

## 14263: Roundtable Discussion: The Many Faces of System Z

Tuesday, August 13, 2013: 12:15 PM-1:15 PM

Room 313 (Hynes Convention Center)

Speaker: Geoff Smith – (IBM Corporation)

Special Guest Speakers: Charles Gange – (IBM Corporation)



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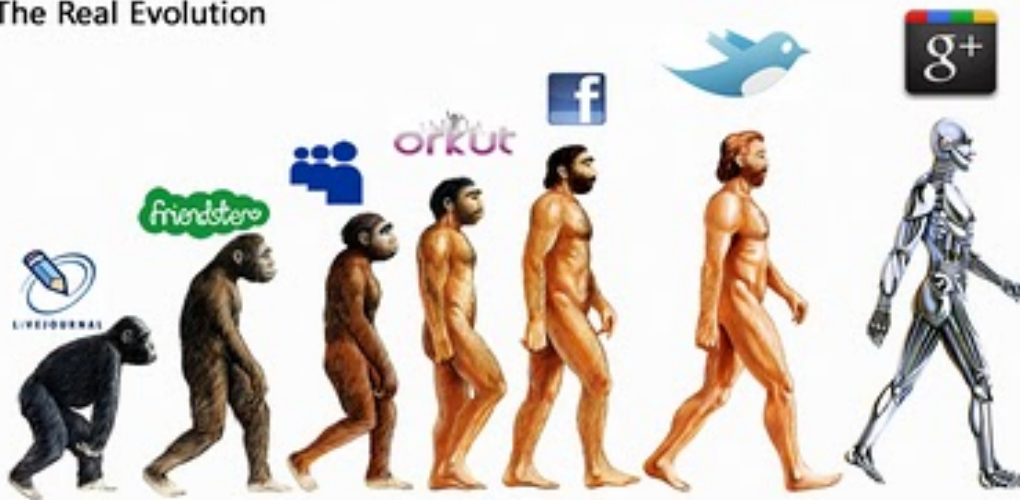
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## Abstract

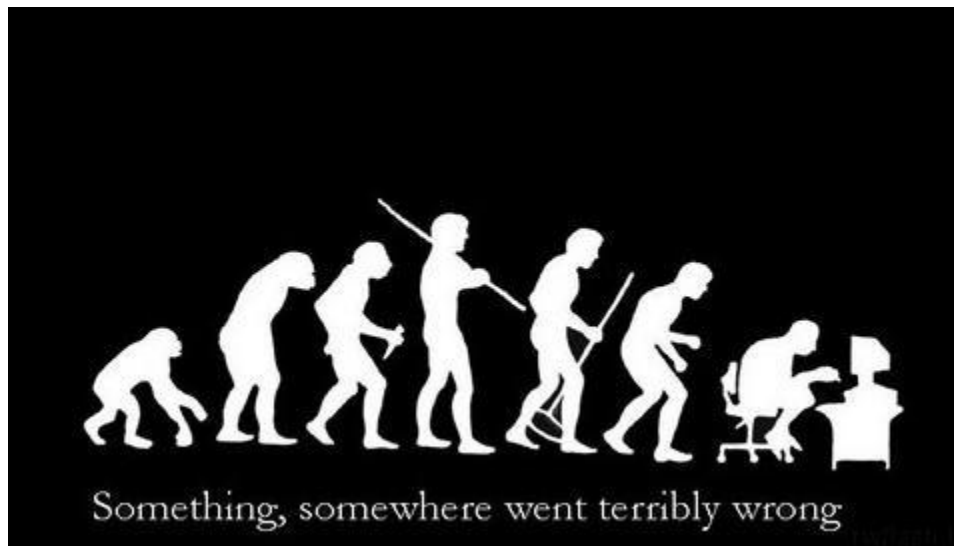
- The mainframe has had many user interfaces over its long history. We will begin our journey with a brief history of the many faces of the mainframe. We will consider old and new interfaces and have a conversation about the strengths and weaknesses of various types of interface. What are your favorites? What improvements can we make for the experienced systems programmer? What are the expectations and needs of new hires and new users? What new interfaces could you use to improve your productivity? Should new interfaces be optimized for mobile devices like the iPhone or Android? z/OS Performance Monitoring? Oh yes. . .we have an app for that! This should prove to be a fun and engaging session that will help IBM shape the future face of the mainframe



## The Real Evolution

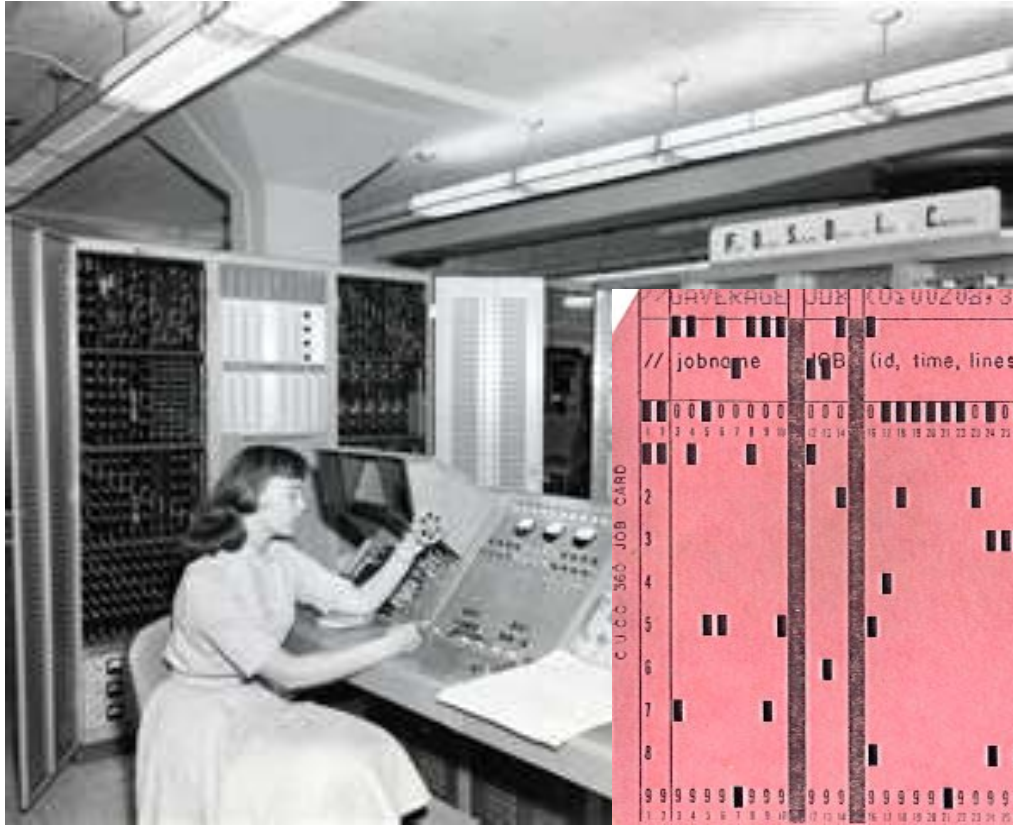


- **First there was Batch (1945-1968)**
  - A user would submit a program on a series of punch cards,
  - the computer would run the program at some scheduled time
  - results would be picked up hours or even days later
- **Then came the Command-line (1969-1983)**
  - Users enter commands on a text-based 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?**





A black and white photograph of a man in a dark suit sitting at a desk, operating a large, vintage electronic calculator or computer terminal. The machine has a complex interface with multiple display screens and numerous buttons. The man is viewed from the side, looking intently at the device. The setting appears to be an office from the mid-20th century.



**CUGC 360 JOB CARD**

CO=00208;S;1000;U;J.M.SOLUNA;SU=D;BIN=22

// jobname CUB (id, time, lines, cards), name [options] comments

CUGC 360

THE UNIVERSITY OF CALIFORNIA LIBRARY

## TSO and ISPF

Winsock 3270 Telnet - zos.kctr.marist.edu

----- TSO/E LOGON -----

Enter LOGON parameters below:                      RACF LOGON parameters:

Userid    ==> KC0

Password ==>

Procedure ==> IKJ    DSLIST                      ISP.SISPGUI                      Row 00005 of 00007

Acct Nbr ==> ACC                      Command ==>                      Scroll ==> 0005

Size       ==> 327                      Name                      Prompt                      Size                      Created                      Changed                      ID

Perform    ==>                      ISPGUINX

   ISPGUIOX

   ISPGUISX

Command    ==>                      \*\*End\*\*

Enter an 'S' before

   -Nomail

PF1/PF13 ==> Help

You may request speci

Clear       Erase E

Menu   Utilities   Compilers   Options   Status   Help

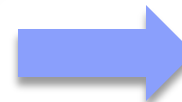
ISPF Primary Option Menu                      Connected

Option ==>

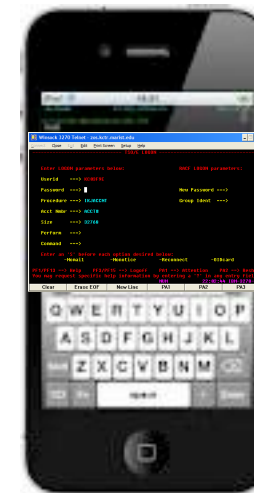
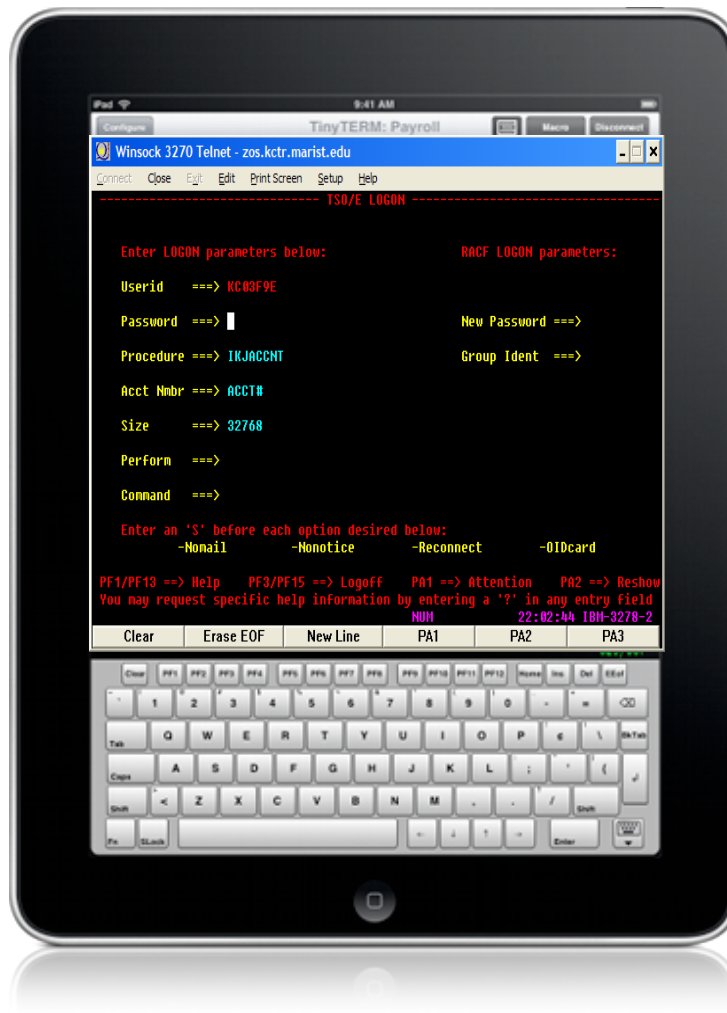
0	Settings	Terminal and user parameters	<	Calendar	>
1	View	Display source data or listings		December 2006	
2	Edit	Create or change source data		Su Mo Tu We Th Fr Sa	
3	Utilities	Perform utility functions			1 2
4	Foreground	Interactive language processing		3 4 5 6 7 8 9	
5	Batch	Submit job for language 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

And next, the face of the mainframe on iPads and iPhones

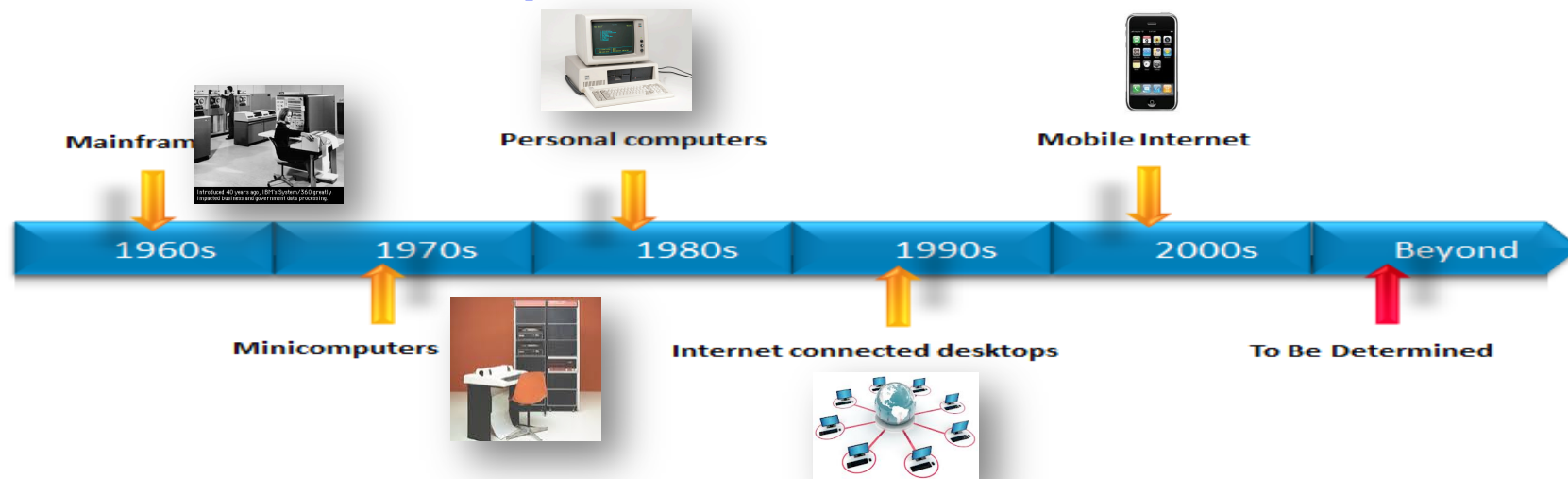


# The New TSO



Really???

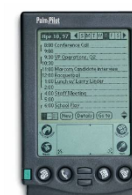
## A Little Historical Perspective



- 1. 1960's brought Mainframes (IBM)** - They were very powerful and adaptable. As Apple would do later on IBM owned the operating systems and hardware. They were expensive, cost millions of dollars and had thousands of customers -- typically only big business, banks and insurance companies, government, the military and scientific computing communities could afford them.
- 2. 1970's Minicomputers (DEC, Sun)** - These were less powerful, smaller, interactive, smaller and less expensive. They were used typically, by mid-size businesses and colleges. Tasks included process control, computer aided design, and they popularized e-mail. They also fostered the development of UNIX.
- 3. 1980's Personal Computers (Microsoft)** – First popularized by the introduction of the IBM PC in 1981. They established the IBM-Intel standard. The well documented architecture lead to manufacturing competition which quickly drove down cost. This was the first affordable computer for the consumer.
- 4. 1990's Desktop Internet (Google)** – Introducing the Browser to desktop and laptop computers opened the door to the Internet. Initially, in 1996, there were only 16 million users today that number is over 2 billion internet users and growing. The Internet not only connected millions of users, but it also provided free open access to a wealth of new resources.

## The Fifth Wave - Mobile Internet

- **Mobile 1.0:** First generation Smartphones like Trio and Blackberry. Windows XT tablet edition. These were adopted the by business and tech savvy consumers, but were either too complex or expensive to gain rapid adoption by the general public.
- **Mobile 2.0:** Was heralded by the introduction of the iPhone and later the iPad and Android devices. Key features included:
  - Always on, always connected to the internet,
  - A simple apps touch based interface that made operating them intuitive.
  - Apps development environments /stores for Apple and Android changed the way software applications were created and sold
  - Web browsers that scale with pinch and zoom
  - Long battery life
  - Now so affordable they are everywhere.





## IMHO: Mobile Internet



- **Mobile 1.0:** First generation Smartphones like Trio and Blackberry. Windows XT tablet edition. These were adopted by business and tech savvy consumers, but were either too complex or expensive to gain rapid adoption by the general public.
- **Mobile 2.0:** Was heralded by the introduction of the iPhone and later the iPad and Android devices. Key features included:
  - Always on, always connected to the internet,
  - Apps simplified the user experience and made using these devices even easier
  - Apps development environments /stores for Apple and Android changed the way applications were created and sold
- **Mobile 3.0:** ?
- Some trends already underway:
  - Competition is forcing prices lower will continue to put mobile in everyone's pocket
  - Tablets and smartphone seem to be overtaking laptops as the primary device for consumers to connect to the internet.
  - As cellular become faster and more pervasive cloud storage is making easier to leave now bulky laptops behind
  - **Everything is being connected to the internet – your TV, your car, your pacemaker, your home**

## Progression of the “User Experience”

Gen	User Experience for Sys Progs and others running machines
1.0	Punched cards and lots of waiting
2.0	Interactive terminals and less waiting
3.0	Terminal emulators on Windows, Mac OS/2 or Linux apps
4.0	Desktop applications/consoles for specialize tasks
5.0	Specialized applications in web browsers
6.0	For Smartphones and Tablets, terminal emulators some specialized applications for for the most part, GUIs inside web browsers

	User Experience for consumers
1.0	“Green screen” or later Green screen with multiple colors
2.0	Windows, Mac, OS/2, or Linux GUI apps
3.0	Mostly GUIs inside a browser – some native apps running on iOS, Android, Windows, Linux, and so on

# What IBM is Doing Today...





# 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](#)

# System z – UI Innovations



## IBM Mobile Systems Remote (with System z extension)

- iOS: <https://itunes.apple.com/us/app/ibm-mobile-systems-remote/id418366483?mt=8>
- Android: <https://play.google.com/store/apps/details?id=com.ibm.research.ibmremote>
- Web site: [http://ibmremote.com/IBM\\_Mobile\\_Systems\\_Remote](http://ibmremote.com/IBM_Mobile_Systems_Remote)

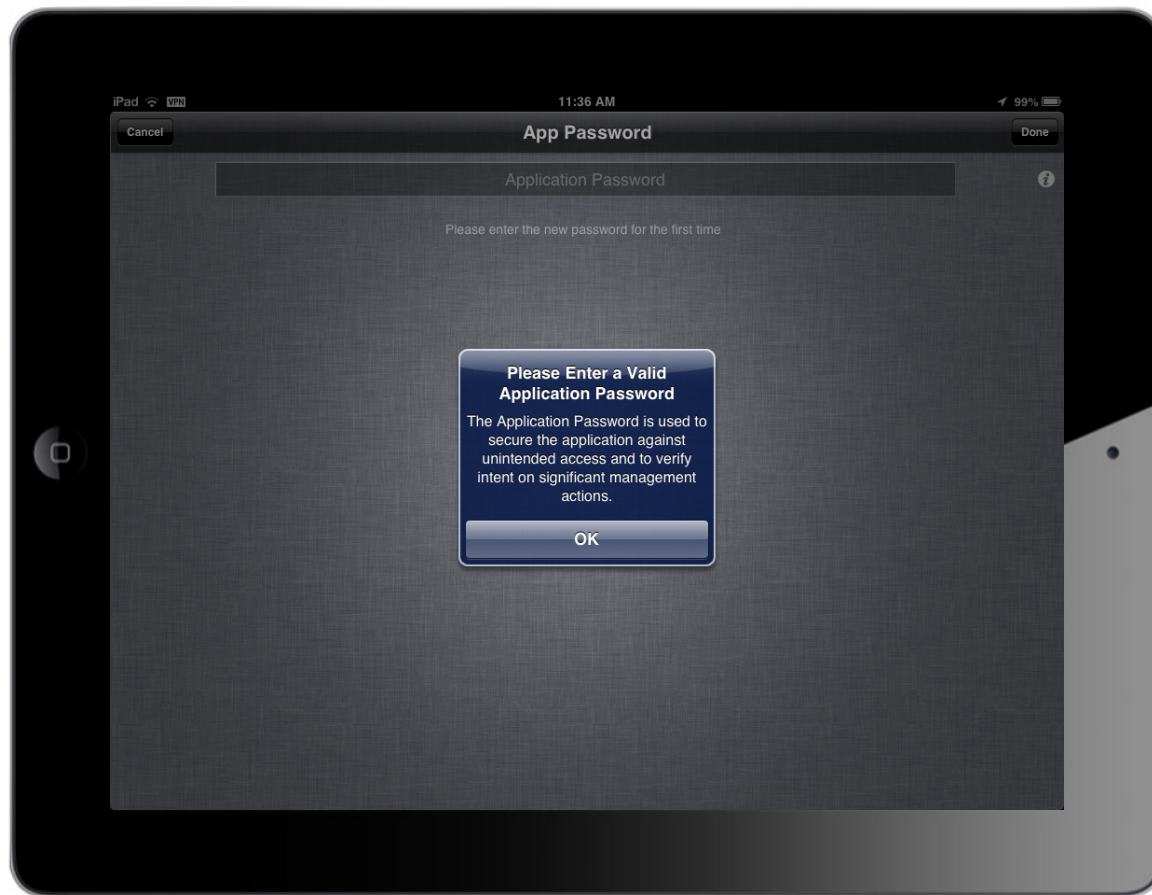


## Some important points

- Experimental app provided “as is” by IBM Research
- Requires IBM zEnterprise 196 with SE’s at firmware level 2.11.1 or above
- Allows “monitoring” of System z, but not “management”

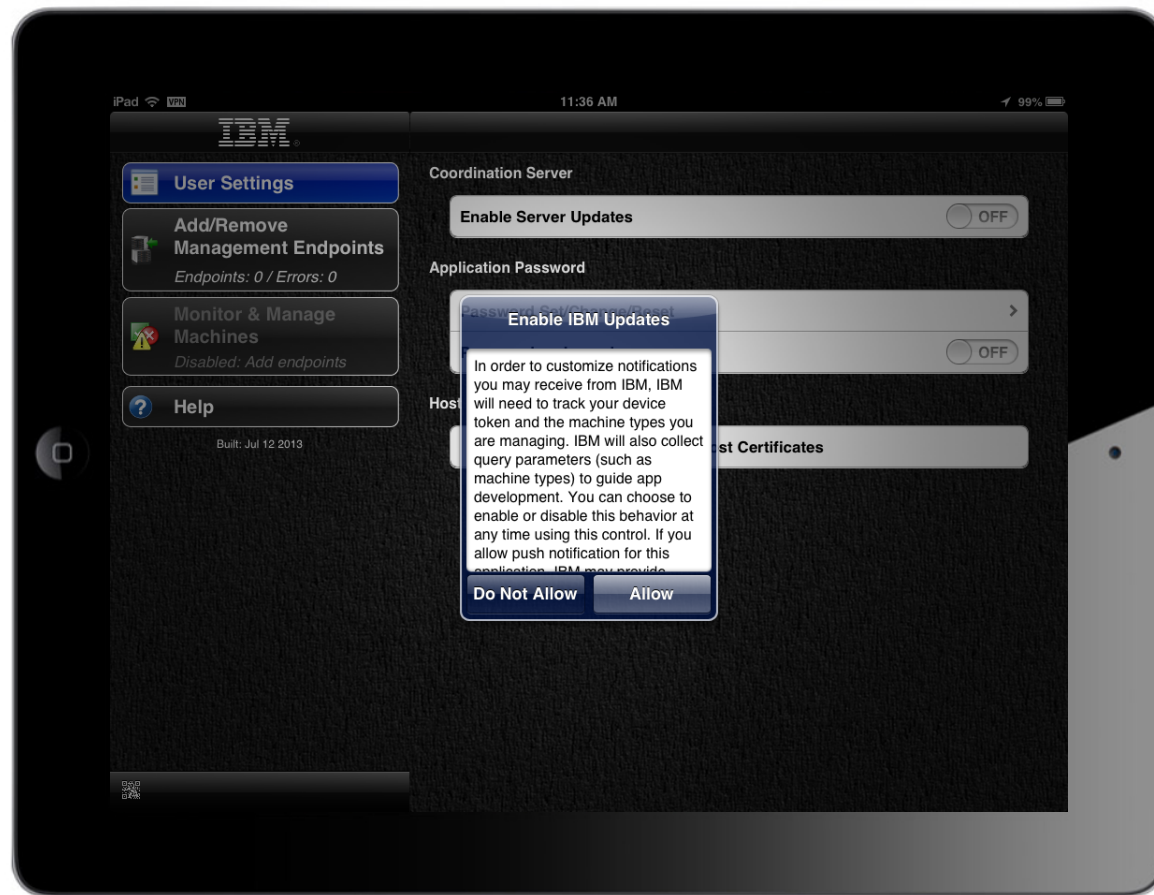


## First use of the app



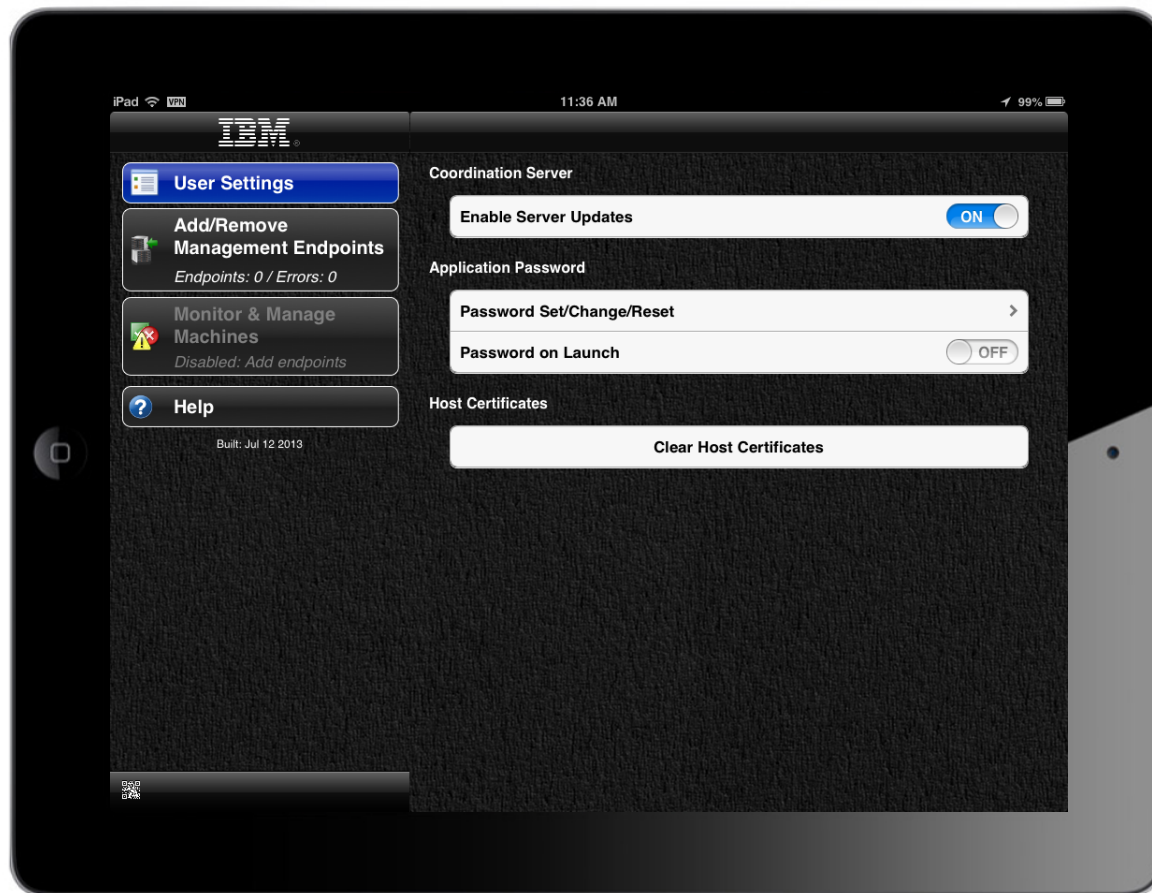
- Enter an application password

## First use of the app



- Enable IBM updates (or not)

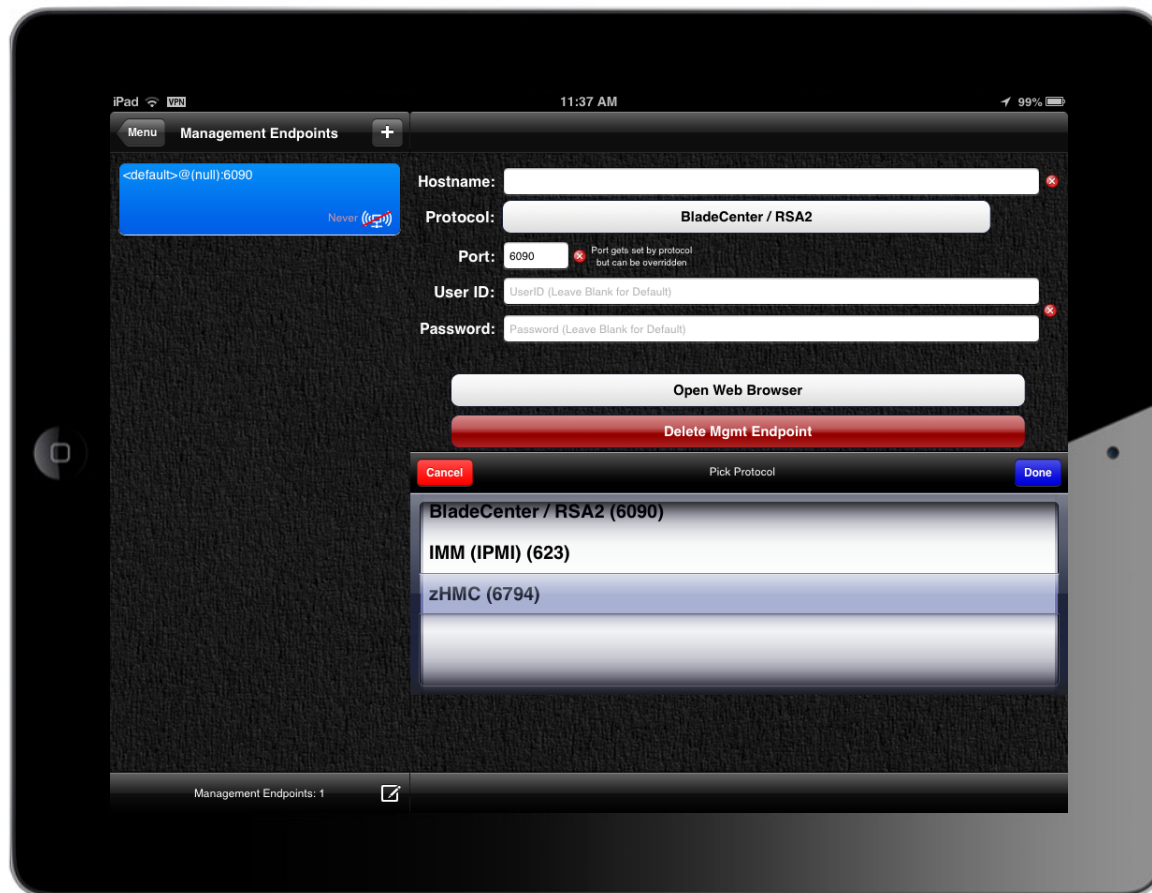
## First use of the app



- Select “Password on Launch” option, if desired



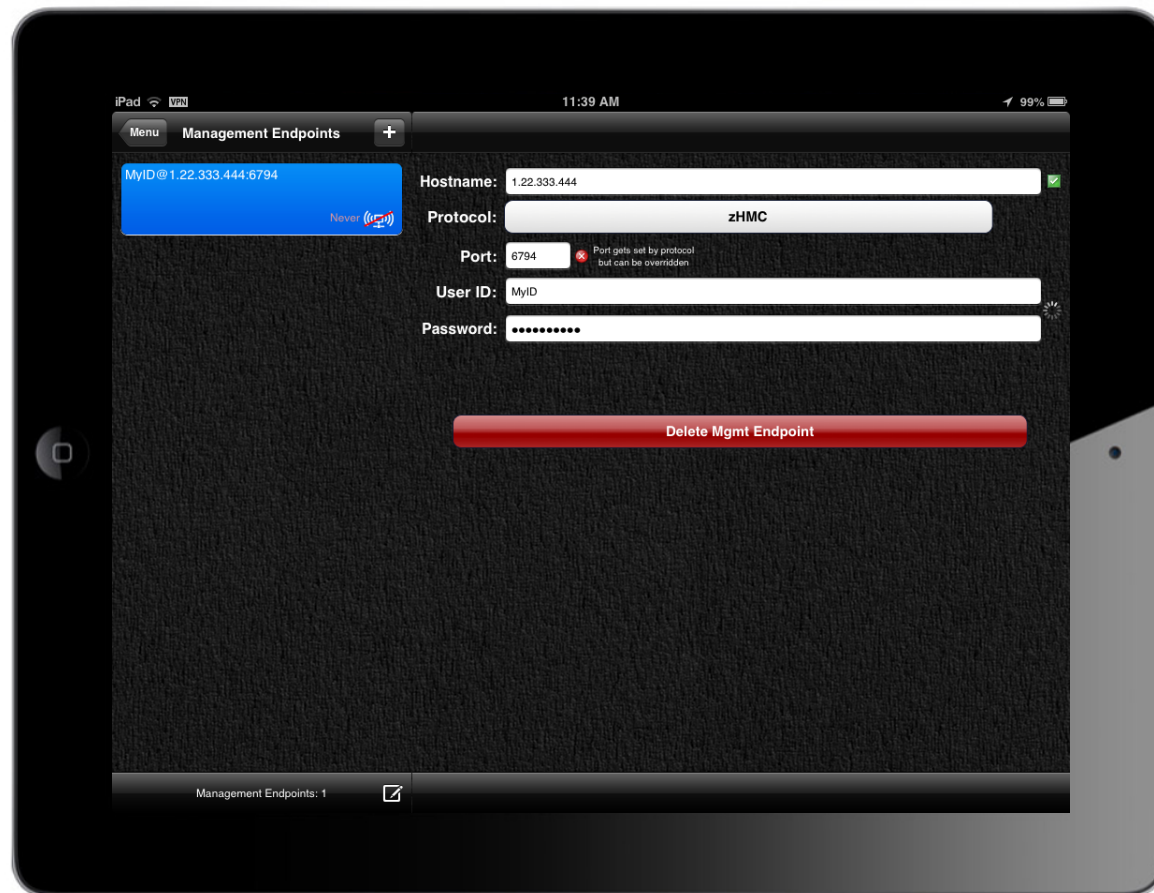
## First use of the app



- Select zHMC as the management endpoint

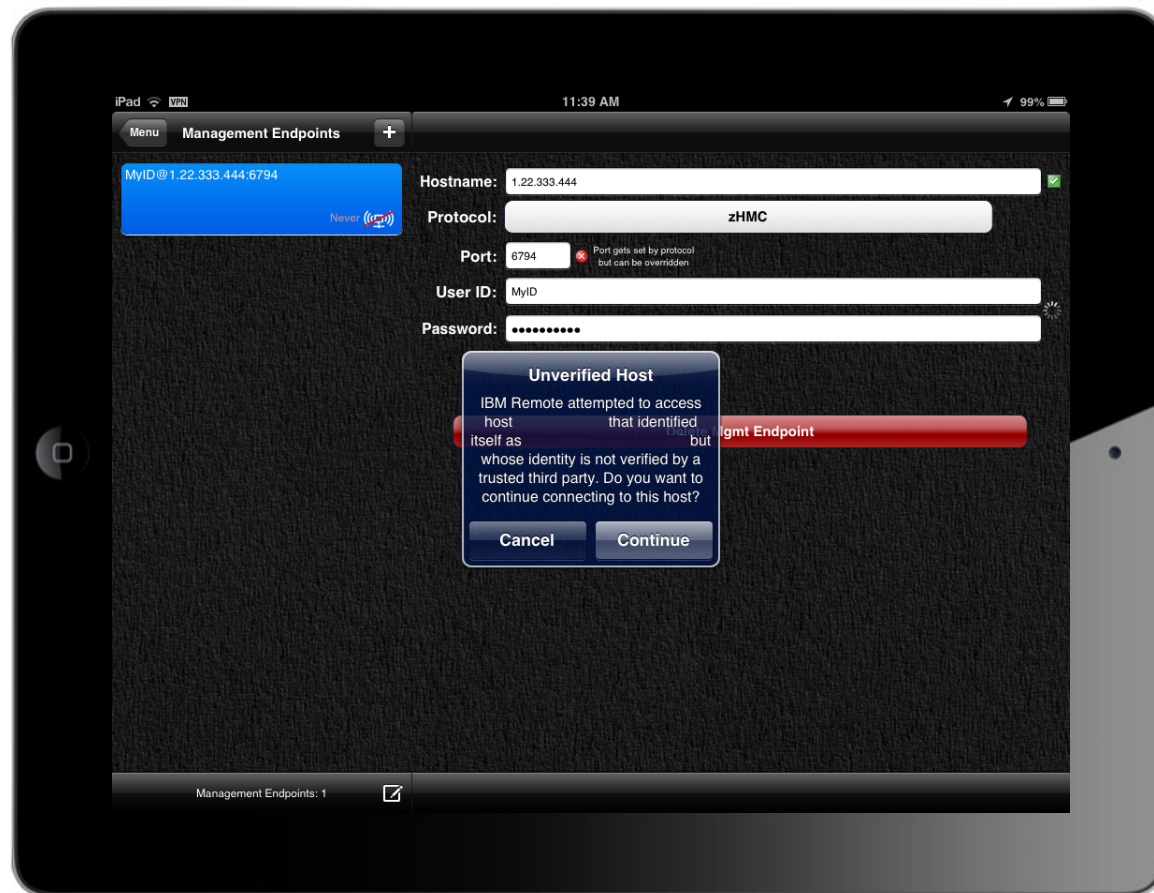


## First use of the app



- Enter a valid hostname, user ID, and password

## First use of the app



- Accept the host certificate

## First use of the app



- Notice the addition of the management endpoint

## Live demonstration of the app



IBM z/OS Management Facility

Welcome debug1

Log out

IBM

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...

Workload Management

Help

Overview

Service Policies for Sysplex

Service Definitions

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.

# 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*





## Systems Programmers of Tomorrow

- Have never known a world without computers, the Internet, smartphones tablets and visual applications
- Don't know what a "Green Screen" is
- There's a good chance, they don't know what a "Mainframe" is or if they do know, they probably think they are don't exist anymore.
- Do pretty much everything with "APPS"
- Are constantly connected and in contact with their peers.
- Have the expectation that all computers are "walk up and use" – After all, by the time they where 2 years old had "learned how to use one".

### Never Fear

Once they learn about mainframes, they will learn and respect the:

Efficiency

Power

Resilience

## Things to Think About – How will technology influence the UI of tomorrow?

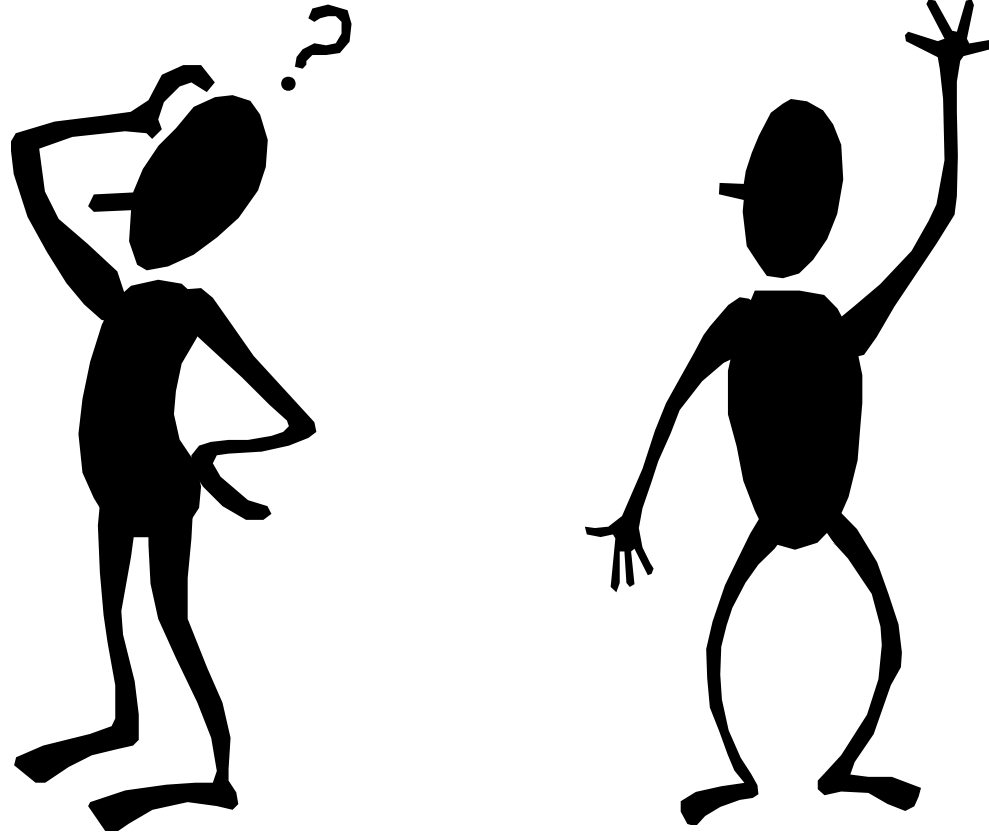
- The 2<sup>nd</sup> generation Smart Phone and Tablet hardware along with advances in cellular and networking have brought us
  - Portability
  - Always online
  - Always connected
  - Long battery life
  - A very powerful computer in your pocket.
- The I OS, Android, Windows and other Mobile platforms brought
  - APPS! No heavy clients with office suites
  - Data and apps in the Cloud
  - Pinch and zoom
  - Gesture control
  - Voice recognition
  - Cameras
  - Video cameras and players
  - GPS
  - Facial recognition
- Next ....



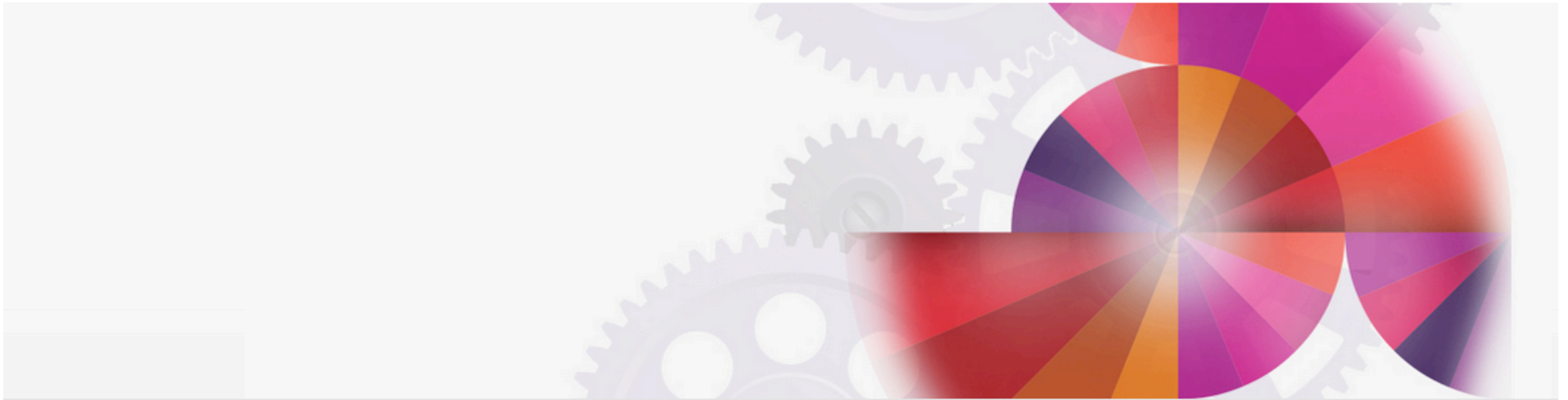
## Discussion points

- 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?



# Appendix – Additional Sessions on z/OS MF



## 13623: z/OS Ask the Experts Panel

### 13623: z/OS Ask the Experts Panel

Wednesday, August 14, 2013: 6:00 PM-7:00 PM  
Room 312 (Hynes Convention Center)

Speakers: [Mark A. Brooks](#)(IBM Corporation) , [Greg Daynes](#)(IBM Corporation) , [Anuja Deedwaniya](#)(IBM Corporation) , [Harv Emery](#)(IBM Corporation) , [Garth Godfrey](#)(IBM Corporation) , [David Jones](#)(IBM Corporation) , [Patty Little](#)(IBM Corporation) , [Jerry Ng](#)(IBM Corporation) , [Peter Relson](#)(IBM Corporation) , [Alan Sherkow](#)(I/S Management Strategies, Ltd.) , [Marna Walle](#)(IBM Corporation) , [Steve Warren](#)(IBM Corporation) , [Tom Wasik](#)(IBM Corporation) and [Cheryl Watson](#)(Watson & Walker, Inc.)

This is your session. It would be a shame if you came to SHARE with a question and left without an answer. Any questions or concerns not dealt with earlier in the week are fair game here. Priority will be given to those questions submitted in advance to a project ribbon wearer. We will research these through IBM and other sources, if we can. After that, the floor will be open to any question. A variety of attendees, including IBM representatives, will be on hand to offer assistance. This is your last opportunity this week to pose a question to a large group of fellow z/OS aficionados, including some MVS veterans. Your return ticket to SHARE may depend on your ability to show you got your questions answered. Do not miss out on this great opportunity.

Tracks: [zNextGen](#)



## z/OSMF Configuration Made Easy

### 14247: z/OSMF Configuration Made Easy

Wednesday, August 14, 2013: 8:00 AM-9:00 AM

Room 313 (Hynes Convention Center)

Speaker: [Anuja Deedwaniya](#)(IBM Corporation)

#### Handouts

- [z/OSMF V2R1 Configuration](#) (1.2 MB)

The IBM z/OS Management Facility (z/OSMF) provides a web-based graphical interface for system programmers to manage z/OS. z/OSMF V2.1 provides a new packaging for the product. Come and learn about the new z/OSMF 2.1 product package with an improved configuration experience with the embedded runtime. The speaker will share the setup requirements including the scripts and response/override files to configure the required environment.

This session will be useful to systems programmers and their managers who will be using (or are considering using) the z/OS Management Facility. Information from early user experiences, including hints and tips, will also be included in this session.

Tracks: z/OS Systems Programming and zNextGen



# 14253: Diagnosing Problems on my z/OS System - New Technologies

## 3: Diagnosing Problems on my z/OS System - New Technologies

ay, August 15, 2013: 9:30 AM-10:30 AM

312 (Hynes Convention Center)

er: [Anuja Deedwaniya](#)(IBM Corporation)

part of IBM's focus on z/OS simplification and resiliency, a number of new functions have been delivered S Problem Determination (PD) tasks and improve system resiliency. The speaker will discuss features a Predictive Failure Analysis (PFA) -- simplifying identification of 'soft' failures; Runtime Diagnostics (RTD) analyzing a sick system upon request to identify suspicious system symptoms; zAware - identifying system based on message traffic and machine learning; z/OS Management Facility (z/OSMF) Incident Log - collecting system problems; and position these relative to other system management applications

cks: [z/OS Systems Programming](#)

are |    

## 14264: z/OSMF Roundtable



### 14264: z/OSMF Roundtable

Thursday, August 15, 2013: 12:15 PM-1:15 PM

Room 313 (Hynes Convention Center)

Speaker: [Anuja Deedwaniya](#)(IBM Corporation)

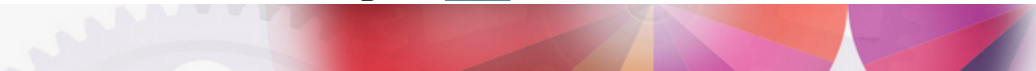
This Roundtable session for IBM z/OS Management Facility will further build upon the earlier SHARE sessions on z/OSMF Overview and z/OSMF configuration and setup. Feedback on the current focus areas for system programmers is highly valued and encouraged.

This interactive forum will allow for an open discussion on additional focus areas to help make the system programmer's life easier and more productive. Attendees should bring their questions regarding z/OSMF to this interactive discussion.



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See more of Project: [MVS Core Technologies](#)  
See more of Program: [MVS](#)



## z/OSMF Hands on Lab

### 15: z/OSMF Hands-On Lab (Redux)

ay, August 16, 2013: 11:00 AM-12:00 PM

m 202 (Hynes Convention Center)

aker: [Anuja Deedwaniya](#)(IBM Corporation)

andouts

[z/OSMF Hands on Lab](#) (17.5 MB)

The z/OS Management Facility (z/OSMF) provides a web-based graphical interface for system programmers on z/OS. This hand on lab will give an opportunity to learn about the functions and features in z/OSMF first hand. Attendees can navigate through the various tasks to see how it can help them in day to day z/OS management.

This session will be useful to systems programmers and their managers who will be using (or are considering using) the z/OS Management Facility.

[Share](#) |    



*Thank You*

*Gracias*  
Spanish

*Merci*  
French

*Obrigado!*  
Brazilian  
Portuguese

*Bedankt*  
Dutch

*Vielen*  
**Dank**  
German

*По-русски*  
Russian

*Grazie*  
Italian