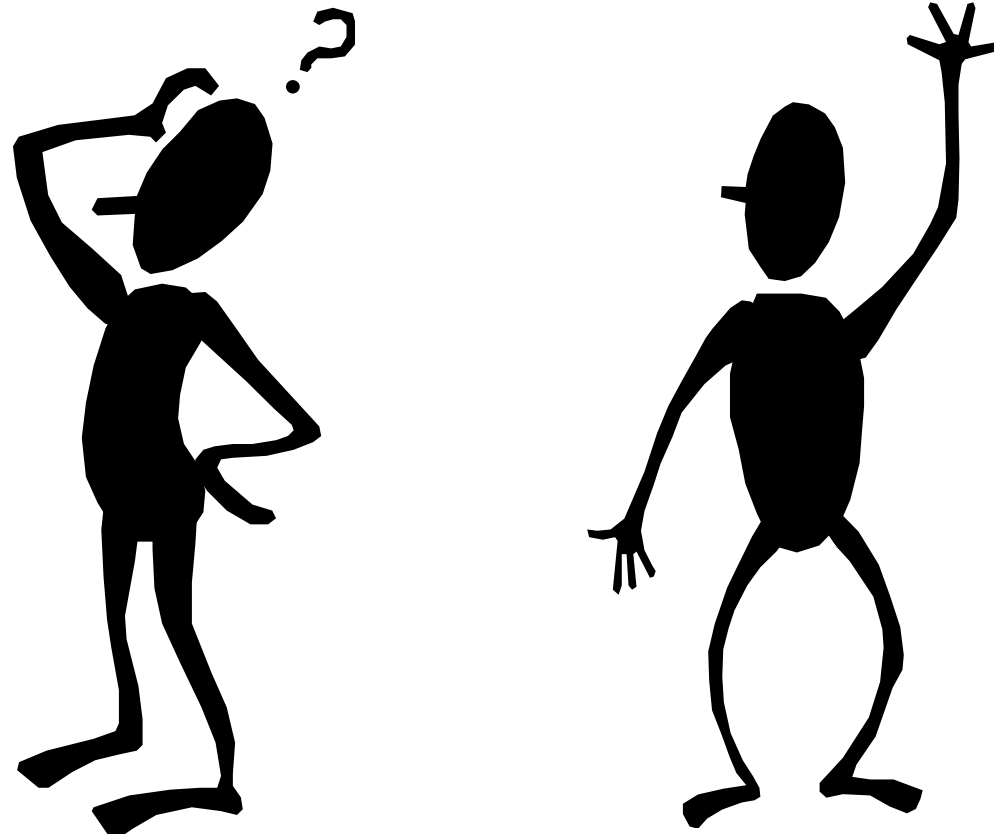
*IBM's design system for realizing exponential business value  
by driving great and consistent design across our portfolio.*  
Steve Mills, Senior VP



## Discussion points

- How important is a mobile option for z?
- What is your favorite/best UI? What is it that you like about it?
- What security concerns are most important to you?
- What types of monitoring and management tasks would you like to be able to perform using a mobile device?
- Would you like tasks specifically designed for a particular device (i.e., iPhone, Android, or tablet) or do we need to replicate the HMC or full screen interfaces?
- Ability to set up customized text alerts from the mainframe?
- Analog vs digital display?
- How important is it to be able to customize what info you are getting?
- Would you prefer a single app for a single task or an app for a suite of tasks?
- What security concerns are most important to you?

## Questions or Comments?



# Thank You



Spanish



French



Brazilian  
Portuguese



Dutch



German



Russian



Italian