



The Old is New Again
Engineering Security in the Age of Data
Access from Anywhere

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#### **AGENDA**



#### History



This part of the presentation discusses the history of the security landscape from an IBM Mainframe perspective, specifically Identity & Access Management.

#### **Today**



This part of the presentation discusses the challenges enterprises face today with implementing security within their enterprise given the diversity of platforms and application choices.

#### **Design Considerations**



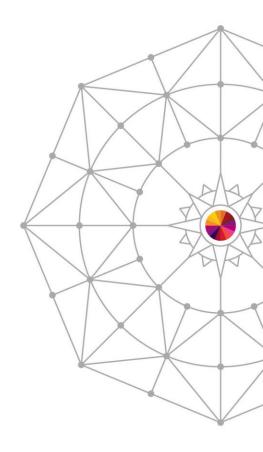
This part of the presentation discusses some security design considerations as your enterprises adopt mobile technology and cloud services.





Do we ever learn from history?

## **HISTORY LESSONS**





#### **Latest Buzz Words**





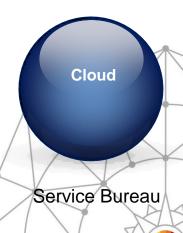




z/VM



Job Scheduler





- 1. It sounds so familiar ??
- 2. I heard this before?
- 3. Oh I remember!
- 4. It is that old Mainframe!





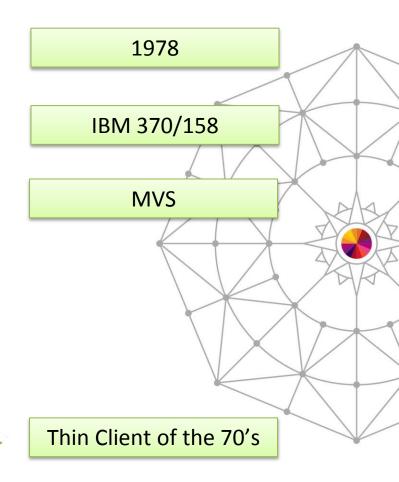
## **History – Remember When?**





Private Cloud of the 70's



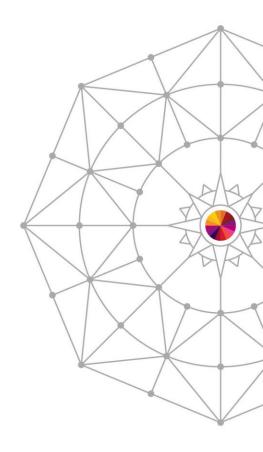






Lessons from the past

# IDENTITY & ACCESS MANAGEMENT

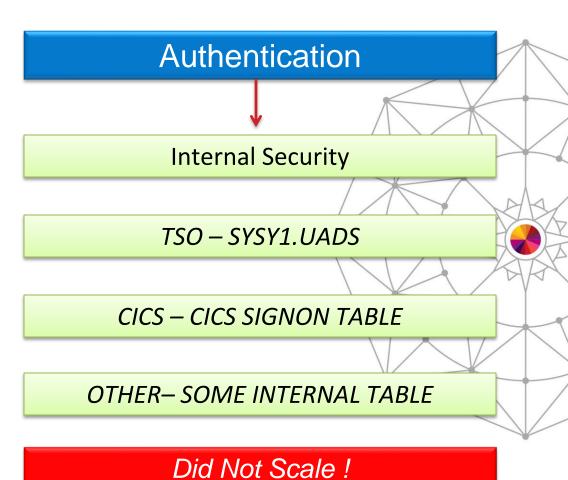




### **History of I&AM**





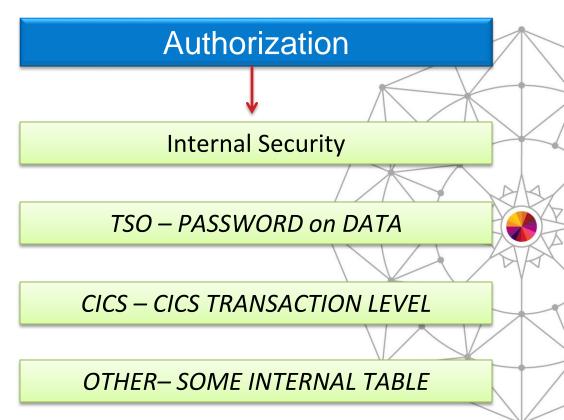




### **History of I&AM**





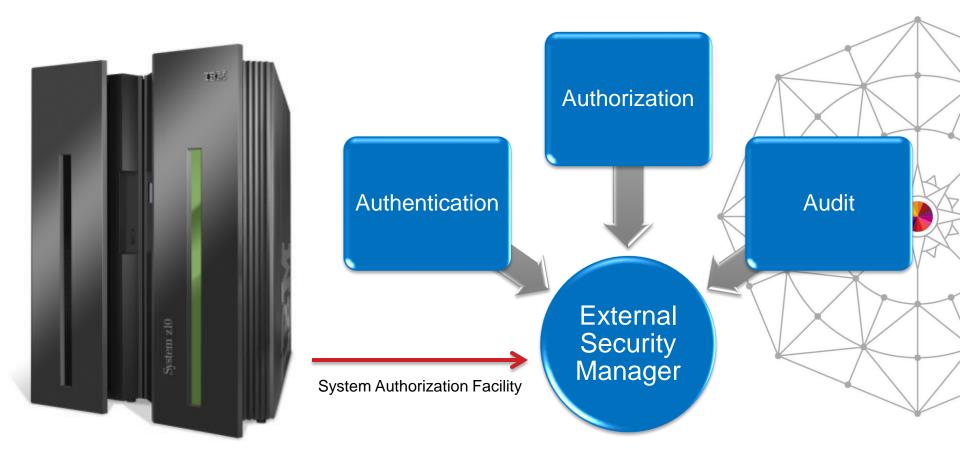


Did Not Scale Either!



## **History of I&AM - Solution**



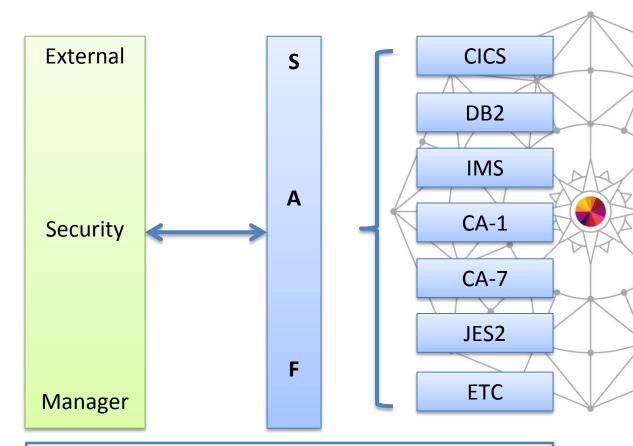




## **History of I&AM – End State**







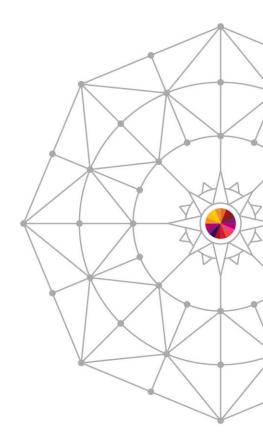
Centralized Authentication, Authorization and Audit





Potholes on the I&AM road to success

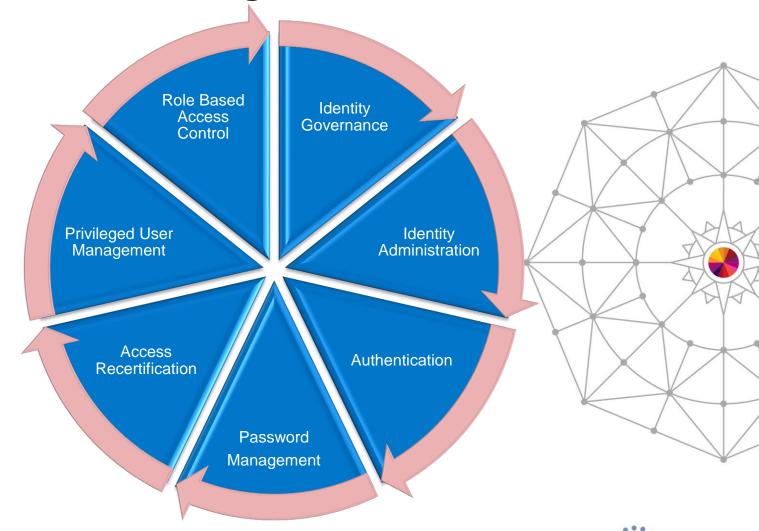
# ENTERPRISE I&AM CHALLENGES







### **Identity & Access Management Overview**



## The Changing Technology World



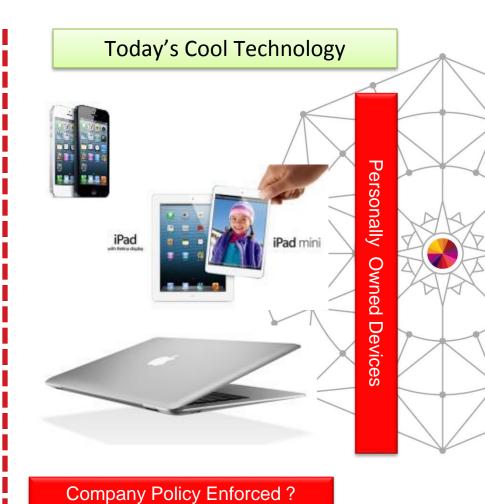
#### Yesterday's Cool Technology

Company Owned Devices





Company Policy Enforced!

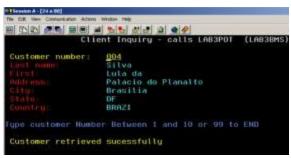


## **The Changing Application World**



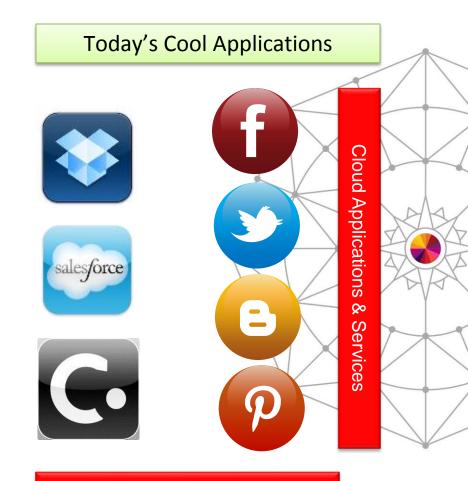
#### Yesterday's Cool Applications

Company Developed Apps





IAM Relatively Easy



IAM Becomes Complex



#### **Your IT Environment**





Mainframe







Distributed



Mobile



Challenge: how to implement I&AM in a diverse IT environment?



## **Authentication Challenges**



















Cloud

Mainframe Distributed Mobile

#### **Directory Infrastructure Choices**

RACF, ACF2, TSS

AD, NIS, LDAP

AD, LDAP

ADFS, SAML?

#### Challenges

Too Many ID's

**Too Many Passwords** 

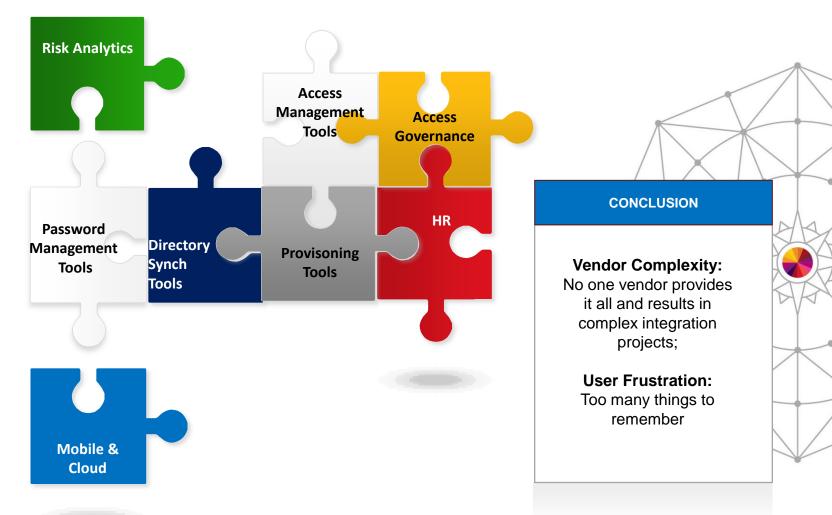
**Audit Challenges** 

Increased Helpdesk Calls



#### **End Result - IAM Puzzle**









**Design Considerations** 

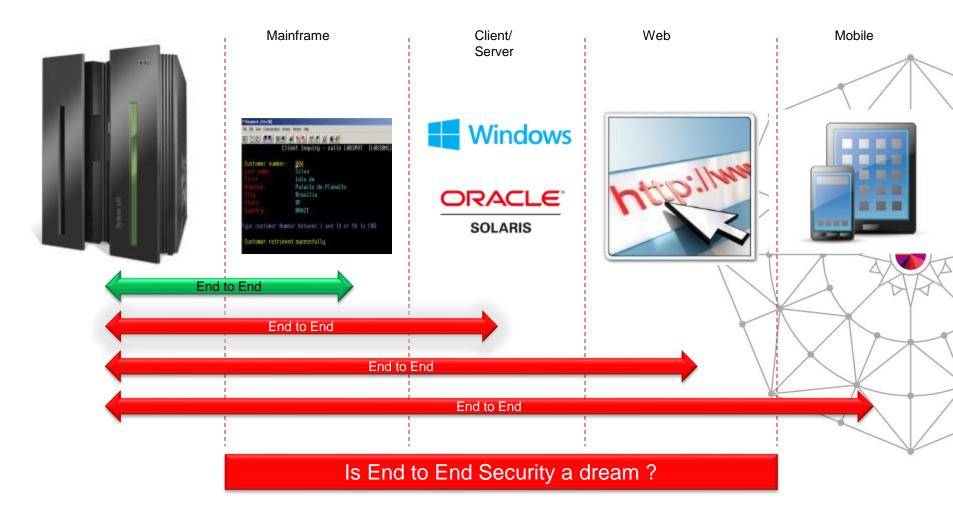
## **SECURITY ENGINEERING**







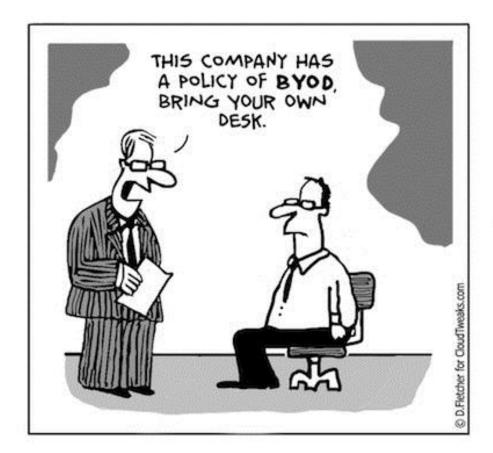
#### **E2E Security Challenges with Data Access From Anywhere**

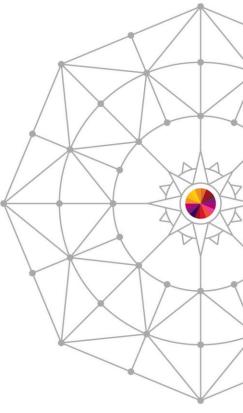






#### Mobile - BYOD

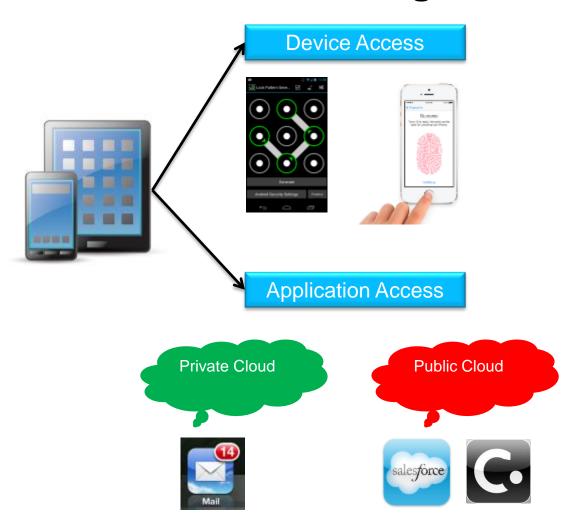






## **Mobile – Authentication Challenges**









## Cloud – Authentication Challenges

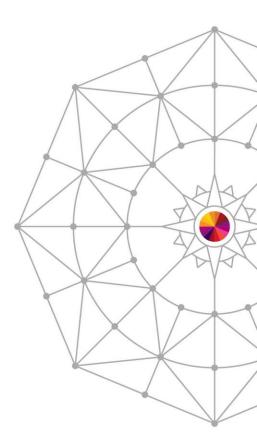








- How do we authenticate to a cloud service ?
  - Leverage existing authentication technology (ADFS etc.)
  - What is the impact to our user (de) provisioning processes?
  - Does the Cloud Provider supports Identity Federation?
  - Does the Cloud Provider allows for "delegated" authentication?





## **Design Consideration 1 – Centralized Security Management**





#### 1. Centralized Security Management:

- Centralized Authentication (Private and Public Cloud, Mobile, etc.)
- Centralized Authorization (if required)

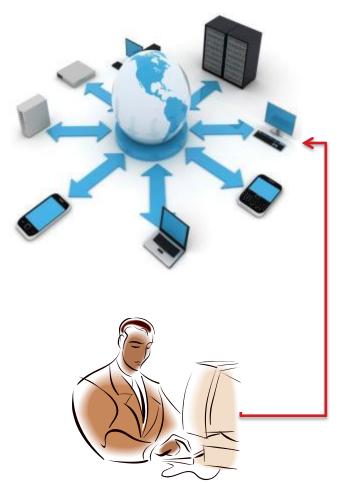
#### 2. Leverage (existing) Security Solutions for:

- User Provisioning
- Role Based Access Control (RBAC)
- Compliance Reporting
- Security Monitoring
- 3. Achieve <u>operational efficiency</u> and <u>reduce</u> capital and operational <u>expense</u> by leveraging existing investment versus new investments.



## **Design Consideration II – Centralized Password Management**





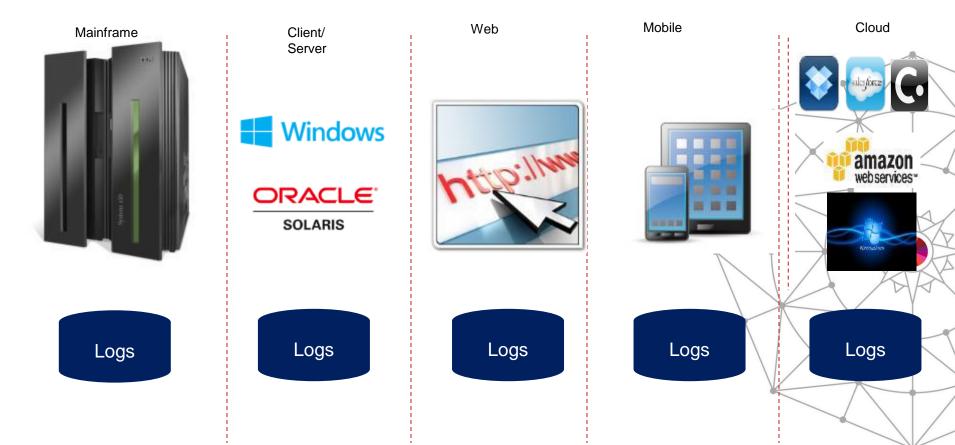
- 1. User registers their accounts for various platforms using a self service portal to link his/her accounts together.
- 2. Passwords will be synchronized for all accounts;
- 3. User will log-on to various applications leveraging one password going forward;
- 4. All User authentication request will now be authenticated and recorded on one platform and can be reported on leveraging existing reporting and monitoring tools.

Result: Reduced Sign-On



## Design Consideration III – Logging, Monitoring & Reporting





To understand who did what, where and when and how, the logging may need to move to the application itself?





### **Summary**



Do not forget what history taught us about security , as we continue to make the same mistakes.

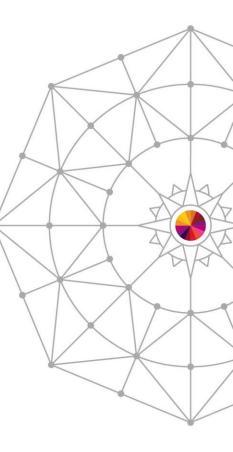


Consider the impact to your security architecture, operations and processes when you implement new capabilities like mobile, cloud etc. as re-engineering is always more expensive.



Get ready for I&AM Cloud Services, sometimes referred to as Bring Your Own Identity.

Companies like Facebook and SALESFORCE want to become your Identity Provider.





### **Questions & Answers**









