# Evolving business models Hybrid delivery mix and cloud



#### TRADITIONAL IT

- Minimal automation
- Traditional methods of service delivery – internal, outsourcing, hosting

### **PRIVATE AND** PUBLIC CLOUD

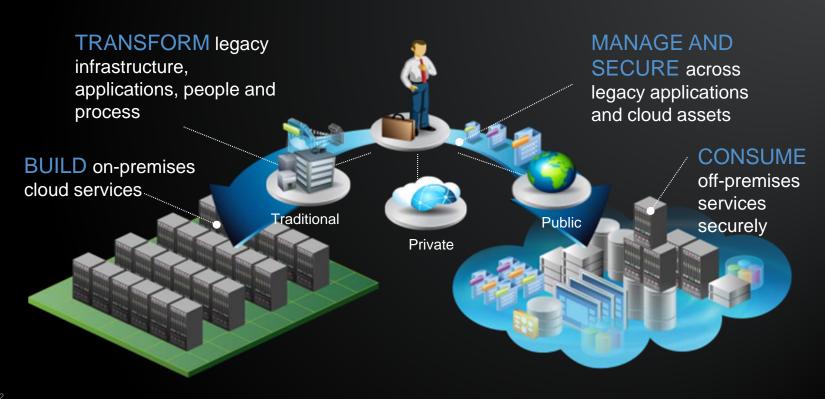
- Partial automation
- New disparate public and private cloud services

- Fully automated selfservice delivery
- Orchestrated, managed & secured hybrid service delivery
- Brokered services based on business requirements



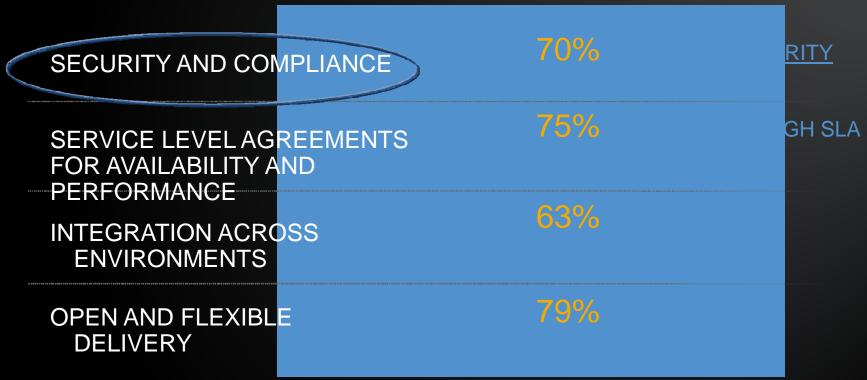
# Strategic Role of CIO Changing

CIO becomes the builder and broker of services in Hybrid Delivery





# CIO barriers to cloud adaption





Security and Risk are becoming more challenging/complex m CONSUMERISATION **CYBER** THREAT CIO CISO 130 m **CLOUD** SOCIAL \$323

**MOBILE** 



# Security in Hybrid Cloud Era

- IT and formuct focused
- Defensive and reactive
- Fragmented
- Internal data governance



- ToBusiness risk focused
- Built-in and proactive
- Centralized
- Hybrid data governance



## HP/CSA RESEARCH

### THE 7 DEADLY CLOUD SECURITY RISKS

- Abuse and Nefarious Use of Cloud Computing
- Insecure Application Programming Interfaces
- 3. Malicious Insiders
- 4. Shared Technology Vulnerabilities
- 5. Data Loss/Leakage
- 6. Account, Service & Traffic Hijacking
- 7. Unknown Risk Profile



Top Threats

to

Cloud Computing V1.0

Prepared by the

Cloud Security Alliance

March 2010

HP is a member

March 2010

Cloud Security Alliance

Prepared by th



http://www.cloudsecurityalliance.org/topthreats

# Cloud security business needs beyond just threats

# "Cloud Security Alliance" Threat mitigation

- Abuse and Nefarious Use of Cloud Computing
- Insecure Application Programming Interfaces
- Malicious Insiders
- Shared Technology Vulnerabilities
- Data Loss/Leakage
- Account, Service & Traffic Hijacking
- Unknown Risk Profile

# Process related Threat mitigation

- Virtual machine lifecycle threats
- Remote access threats
- Data lifecycle threats
- Identity and access management threats
- Cloud-bursting threats

#### Regulatory Compliance

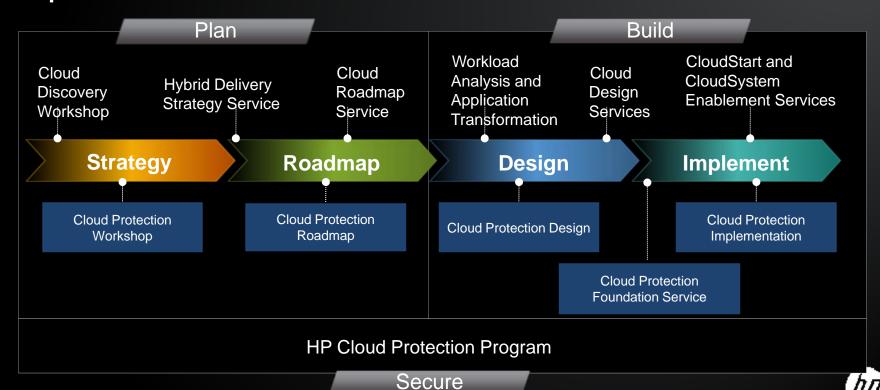
- PCI DSS
- HIPAA
- FISMA
- ISO 27001

#### Secure Business Operations

- Availability
- Accuracy
- Access
- Agility



# Building security into cloud strategy, design and implementation



## HP Cloud Protection Value Framework

**Sustomers Requirements** 

#### Security Business Needs

- Cloud Threats Mitigation
- Regulatory Compliance
- Secure Business Operations

HP's answers

### Cloud Protection Solutions

- Foundation Service
- Workshop and Roadmap Services
- Protection Design and Implementation

**Sustomers Benefi** 

### Business Results

- Cloud Security Enablement
- End-2-End Assurance
- Unified Control
- Resiliency

Why HP?

#### Differentiation

- Trusted Virtualization
- Malware Protection
- Federation & SSO
- Unified Auditing
- End-2-End Application Security
- Cloud Protection CoE



### Cloud Protection - Technical Innovations

Trusted Virtualization

Detect and Block infected VMM Location-based VM Migration Malware Protection

Protect VMM, VM OS, host OS and communications Federation & SSO

Simple federation and SSO between hybrid clouds and public CSPs Unified Auditing

SIEM and Audit for the entire cloud and legacy infrastructure End2End App Security

> End2End software assurance for the cloud (PaaS – SaaS)

HP Labs & broad integration expertise

HP and partners technology

HP Cloud Protection Center of Excellence



### HP Cloud Protection Reference Architecture (Functional View)

