

The Enterprise as the Experiential Design Platform

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Conclusion



Individuals are autonomously designing, creating, and operating their own complex, idiosyncratic information systems. These systems are designed in an experiential and emergent way. This growing technological autonomy creates dynamic bindpoints where formerly there were relatively static user endpoint interfaces across an air gap. This enables the organization to adjust the location of its enterprise system bindpoints in relation to the individual system endpoints.

Agenda

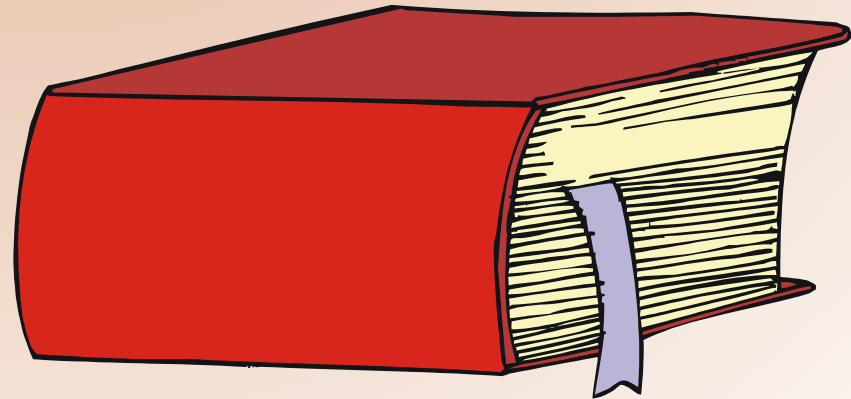
- Defining Individual Information Systems (IIS)
- Example IIS
- Individual Technological Autonomy
- Experiential Design
- Enterprise-Individual Bindpoints
- Conclusions



Defining Individual Information Systems (IIS)

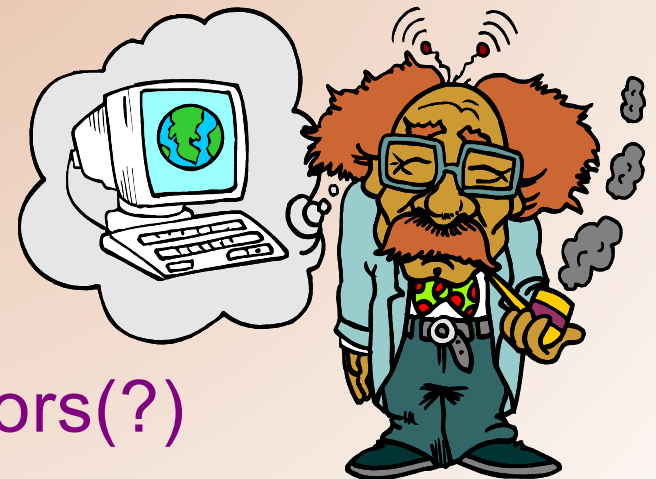
Outline

- Defining Information Systems (?)
- Defining Personal Information Systems
- An IIS Definition



An IS Assumption

- Complex social-technical phenomena
- Human-computer system, ICT in a human context.
- Not just cumulative
 - ▶ ICT (?),
 - ▶ ICT + information (?),
 - ▶ ICT + information + human factors(?)



Defining Information Systems (?)

(Alter 2008)

- More than 20 “definitive” definitions
 - ▶ Most include references to computers or technology
 - ▶ Most refer to organizations in some way
 - ▶ Some mention society or social aspects.
 - ▶ Most would exclude an individually owned IS
- A type of system, "in which human participants and/or machines perform work (processes and activities) using information, technology, and other resources to produce informational products and/or services for internal or external customers"



Defining Personal Information Systems



- Information science "personal" information systems
 - ▶ A database or bibliographic perspective
 - ▶ Important: the idiosyncratic nature
 - ▶ Corresponded to unique individuals
- A "personal information system [is one that] provides information tailored to an individual and delivered directly to that individual via a portable, personal information device (PID) such as a personal digital assistant, handheld PC, or a laptop."
(Silberschatz & Zdonik, 1996, p. 770)

An IIS Definition

Integrating two somewhat contradictory streams

An individual information system is a system in which individual persons, according to idiosyncratic needs and preferences, perform processes and activities using information, technology, and other resources to produce informational products and/or services for themselves or others.



Example: “Sam Spade”

Pseudonym

A professional employee in a large government division



Sam Spade IIS Hardware

- **Dedicated hardware:**
 - ▶ Two desktop machines (home/office), one laptop, smartphone, tablet
- **Shared family hardware:**
 - ▶ Two laptops, printer/fax
 - ▶ Home network: modem, firewall, routers, wireless AP
- **Internet access: Office, home, mobile**



Sam Spade IIS Software

In Frequent Use

- Professional
 - ▶ Office productivity
 - ▶ Dictionaries, reference
 - ▶ Email & VoIP
 - ▶ Calendar & Contacts
- Personal
 - ▶ Personal finance/banking
 - ▶ Portfolio manager/brokerage
 - ▶ Tax reporting
- Overlap
 - ▶ Compensation & benefits
 - ▶ Tax reporting
 - ▶ An app constellation



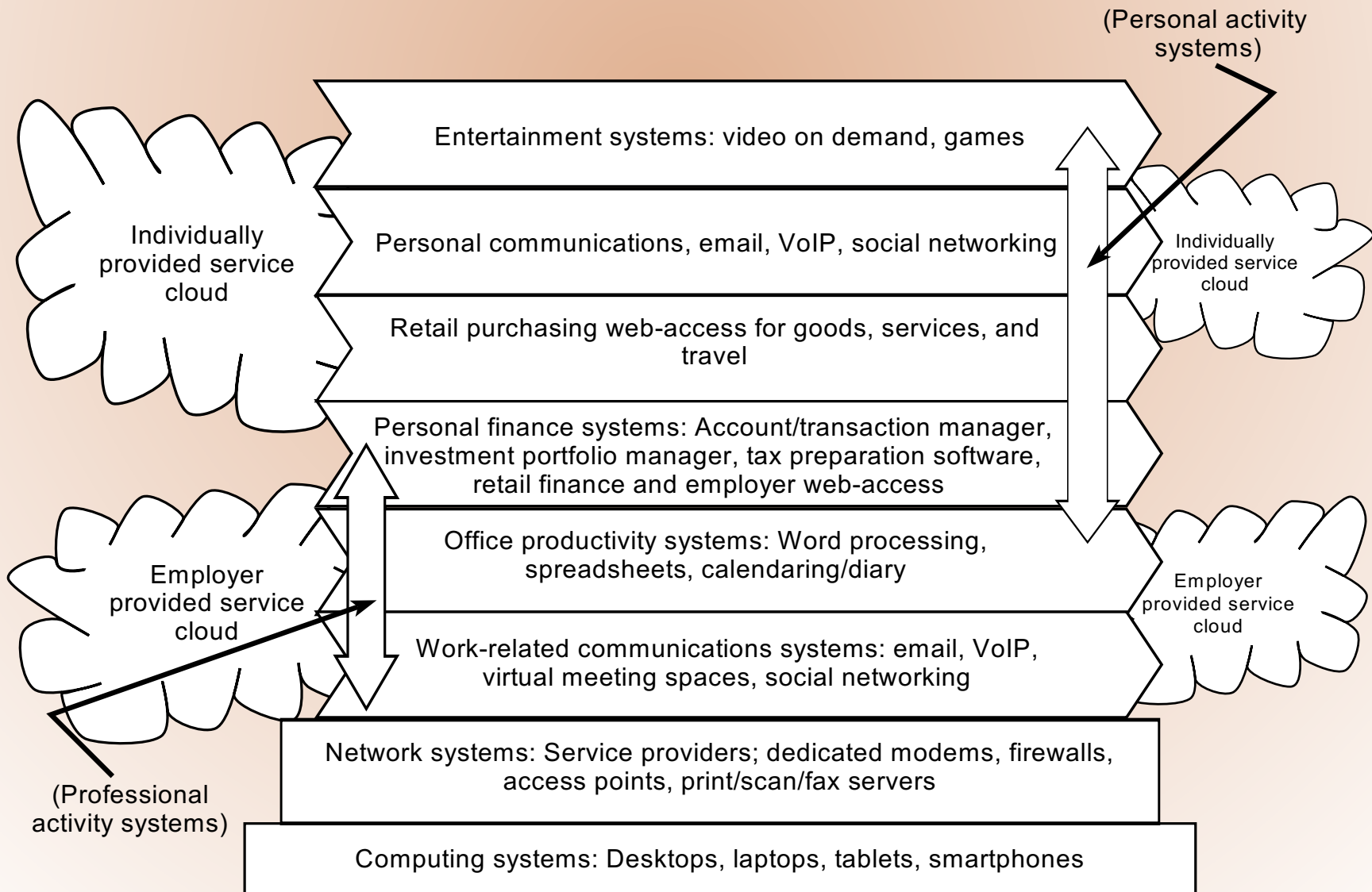
Sam Spade IIS Clouds

Business Service Clouds

- Professional
 - ▶ References (regs & pubs)
 - ▶ Customer & vendor data
 - ▶ Online professional tools
 - ▶ Virtual meeting tools
- Personal
 - ▶ Banking & finance
 - ▶ Travel
 - ▶ Shopping



Sam Spade IIS Architecture



Technological Autonomy

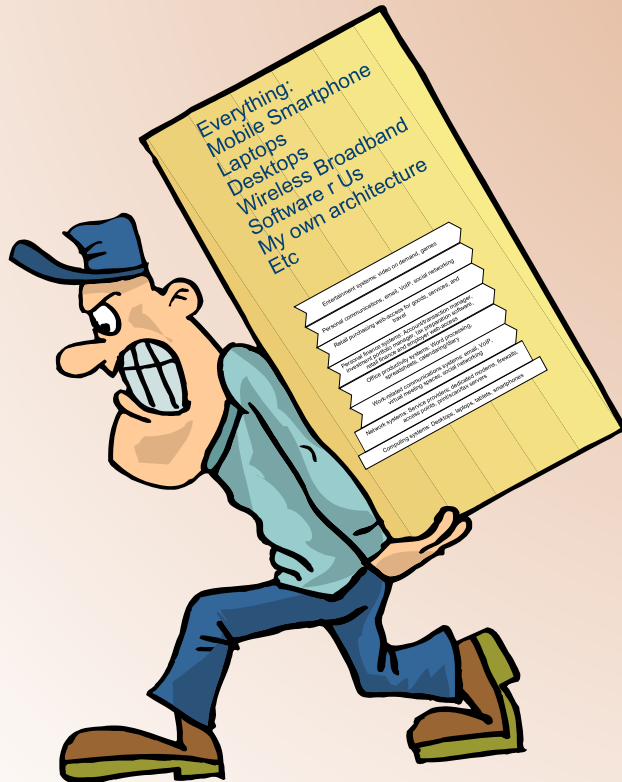
Outline

- BYOS (Bring Your Own System)
- Individuals as Users
- Personal Information Systems



Individual Technological Autonomy

BYOS (not BYOD)



Individuality

Assuming People are Organizational System Nodes

- Idiosyncratic usage reasons
- Idiosyncratic adoption patterns
 - ▶ Which feature subset?
 - ▶ Simply to study intentions
- End user development
- Task-technology fit



Personal Information Systems

Information Science

- Storing and processing library and database information in idiosyncratic ways
- Subjective scope & methods (processes)
- Idiosyncrasy creates overhead
 - ▶ Query & schema complexity
- Executive info sources for strategy setting
 - ▶ (IS Research)



Elements of Experiential Design

Outline

- Idiosyncrasy
- Socio-Geo Bounded ICT
- Experiential design



Idiosyncrasy

- Variable scope, processes, ICT configuration
- Uneducated design and use + unlimited system availability
- Richer information attributes
- Design goals
 - ▶ Utilitarian, hedonistic and social outcomes
 - ▶ (value, enjoyment, and status)
 - ▶ Internet usage patterns reflect higher social and community purposes



Bounded Socially and Geographically

The individual within a social-technical context

- Mass market, low cost
- Standardized, preconfigured
- Designing peculiar systems with standard parts
- Social/professional network influence
 - Family, neighbors and coworkers
- Tension with idiosyncrasy
- Complicated, inefficient workarounds



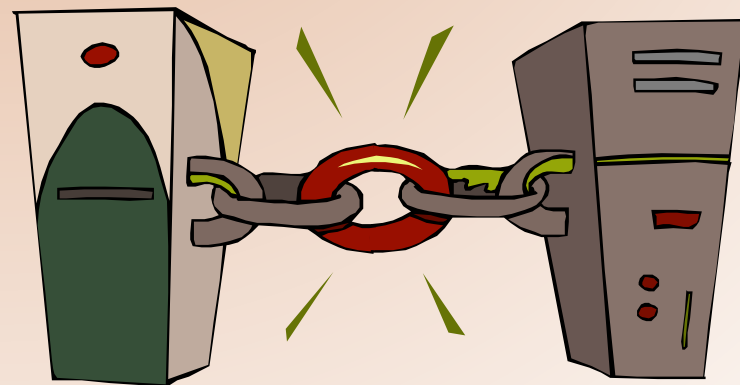
Experiential Design

- Explorable
 - ▶ Trial-and-error
 - ▶ Trial software
 - ▶ Cheap or returnable parts
- Component hodgepodge
 - ▶ Piecemeal acquisition
 - ▶ Constrains redesign
- Affordance Matching
 - ▶ Goal elaboration
 - ▶ Existing system
 - ▶ Feasible elaborative components
- Emergent systems
 - ▶ Short time planning & operating horizon



Enterprise Individual Bindpoints

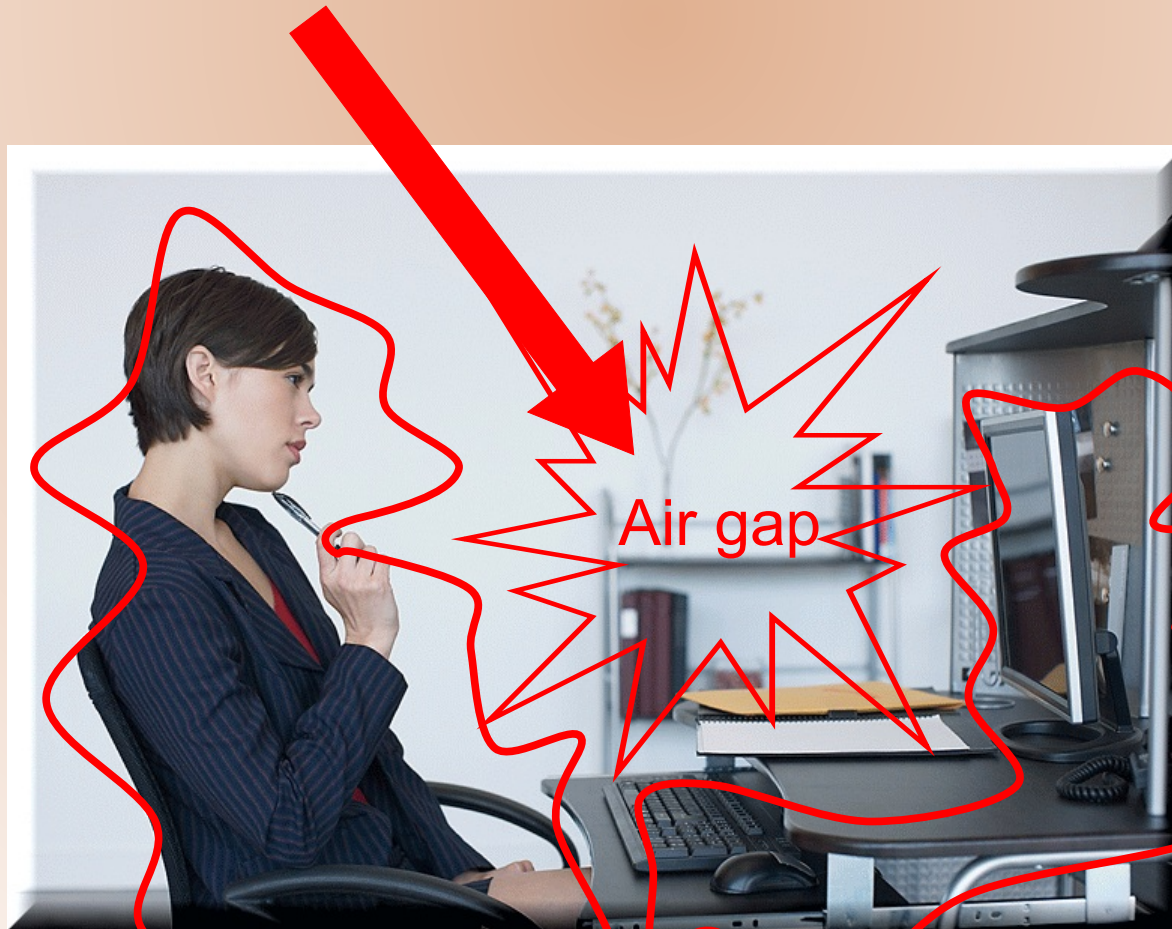
- Enterprise Information System Endpoints
- Dynamic Intersections
- System Bindpoints
- System Airgaps
- Example: Digital Forensics Class



Enterprise Information System Endpoint

Security of an Air Gap

User

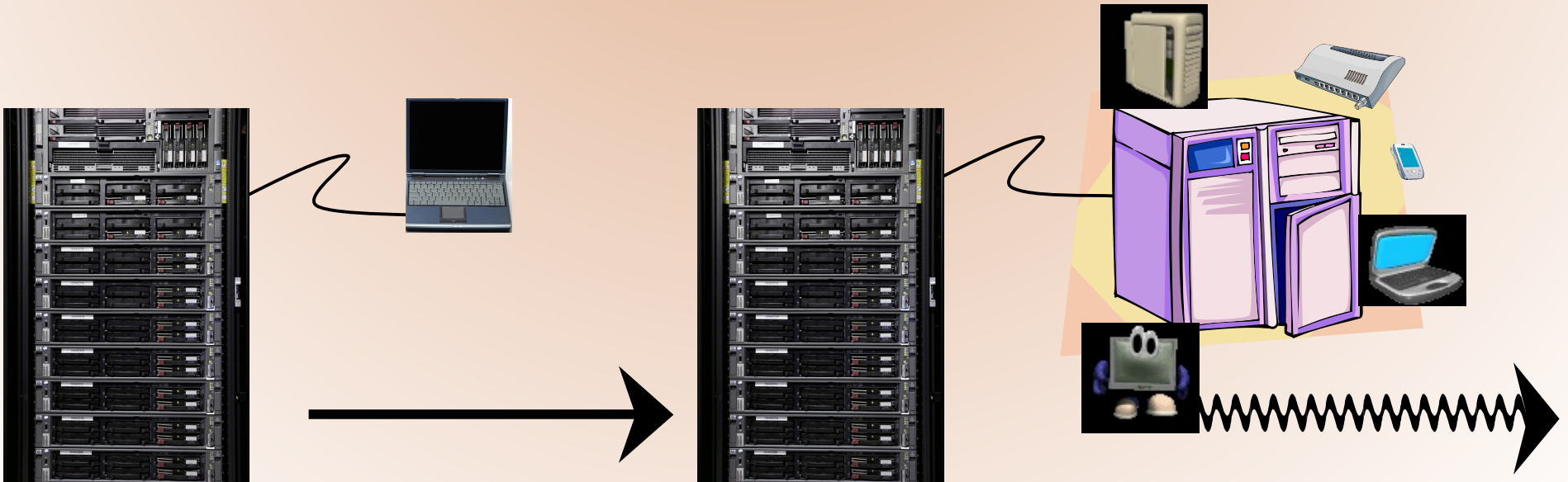


Enterprise's
system

Endpoint or Bindpoint

Endpoint: The mark of a terminus or completion that generates or terminates an information stream. Particularly the remote devices such as laptops or other wireless and mobile devices that connect to an enterprise system.

Bindpoint: The new (changed) context created when a new or altered individual information system connects with an enterprise information system.



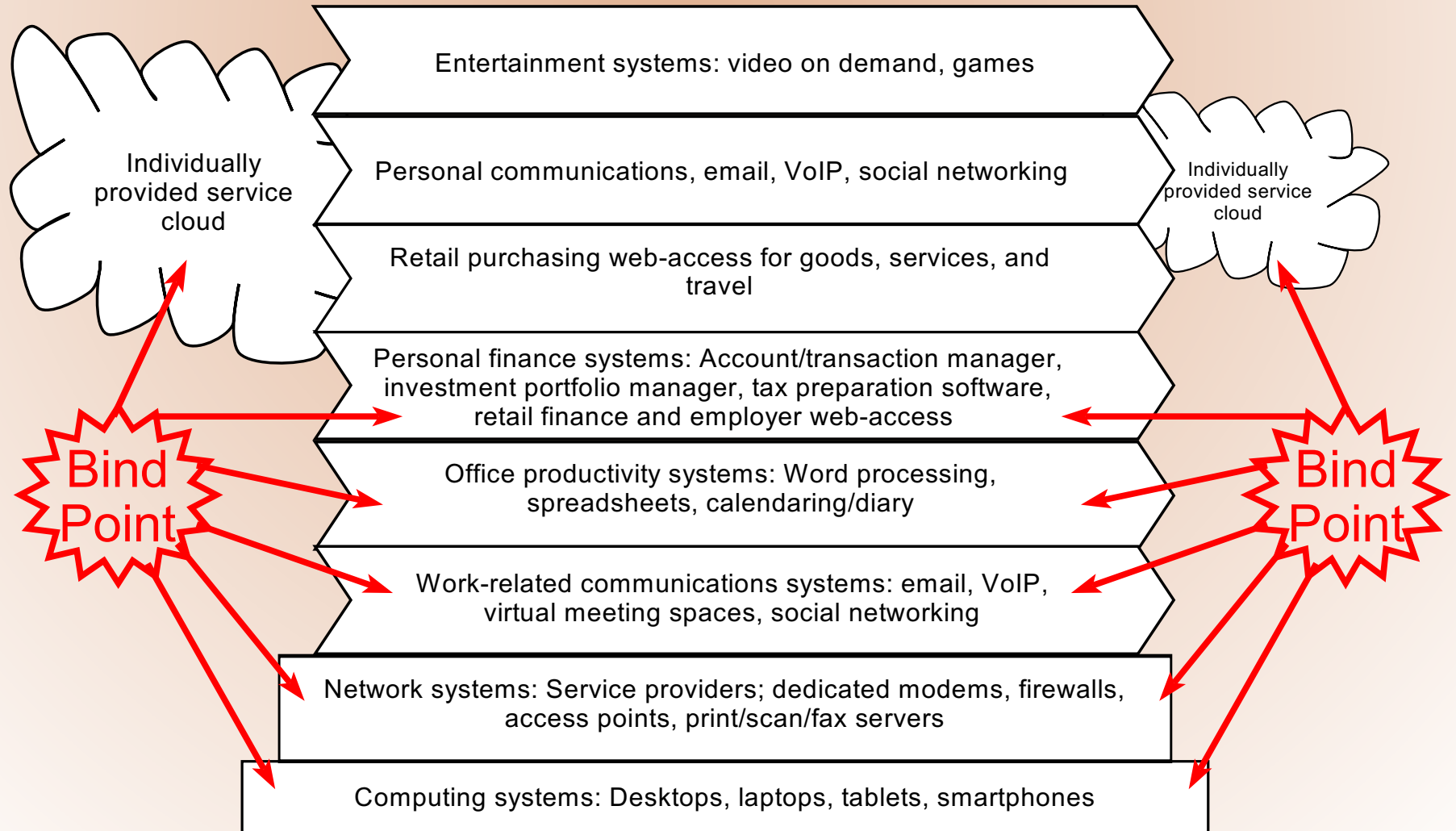
The Enterprise as a Dynamic Intersection

(Of dynamic bindpoint interfaces)

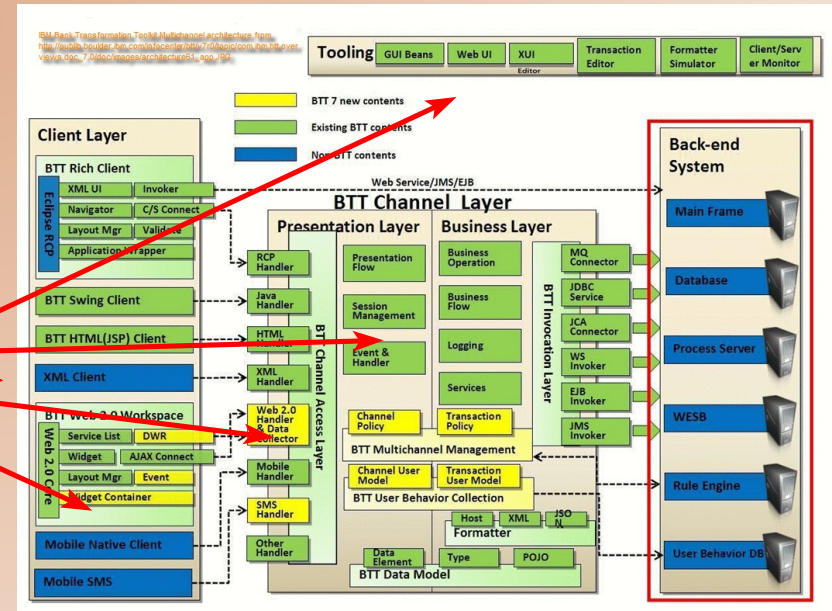
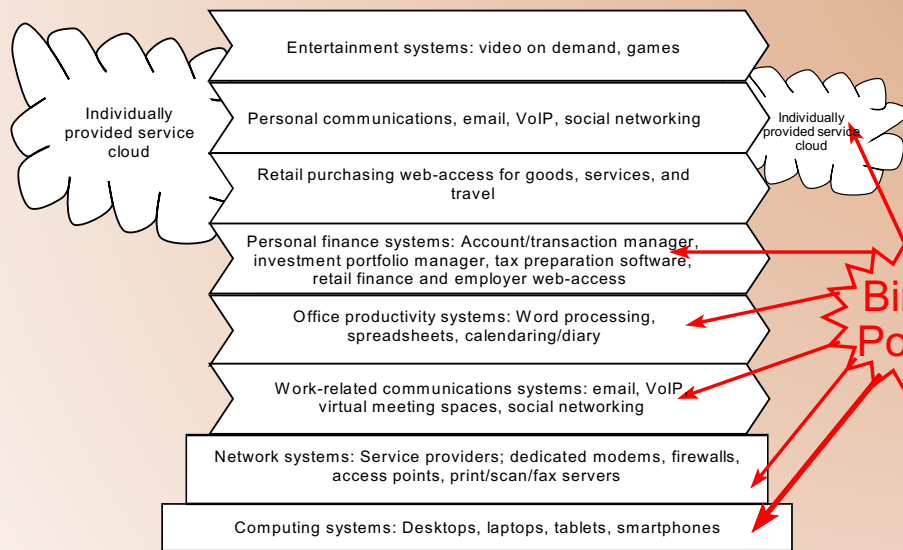
- Endpoint versus bindpoint
- Endpoint: terminus of the system. Entry or exit point for a service or process.
- Bindpoint: The condition of the individual information system after binding to the enterprise system; concomitantly the condition of the enterprise information system after binding to the individual information system.



Individual Information System Bindpoints



Individual-Enterprise IS Bindpoints



Individual
IS

Enterprise's
IS

Shifting Air Gap

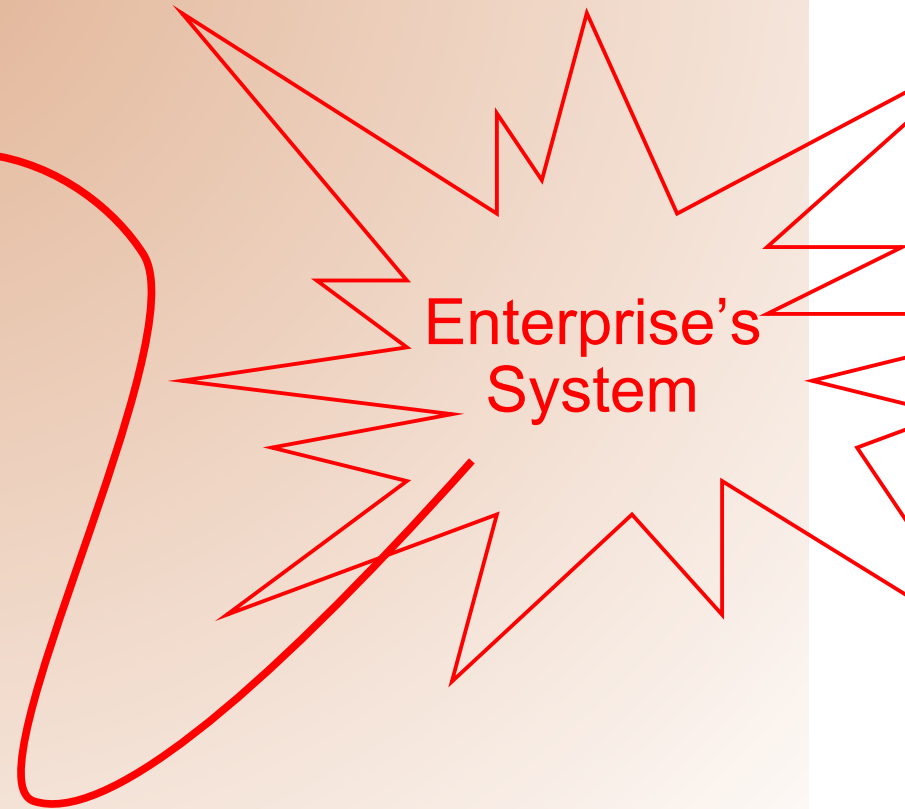
Air gap moves behind the individual information system



Individual
IS

Air gap

Enterprise's
System



Example: Digital Forensics Class

In Executive Program



Discussion

- Contingent knowledge workers
 - ▶ Increasing workforce component
 - ▶ Job security from a portfolio of employers
 - ▶ Dependent on complex individual information systems
- Insights into organizational use of experiential design
 - ▶ Present in prototyping and agile development
 - ▶ Constrained by resource management
 - Except skunkworks or hobbyshopping
 - ▶ Security event response and disaster recovery
- Managing bindpoints?
 - ▶ Experiential design of bindpoint portals in the organizational information architecture



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