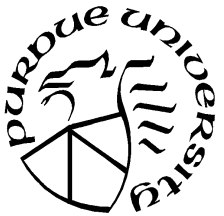
Purdue University

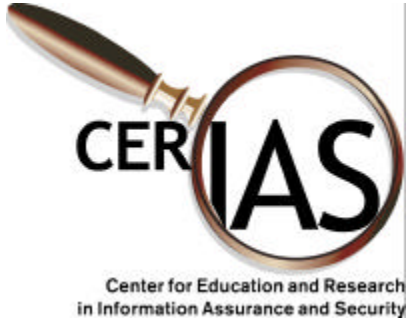
Center for Education and Research in Information Assurance and Security



Trust in a dotcom world

Martin Sadler

Hewlett-Packard Laboratories



Outline

- Context
  - how much do we understand?
- Challenges
  - what should we be addressing?

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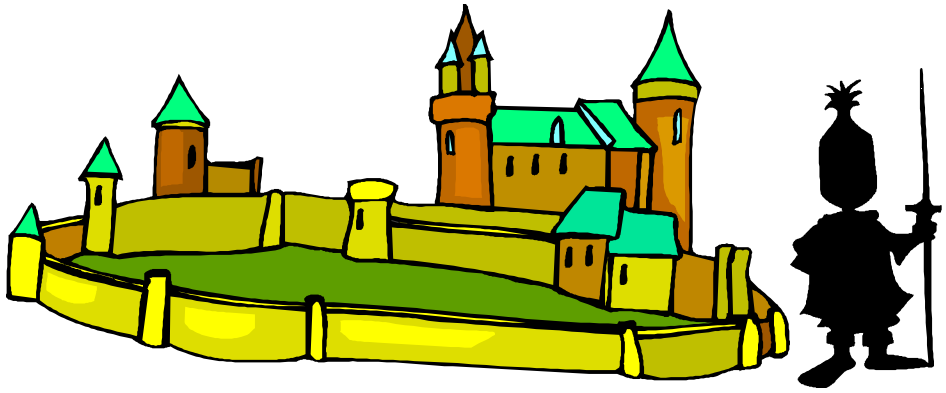
A metaphor

- **Enterprises as walled cities**



Much of our understanding is built on this metaphor

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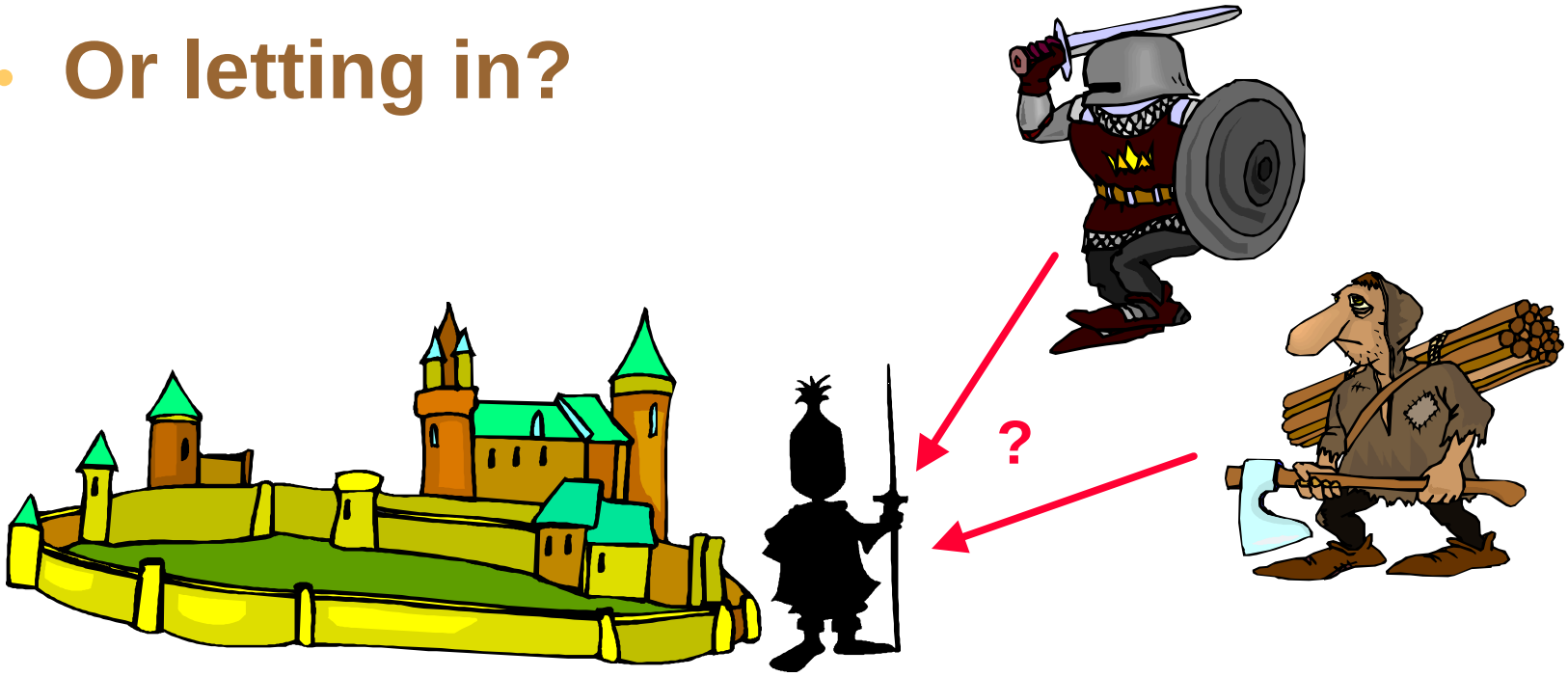
Keeping out

- Or letting in?



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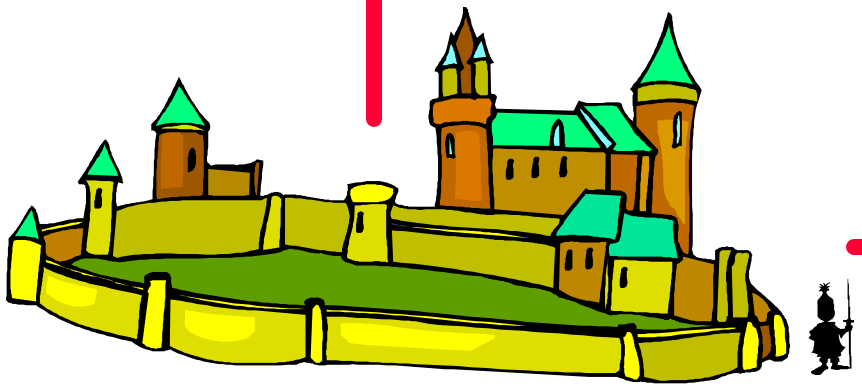
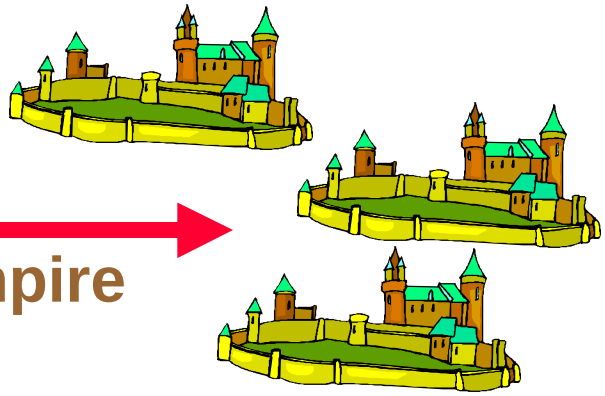
Expansion

Intranets begin to strain, so does our understanding

trade



empire



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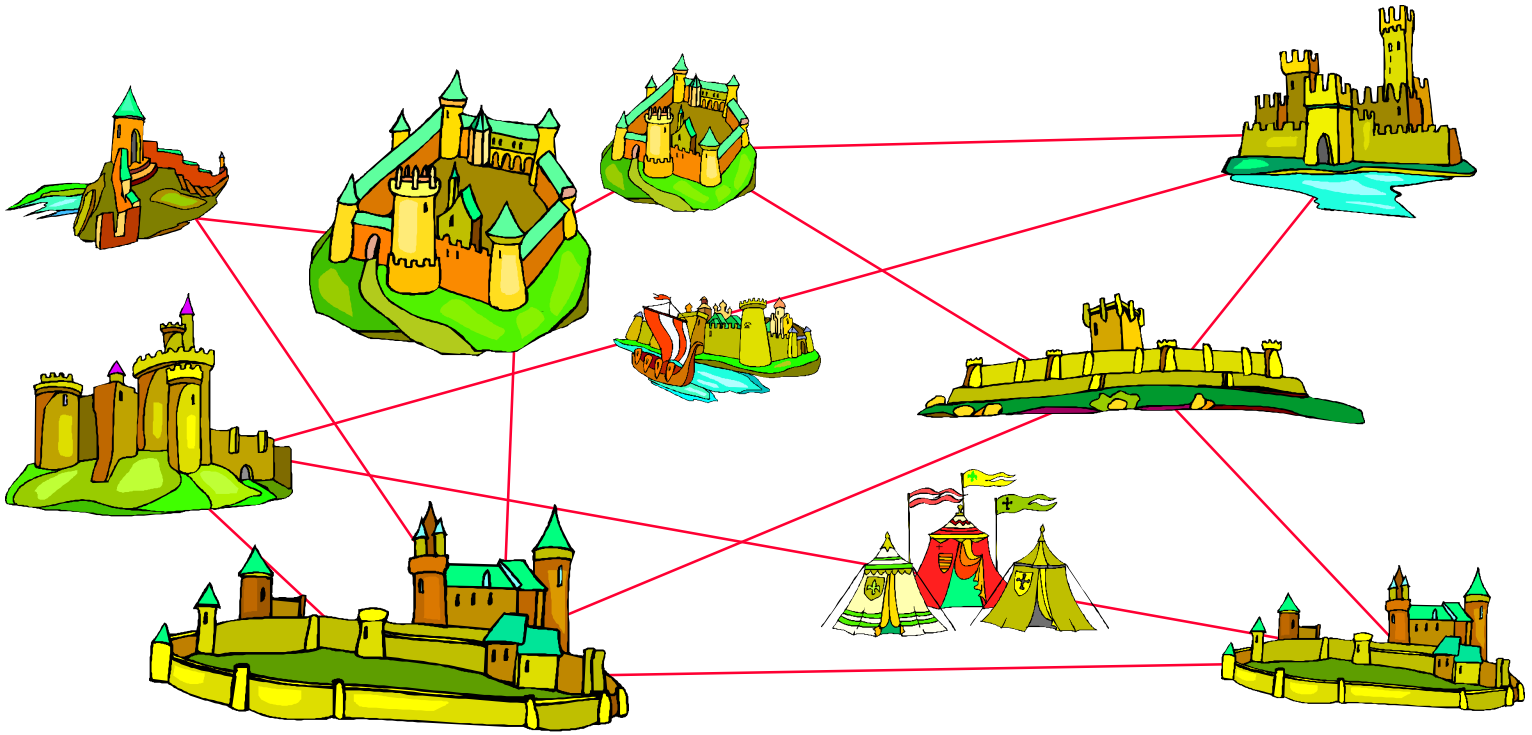
Complexity



Any-to-any

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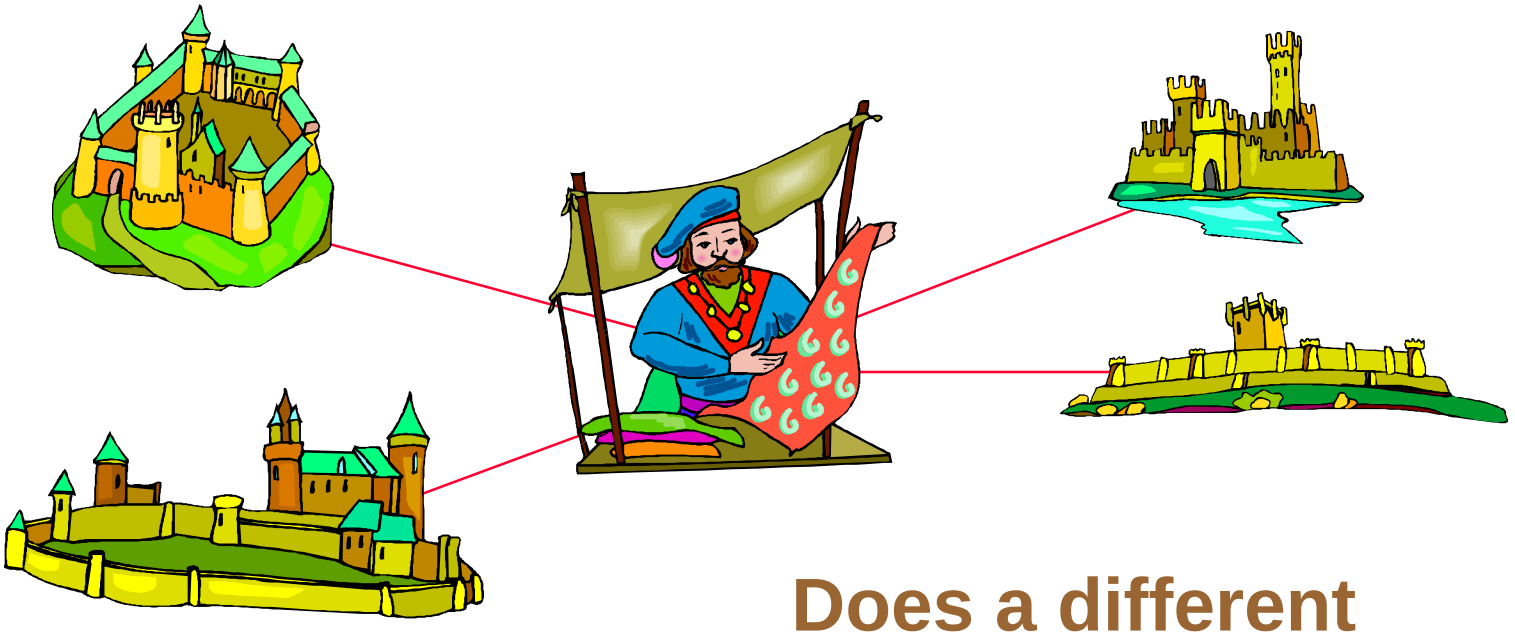
Marketplaces



Does a different topology help?

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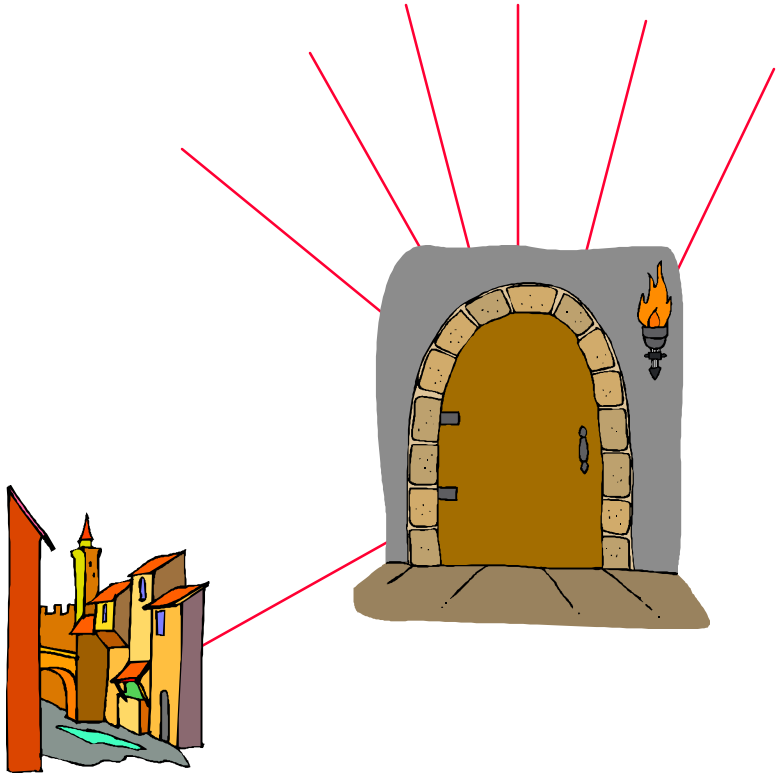
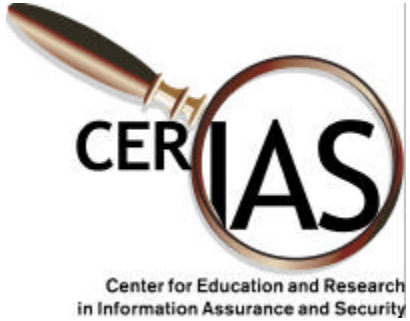
Portals



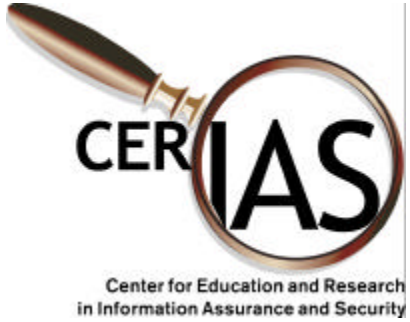
Does mediated access help?



Solutions

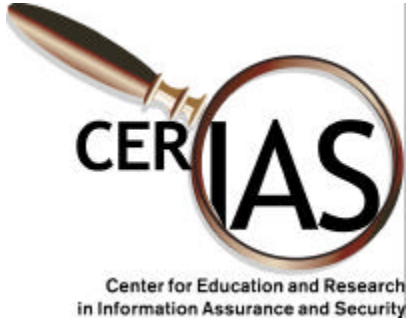
- **Empire**
  - VPN
  - firewalls
  - anti-virus
  - intrusion
  - authentication
- **Trade**
  - credentials
  - PKI
  - payment

Are we focusing in the right area?



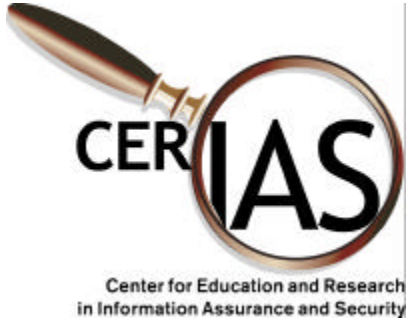
Challenges

- So what issues should we be addressing?
- Claims (a view from HP labs)
  - focus on trade (rather than just empire)
    - key role of marketplaces and portals
  - integrate: end-to-end, top-to-bottom
  - package our understanding



Challenge - platforms

- Improve our foundations
  - trusted platforms
    - www.trustedpc.org
  - trusted OS
    - better separation of concerns



Challenge - passports

- How do we make certificates/credentials
  - pervasive?
  - inter-operable?
  - light-weight?
- Is this just about identity?

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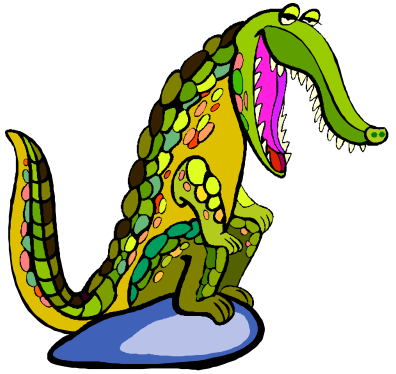
Challenge - P and P

Policing, protection



Privacy

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Challenge - contracts

bid and offers → service negotiation → contract → contract enforcement

How do we integrate with business processes?

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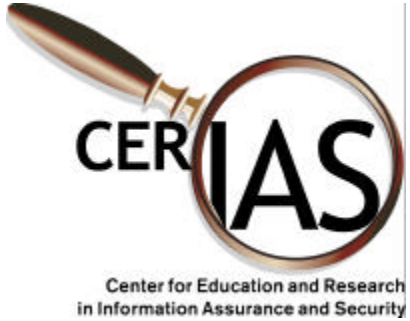
Challenge - global

Global interaction
yet
different social norms
different laws

A cross-discipline, cross-border approach essential



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- **CERIAS provides a forum in which such challenges can be shared, worked on collaboratively, insights gained and new paradigms established**

- ***So what are your challenges?***