

# Cloud Computing and Identity

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## Defining It All

- Cloud Computing
- Identity

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## What's The Problem?

- The Identity Problems for Cloud Computing

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## And A Couple Alternative Solutions:

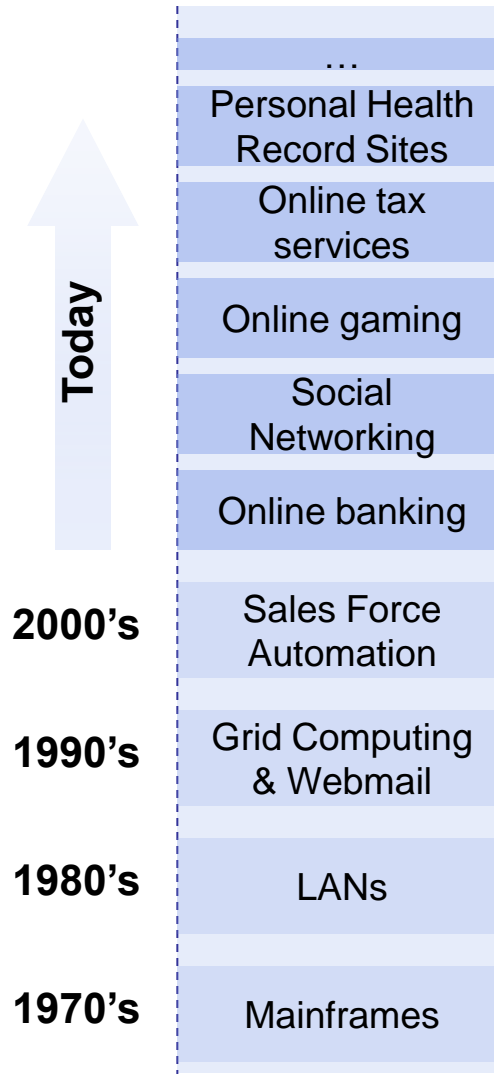
- For Enterprise Application
- For Consumer Application
- Case Study



# A Brief History of Time



**A quick look at some relevant milestones that brought us to 2010**

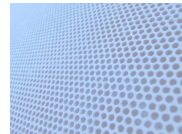


# Defining Cloud Computing

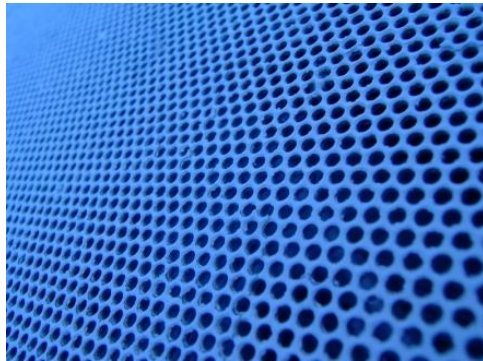


## Cloud Computing Is NOT

Grid Computing



## Grid Computing



**Distributed computing that uses a cluster of networked computers, acting in concert to perform a task**

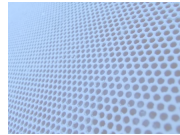


# Defining Cloud Computing



## Cloud Computing Is NOT

Grid Computing



Utility Computing



## Utility Computing



**Virtualized computing resources, such as computation and storage, offered as a metered service**



Sun Grid Service



Elastic Compute Cloud

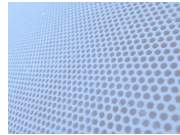


# Defining Cloud Computing



## Cloud Computing Is NOT

Grid Computing



Utility Computing



SaaS



## Software-As-A-Service



**Delivery method of applications over the web using utility computing and multi-tenant architecture**

salesforce.com®  
Success On Demand.

Google™  
Apps

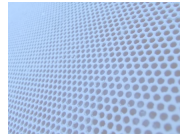


# Defining Cloud Computing



## Cloud Computing Is NOT

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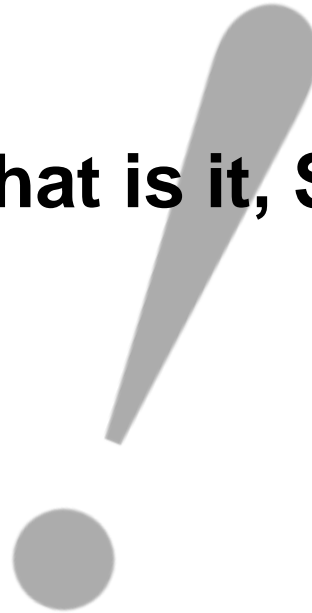
Utility Computing



SaaS



Then what is it, Slawek?

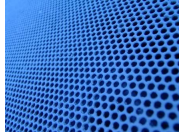


# Defining Cloud Computing



## Cloud Computing Is

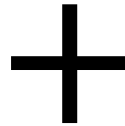
Grid Computing



Utility Computing



SaaS



Storage Infrastructure

Identity Infrastructure

Security Infrastructure

Application Integration & Mash-ups

Business Intelligence

Business Process Management



# Definition of Cloud Computing

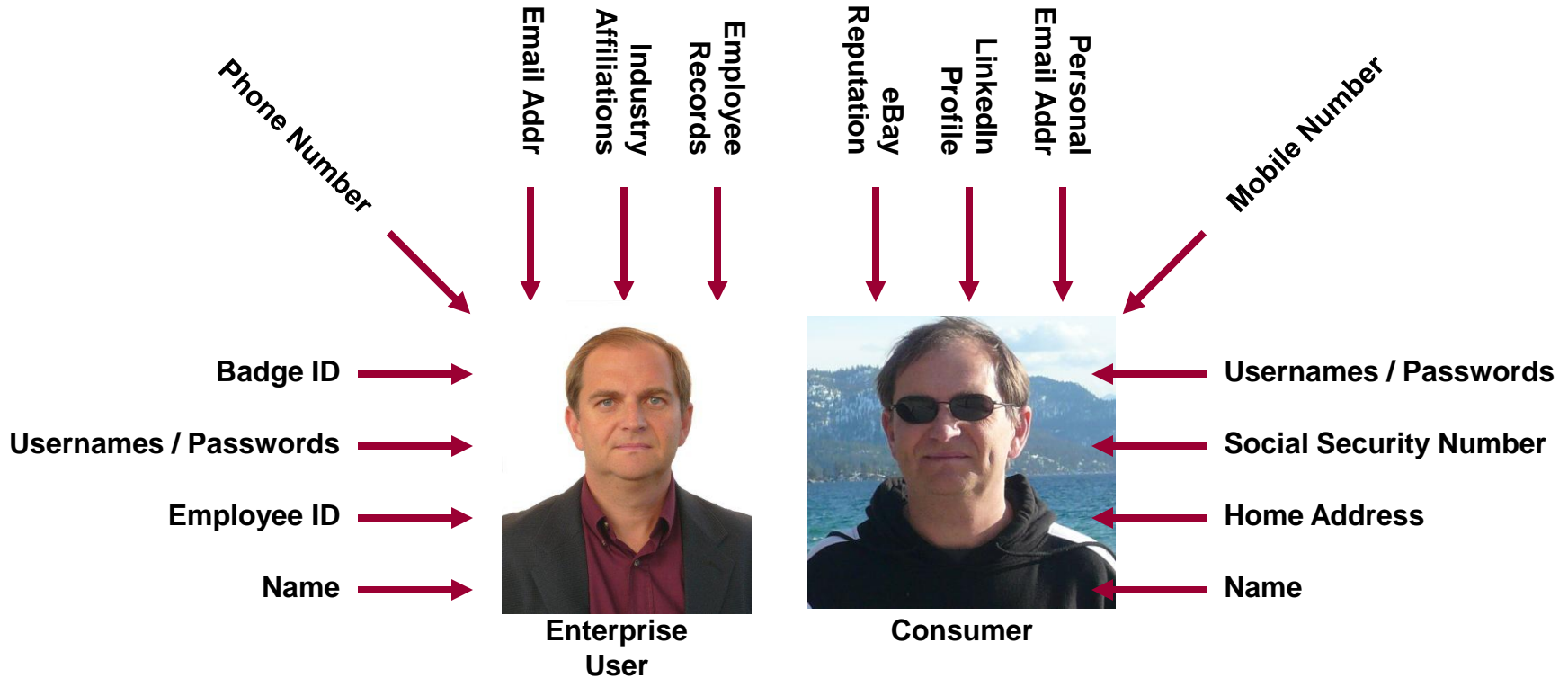


So, Cloud Computing is an emerging technology that:

- utilizes concepts of grid and utility computing
- to provide application services over the internet
- along with all associated functions available with regular in-premise implementations
- *and may work in conjunction with in-premise resources*



# A Minute to Define Identity



So, my identity is a set of claims I make about myself, that others make about me, and personal attributes that qualify uniqueness



# Definition of Digital Identity



In other words, a Digital Identity is:

- a unique digital representation of a digital subject
- that may be human or non-human (i.e. networked devices)
- described by a finite, but uncapped number of identity attributes
- and may be provided with a level of assurance



# The Identity Problem of Cloud Comput



30%

**Of Enterprises and SMBs  
view Security as a top  
concern in SaaS<sup>1</sup>**

72%

**believe Identity and  
Access Management is  
the key Security issue<sup>2</sup>**

78%

**Of consumers want more  
control over securing  
their identity<sup>3</sup>**



# The Identity Problem of Cloud Comput



## CC Application Providers

“ I want easy accessibility to drive high-adoption and usage



## Enterprise User / Consumer

“ I want easy and secure sign-up / access to apps and high-value features

## Large Enterprise / SMB

“ I want security, low TCO, employee satisfaction and fast deployment



# The Solution... Creates Problems



Yes, it's that term we all love: **Federated Identity**

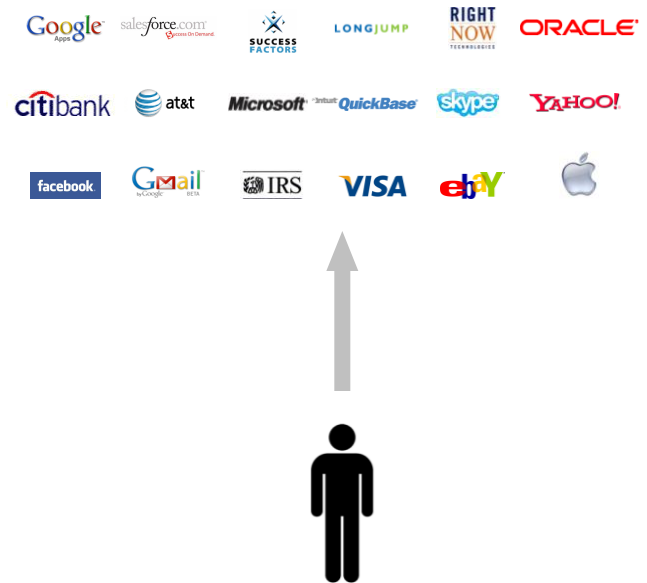
Takes us from here...

multiple individual identities



To here.

single identity



# The Solution... Creates Problems



Yes, it's that term we all love: **Federated Identity**

Who Tried?



Who's Trying?





# The Solution... Creates Problems

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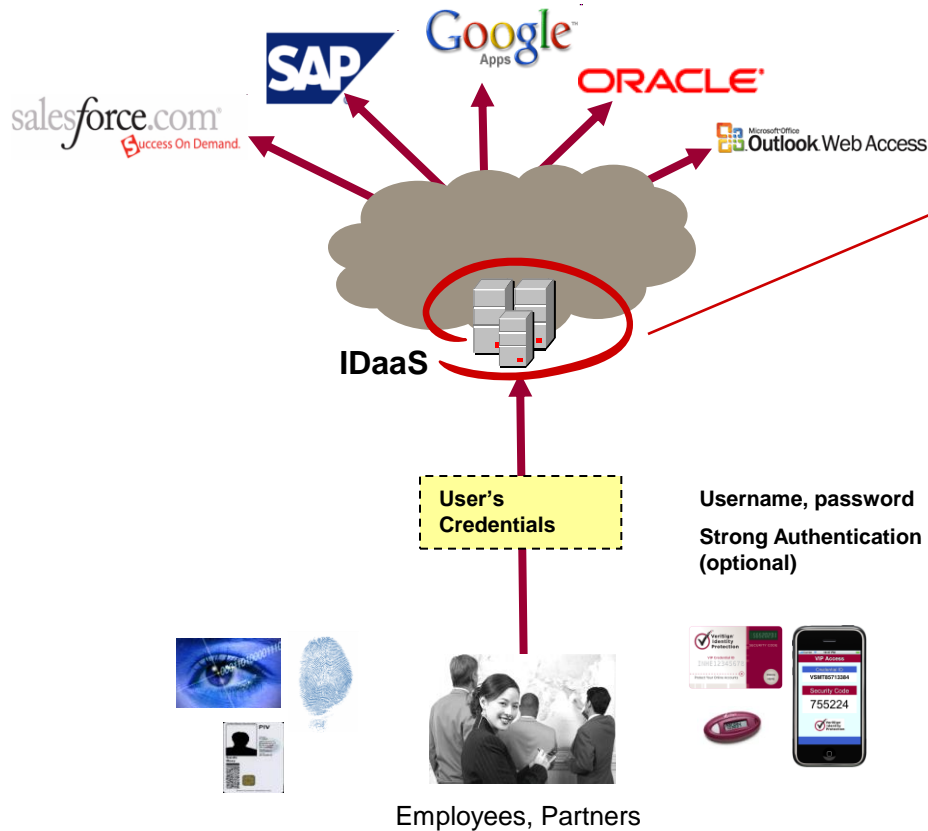
Yes, it's that term we all love: **Federated Identity**



**Will we overcome, Slawek?**



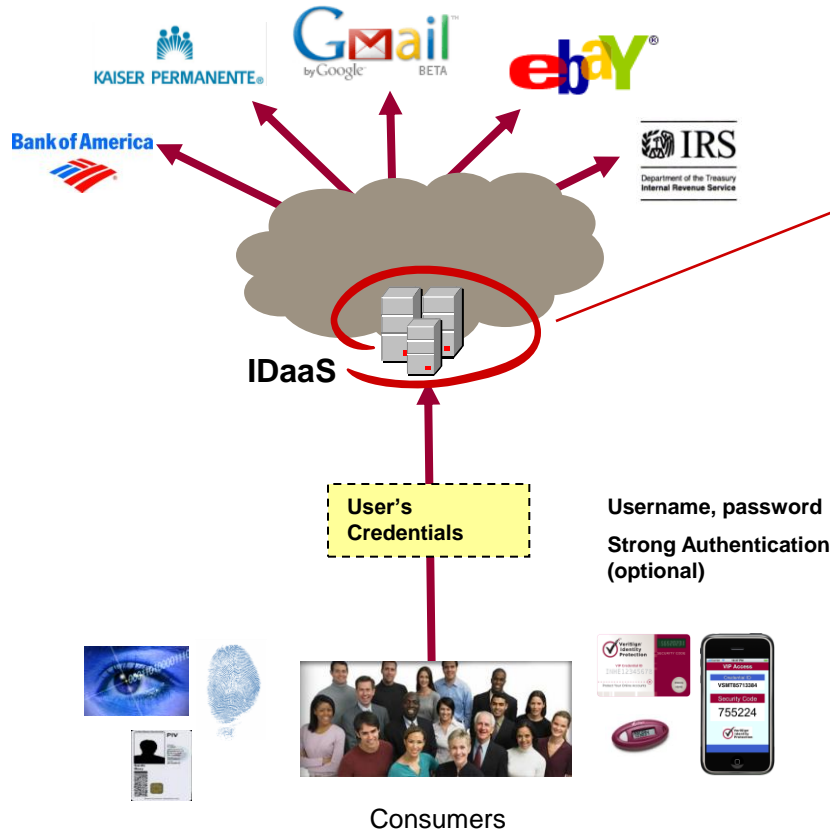
# Option: Identity-as-a-Service for Enterprise



- Single ID Provider to manage identities across multiple SaaS applications
- Authorization, Access Management, Authentication and Security
- Simple user experience
- Low TCO
- Trusted Third Party
- High Availability



# Option: Consumer Identity-as-a-Service

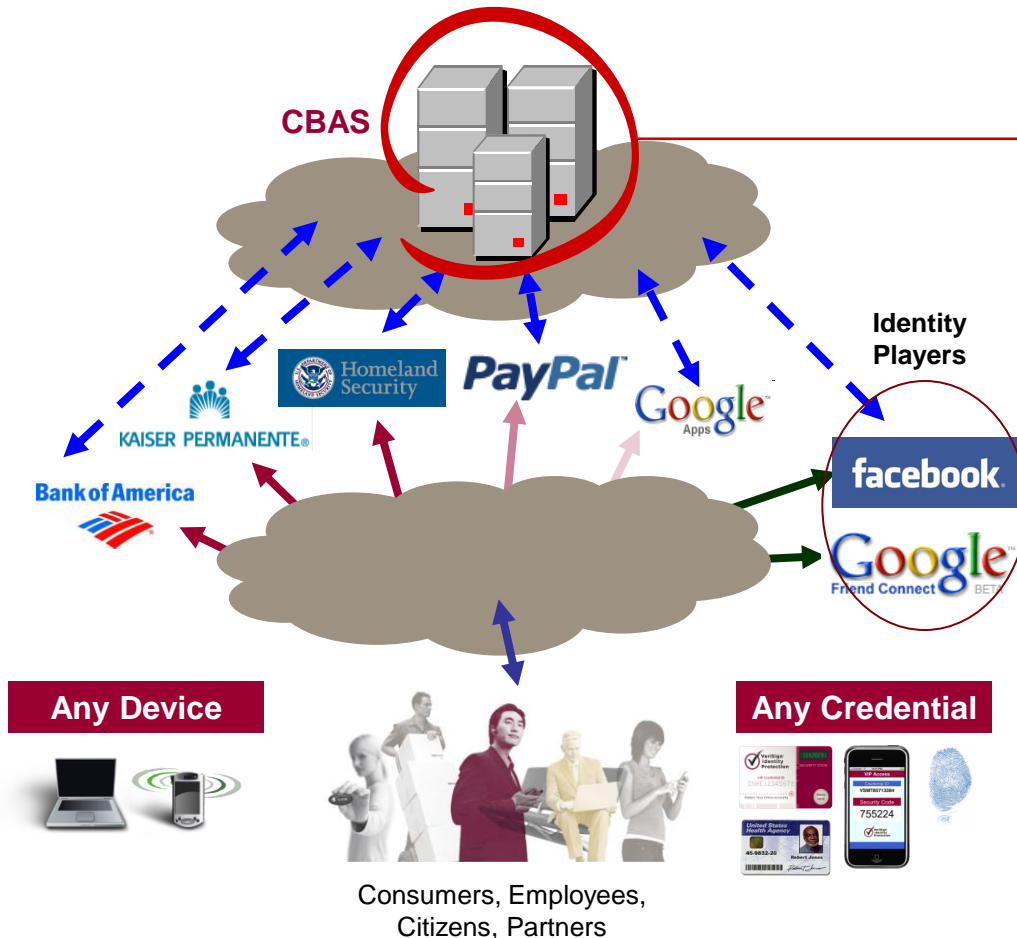


- Single portal to manage identities across multiple consumer websites
- Stand-In for Federated ID
- Very simple user experience
- Security
- Trusted Third Party
- High Availability



# So Which Option Will Take To the Clouds First?

Still 'TBD' ... but no matter which option does,  
security and authentication will remain key for success



- Cloud-Based Authentication Service (CBAS)
- Must prevent keys-to-the-kingdom first
- Support for multiple types of credentials
- Need a Trusted Third Party
- Need simple implementations for consumers & enterprises
- Need Availability – always up!

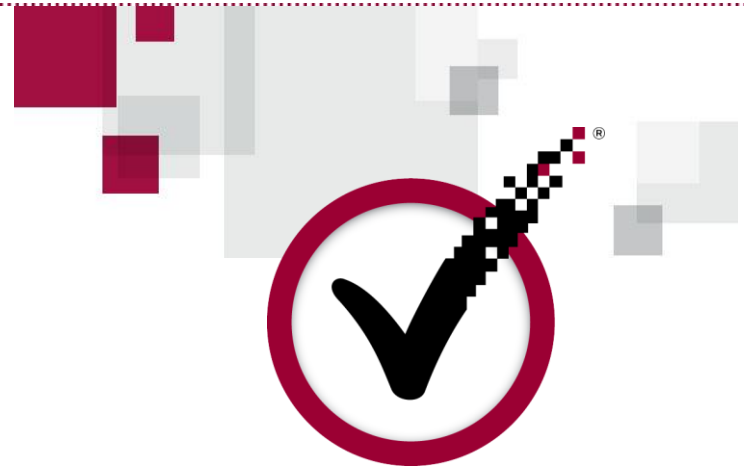




**SuccessFactors**

Business Execution Software

SaaS Case Study





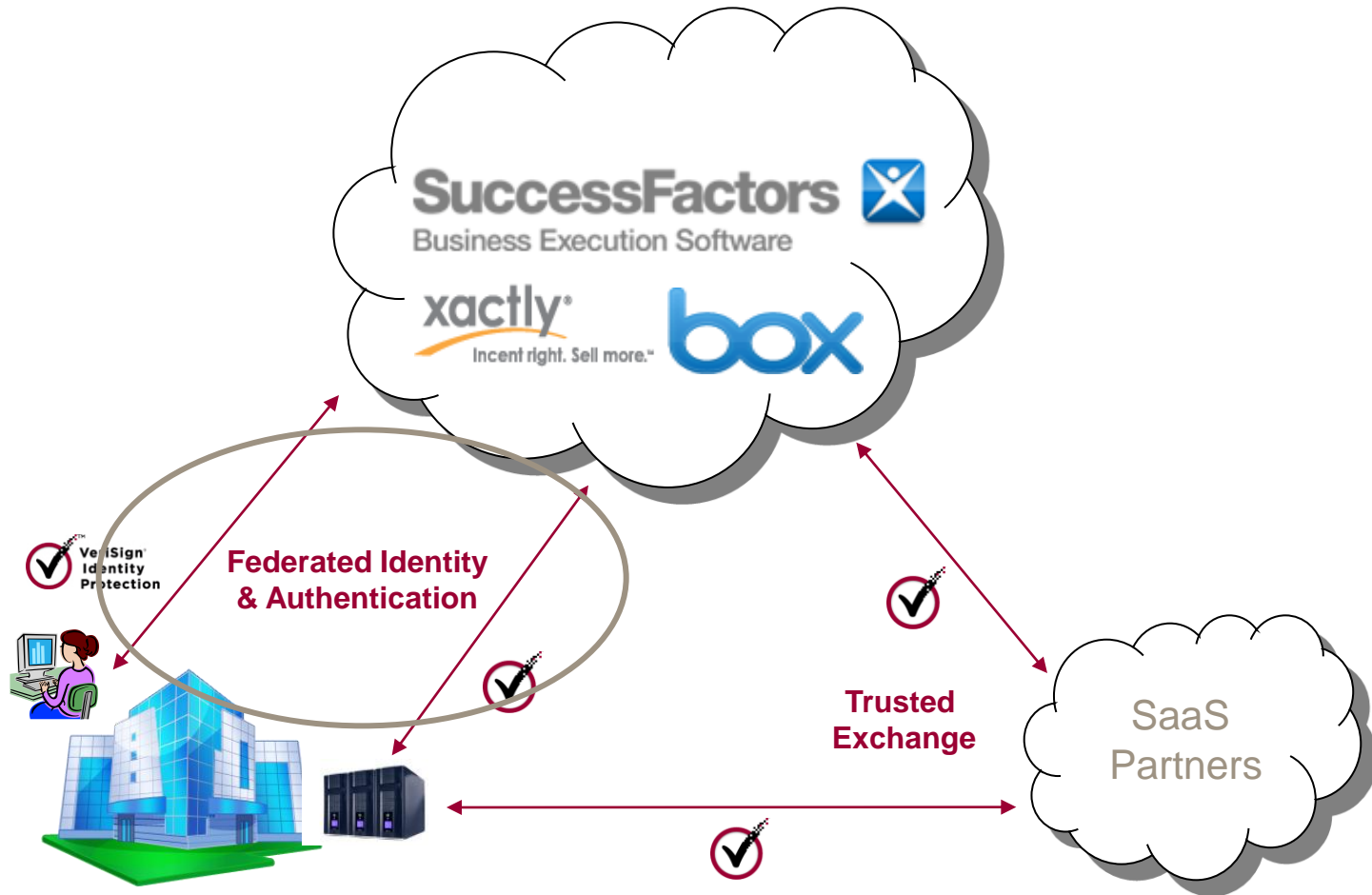
# Barriers to Cloud Adoption

Enabling businesses to securely adopt cloud-based applications by leveraging and extending identity assets to a trusted platform.

| Feature            | Details  |
|--------------------|--|
| <b>Security</b>    | <ul style="list-style-type: none"><li>▪ Identity: Strong two-factor authentication for pre-defined users and applications</li><li>▪ Data protection: Encrypted transmission and exchange between the enterprise and FIAP via PKI and SSL certificates</li></ul>  |
| <b>Integration</b> | <ul style="list-style-type: none"><li>▪ Synchronization with enterprise directory services including Active Directory, LDAP, and HRIS systems</li><li>▪ Single interface to manage user accounts across multiple SaaS applications with support for SAML 1.1, SAML 2.0, SPML, and other proprietary interfaces</li><li>▪ Single login to over 2,000 applications</li></ul> |
| <b>Compliance</b>  | <ul style="list-style-type: none"><li>▪ Compliance reporting for access for SOX, HIPAA, PCI, etc.</li><li>▪ Robust, auditable event logging for all user events</li><li>▪ Step up authentication functionality across multiple cloud-based services</li><li>▪ Enterprise-class policy and workflow management</li></ul>  |

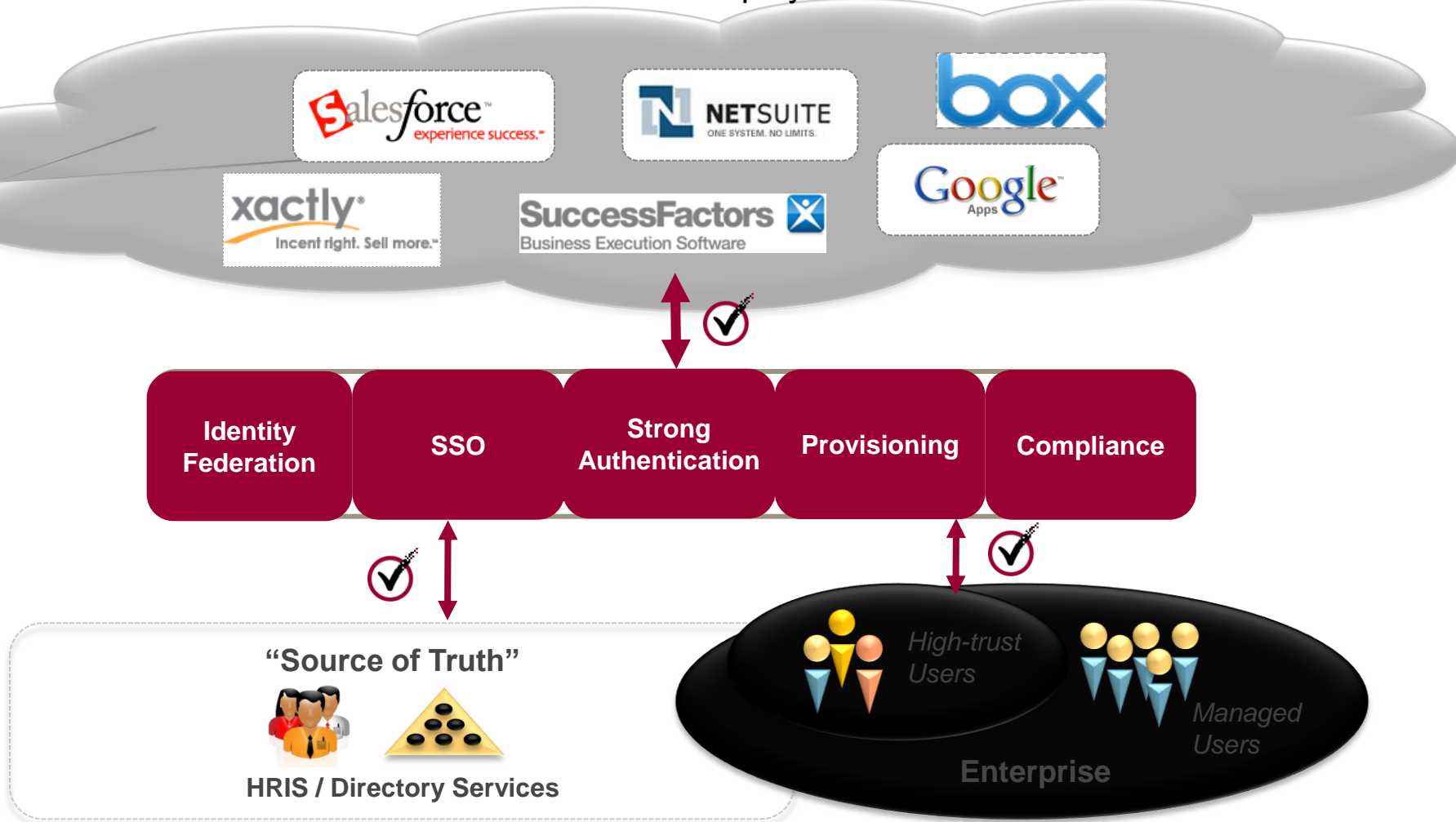


# The "Trusted Front Door" for SaaS Providers

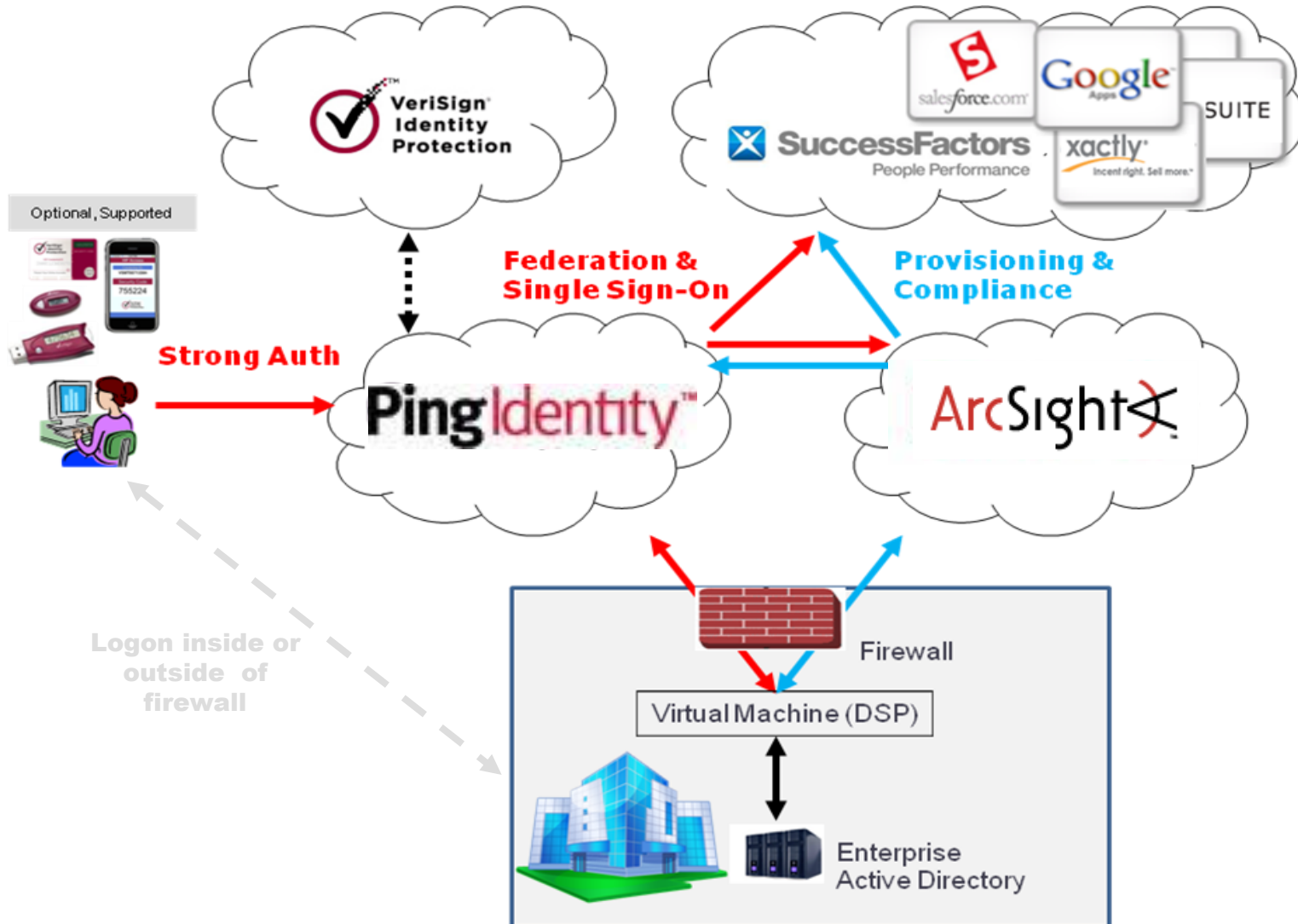


# SuccessFactors & VeriSign Framework

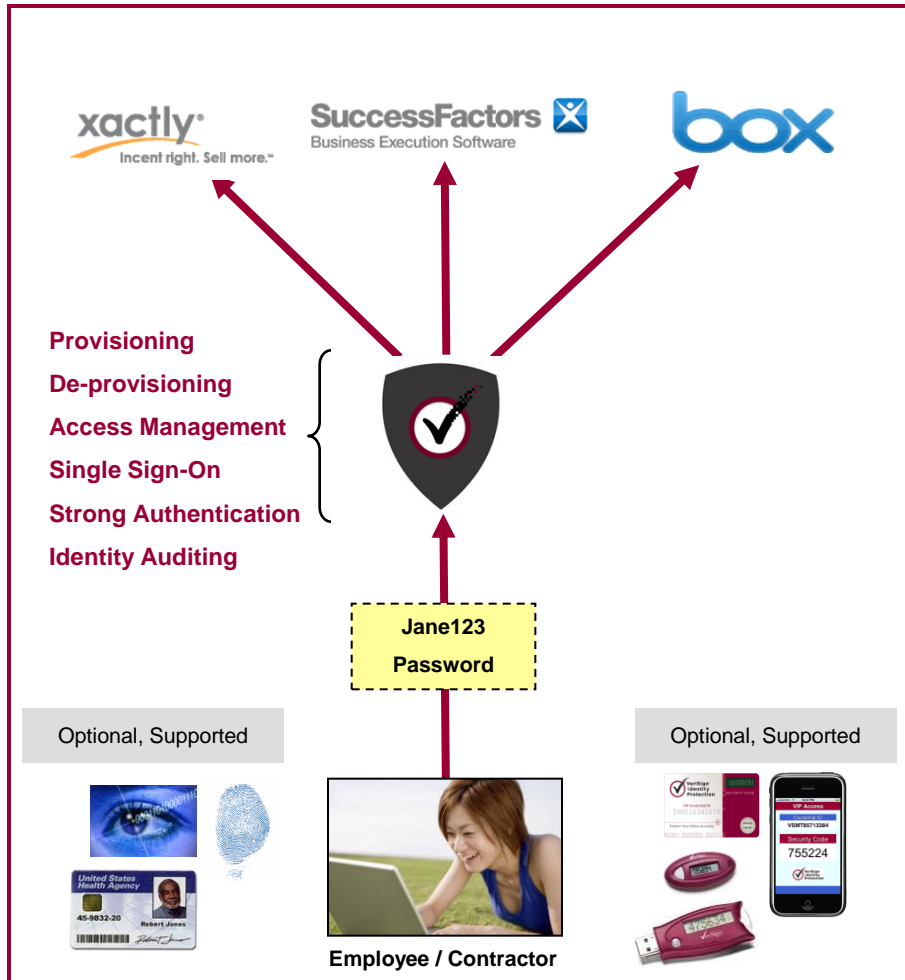
“Together, we help businesses protect and manage the most valuable assets – their employees and their identities.”



# VeriSign Trusted Identity Framework



# Benefits to SaaS Providers



## Value Proposition for SaaS Customers

- Drive adoption with Trusted VeriSign brand
- Convenience of single sign-on for access to all SaaS applications
- Single site for user provisioning / de-provisioning and account management
- Cloud-based Authentication
- Improved protection of sensitive data, which can help meet compliance





# Q&A





**Thank You**