What Could New-Era Corporate Systems Management Mean For The Home? And Vice Versa?

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New Life/Work Styles

Access from anywhere, at any time

Mobility

New Life/Work Styles

Access from anywhere,
at any time,
on any device

Mobility
Proliferation of devices (both count and types)

New Life/Work Styles

Authentication
Anonymity
Multi-tenancy
Overlapping authorities

Mobility
Proliferation of devices
Personal devices, work from home

New Life/Work Styles

Mobility
Proliferation of devices
Personal devices, work from home
Partnering, free-lance

Identity federation
Provisioning
Multi-tenancy

New Life/Work Styles

Mobility
Proliferation of devices
Personal devices, work from home
Partnering, free-lance
Social networks

Personal

New Life/Work Styles

Mobility

home

Manage the user's work context:
- Applications
- Data
- Preferences
- Identities, trust relationships

Application delivery modes:
- Local install
- App virtualization (streaming)
- Presentation virtualization (TS)
- HTML/AJAX

Conditional Delivery Rules
- Computer capability
- Bandwidth
- Cache status
  (incl. distributed branch cache)

New Life/Work Styles

Mobility
Proliferation of devices
Personal devices, work from home
Partnering, free-lance
Social networks
User-centric
Empowerment

Give the users the work experience they expect

New Life/Work Styles

New form factors

Generation shift

War for talent

Consumer-ization
Mobility
Proliferation of devices
Personal devices, work from home
Partnering, free-lance
Social networks
User-centric
Empowerment

New Life/Work Styles vs. IT Charter

| Government involvement | Litigation | Criminalization |

Consumer-ization	**"High Priests of IT"**
Mobility	Cost
Proliferation	Reliability
Personal devices	Security
Partnering	Governance
Social networks	Risk
User-centric	Compliance
Empowerment	Control

Management →
Security →
Compliance →

New work styles

New Life/Work Styles vs. IT Charter

Application delivery modes:
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Conditional Delivery Rules
- Computer capability
- Bandwidth
- Cache status
  (incl. distributed branch cache)
- **Security, contractual status**

...s are gallivanting around
...using personal devices,
...u protect confidential data?
...u prove compliance?
...u control cost?
...u provide support?
...u keep track of licenses?

Empowerment ←————————————→ Control

Management →
Security →
Compliance →

New work styles

New Life/Work Styles vs. IT Charter

Locationless data
Containerless security
De-perimeterization
Locationless identity
Locationless applications
Disaggregation of the PC
Disaggregation of the corp

Empowerment   Co

Network Access Protection: quarantine based on self-testimony of health

Storage Access Protection?
• Quarantine the USB stick
• Quarantine the network
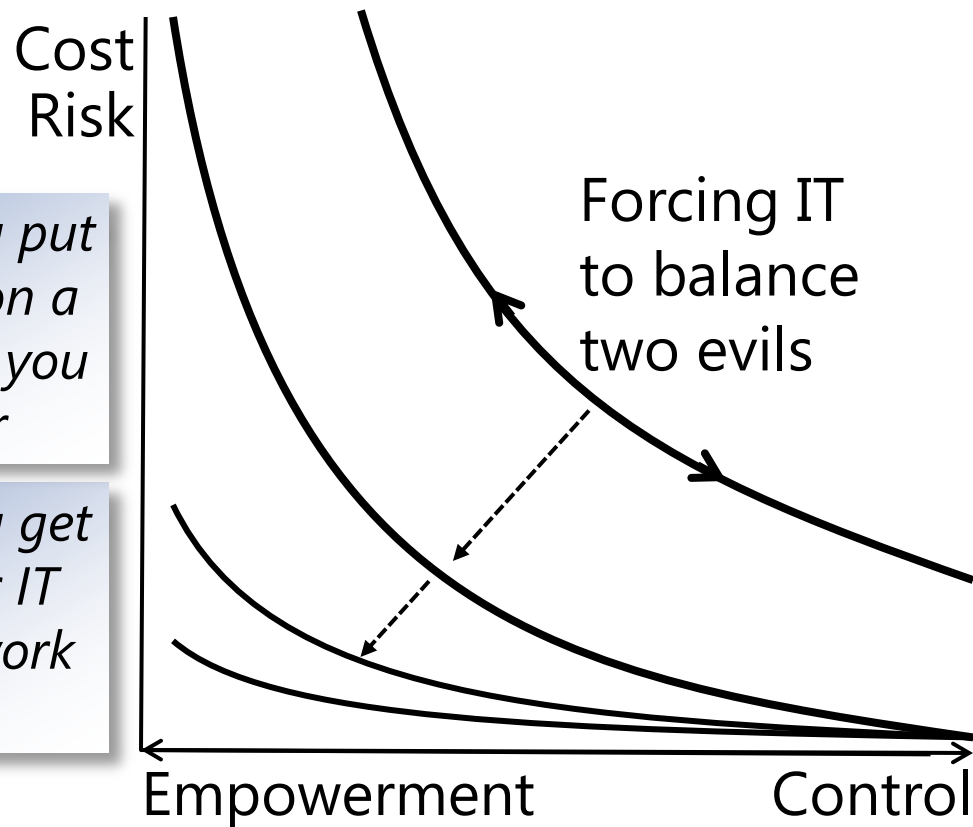
Smart devices – who is quarantining whom?

Management →
Security →
Compliance →

New work styles

New Life/Work Styles vs. IT Charter

The reason you put strong brakes on a sports car is so you can drive faster

The reason you get strong tools for IT is so you can work more flexibly

Cost
Risk

Forcing IT to balance two evils

Our opportunity: eliminate the false dichotomy, help IT enable the new work styles

Empowerment   Control

Management →
Security →
Compliance →

New work styles

The Modern Datacenter

Scale changes everything
- Complexity
- Reliability vs. resilience

Manage services, not servers

Services move with low friction over the fabric
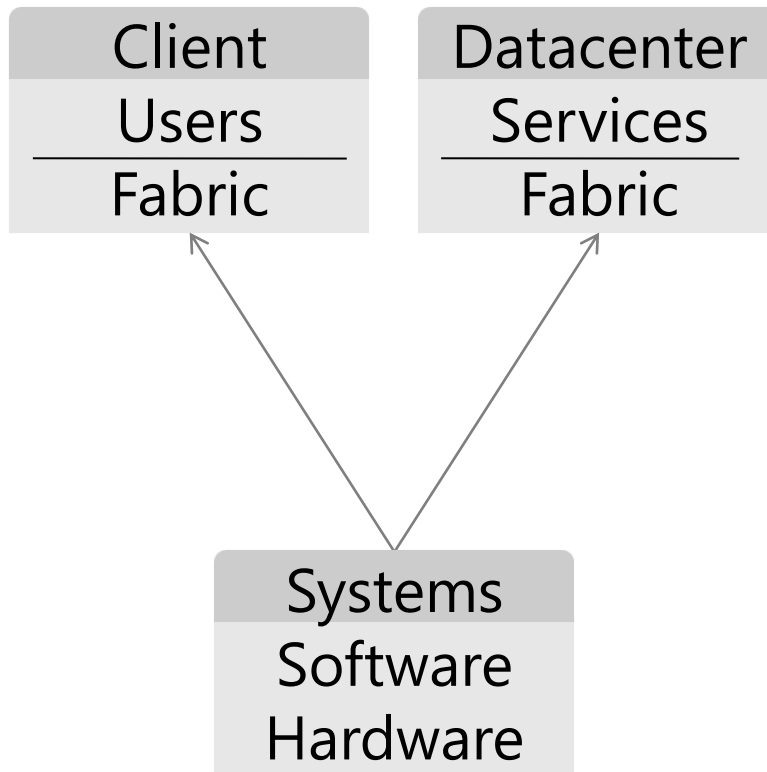
Fabric is homogeneous and interchangeable

Virtualization: low friction, elastic resource management

Each machine is a cache

Paradigm Shifts in Corporate Systems Management

Huge culture shift

Client
Users
Fabric

Datacenter
Services
Fabric

Systems
Software
Hardware

Data Leakage and Loss

A memory stick found in a public car park containing **12,000,000 confidential passcodes** to the online UK Government Gateway system, which covers everything from tax returns to parking tickets

"10% of all laptops, and 70% of all USB sticks, are lost every year"

"600,000 laptops are lost at U.S. airports every year"

© newsteam

Data Leakage and Loss

Security

Windows has Bitlocker + Folder Redirection + Client-Side Caching

+ Distributed File Server...

What does IT department have to do?

1. Acquire suitable hardware with TPM

2. Provision OS with Bitlocker

Management

3. Set up Bitlocker policy

4. Set up folder redirection/client-side caching policy

5. Set up Direct Access to enable roaming CSC

6. Allocate and manage file server storage quotas

7. Set up file server replication

8. Set up server retention, shredding, backup policies

9. Report on end-to-end compliance (priceless)

Compliance

Governance, Risk and Compliance

It is not enough to show you have lost no confidential data.

You have to show that you have policies and processes that prevent *future* losses of confidential data.

Geo-regulation...?

What is the Consumer Equivalent?

Information privacy – certainly

De-perimeterization – certainly

Untrusted service providers – maybe

Compliance – probably not?

Home as an extension of work, politics, activism...

Interesting Problems

Virtualization
- Bring Your Own VM
- Managed VM in the cloud
- Check out VM from the cloud

De-perimeterization
- Protect data in motion
- ...without blocking normal life

Protect locationless data
- Selectively share protected data
- Check that encrypted backup data is still there, and valid

Equivalents For The Consumer?

User-centric – my stuff wherever I am

Virtualization – bring my stuff when I visit Mom

Fabric – all my devices should self-manage, individually and as a unified fabric

Agility – add more resources, replace some stuff

Resilience – survive failures, including misconfiguration

Multiple identities, anonymous claims, multi-tenancy

Privacy

The Social Effects of Technology

New technology

↓

New capabilities

↓

New behavior

↓

New expectations

↓

New SLAs

↓

New contracts

↓

New regulations

Equivalents For The Consumer?

What are the equivalents in the home
to these cultural, social, legal, practical challenges?

Which are amenable to technical solution?