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Customer Success Is Our Mission

Security-enabling Technologies

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May 9, 2008

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Security-enabling Technologies

- Situation Assessment – The Threat of Terrorism
- Mitigating the Threat
- Necessary Evolution of Technology
- An idea for the petrochemical industry

Threat Vector: Convergence, Migration, Escalation

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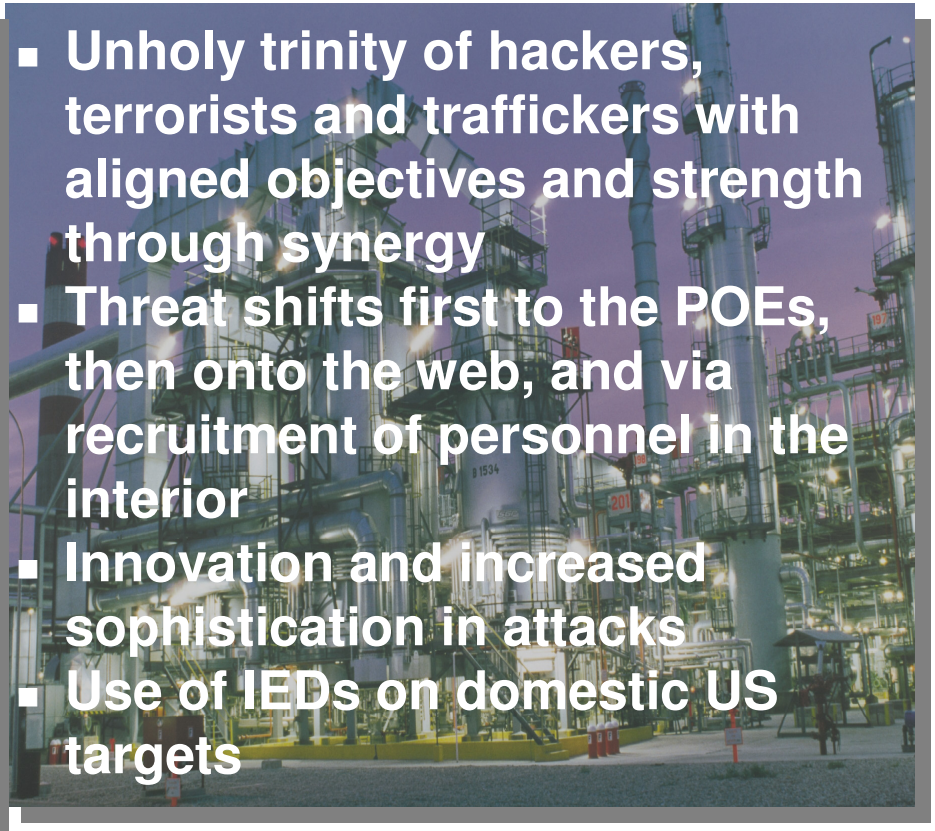
Here Today:

- Increasing certainty of detection and apprehension at POEs and on the border
- $64 billion annual illegal drug trade (US only)
- Known links between terrorist and drug trafficking organizations
- High profile, coordinated cyber attack on Estonia
- Hackers demanding cash kill power to several African cities … with inside help
- Proliferation of anti-forensic hacker tools
- Counterfeit routers, switches, and interface cards
- Escalating violence on law enforcement and border security officers
- 70 new smuggling tunnels found in 2008 as of May 4

Tomorrow?



- Unholy trinity of hackers, terrorists and traffickers with aligned objectives and strength through synergy
- Threat shifts first to the POEs, then onto the web, and via recruitment of personnel in the interior
- Innovation and increased sophistication in attacks
- Use of IEDs on domestic US targets

Keep in mind: they are already inside

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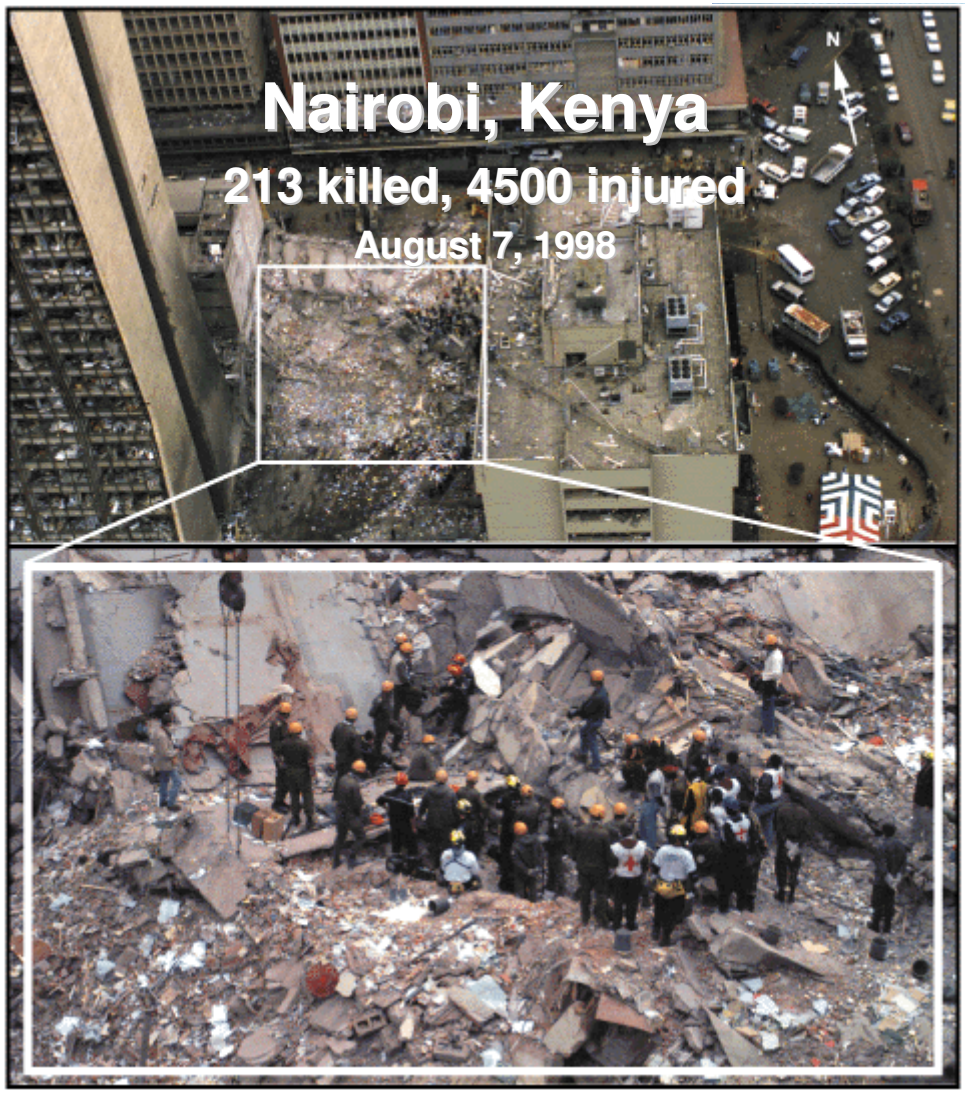
Planning an Attack Takes Time & Effort



As early as December 1993, a team of al Qaeda operatives had begun casing targets in Kenya, Senegal, Tanzania, and Djibouti

Hezbollah operatives were detected conducting surveillance as early as four years before the attack

Dar Es Salaam, Tanzania

11 killed, 85 injured

August 7, 1998

Q: If you are Al Qaeda or Hezbollah, How do you outshine 9/11?

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A: Recreate Bhopal, India

8,000 killed, 500,000 injured

December 3, 1984

Threat Escalation is Inevitable…Where are they Probing Now?

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5 Success Factors in a Terrorist Attack

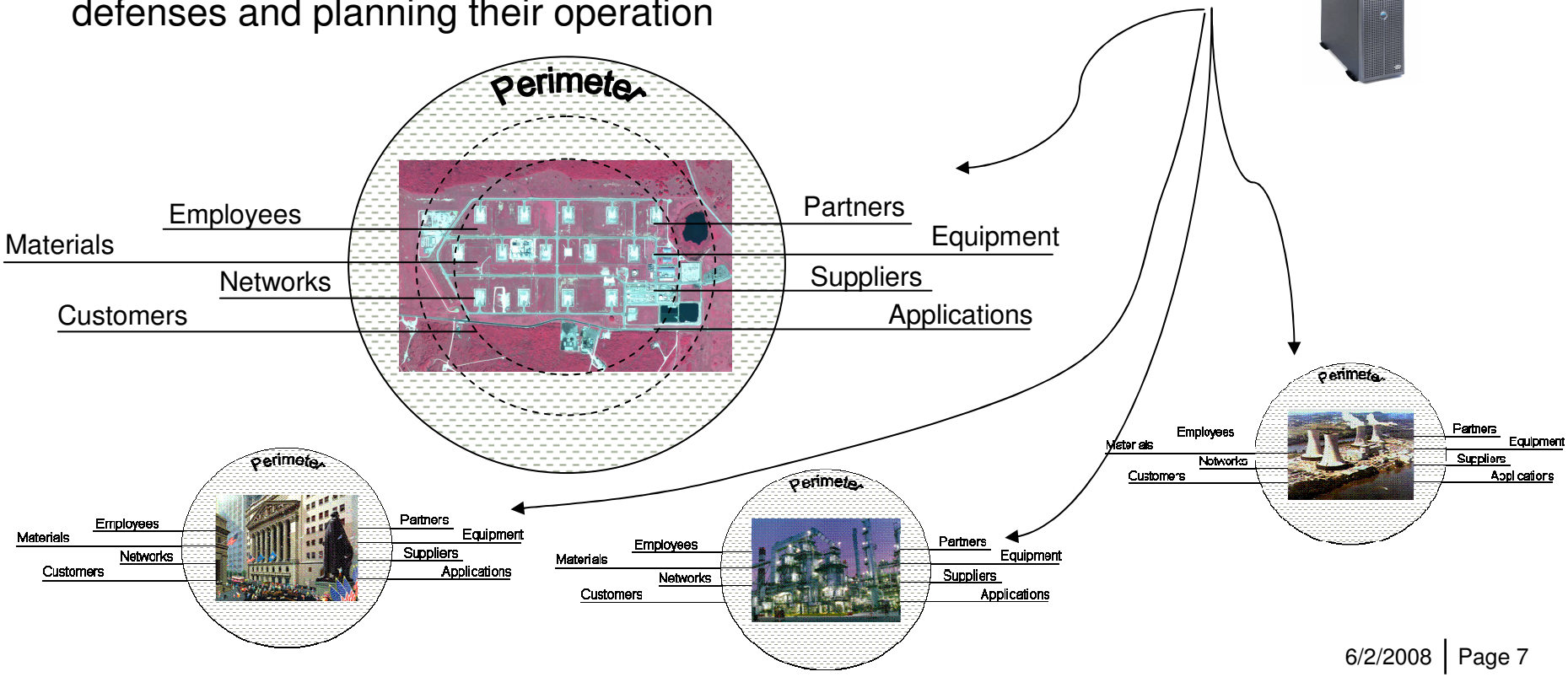
Tools: Money, People, Networks, Software, Hardware, Access, Identities, Mobility

To prevent a terrorist attack, it is critical to detect the discreet but identifiable indicators of the pre-attack preparations

Threat Vector Summary

Fanaticism, desperation, money, and evolving tools combine to enable criminal and terrorist operations as sophisticated as an espionage/special forces agency

A single integrated corps uses a variety of tools to probe for vulnerabilities in **all perimeters**, including from the inside, across multiple potential targets owned/operated by different organizations … narrowing targets, learning how to penetrate defenses and planning their operation



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Early Warning is Key

- A **Common Security Picture (CSP)** is needed across a single organization's assets, personnel, networks and information systems, facilities, and supply chain to detect and recognize all threats and suspicious links and patterns
  - Correlation of event data is key
- Must be structured for information sharing – not just technically, but in policy – between separate organizations
  - A consortium of neighboring assets messaging incident data between them
  - Using intelligent technology to detect common suspicious events and surveillance/probing
    - facial recognition, intelligent video, image analysis, license plate readers, network policy deviation, facility policy deviation, Network Operations Center, Security Operations Center … convert data to a blinded descriptive message and see who else has similar event data
  - Irrespective of ownership, liability, or security provider

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Common Security Picture Concept

Step One: Deploy an Enterprise Security Common Operating Picture (COP)

Correlation across your security domains to detect patterns and links of interest

Surveillance			
Image Mining	LPR	Facial Recognition	Digital Forensic Analysis

Facility Events	
System Failures	Facility Intrusions
Incidents	Thefts

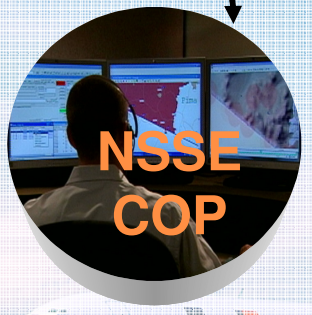
IT Events	
Network Intrusions	Stolen Identities
DDoS	Failures

Step Two: Common Security Picture

- Actor-identifying information
- Geospatial proximity
- Fusion (time, space)
- Matching, linking, pattern & anomaly detection

Lead sharing

Indicators and warnings



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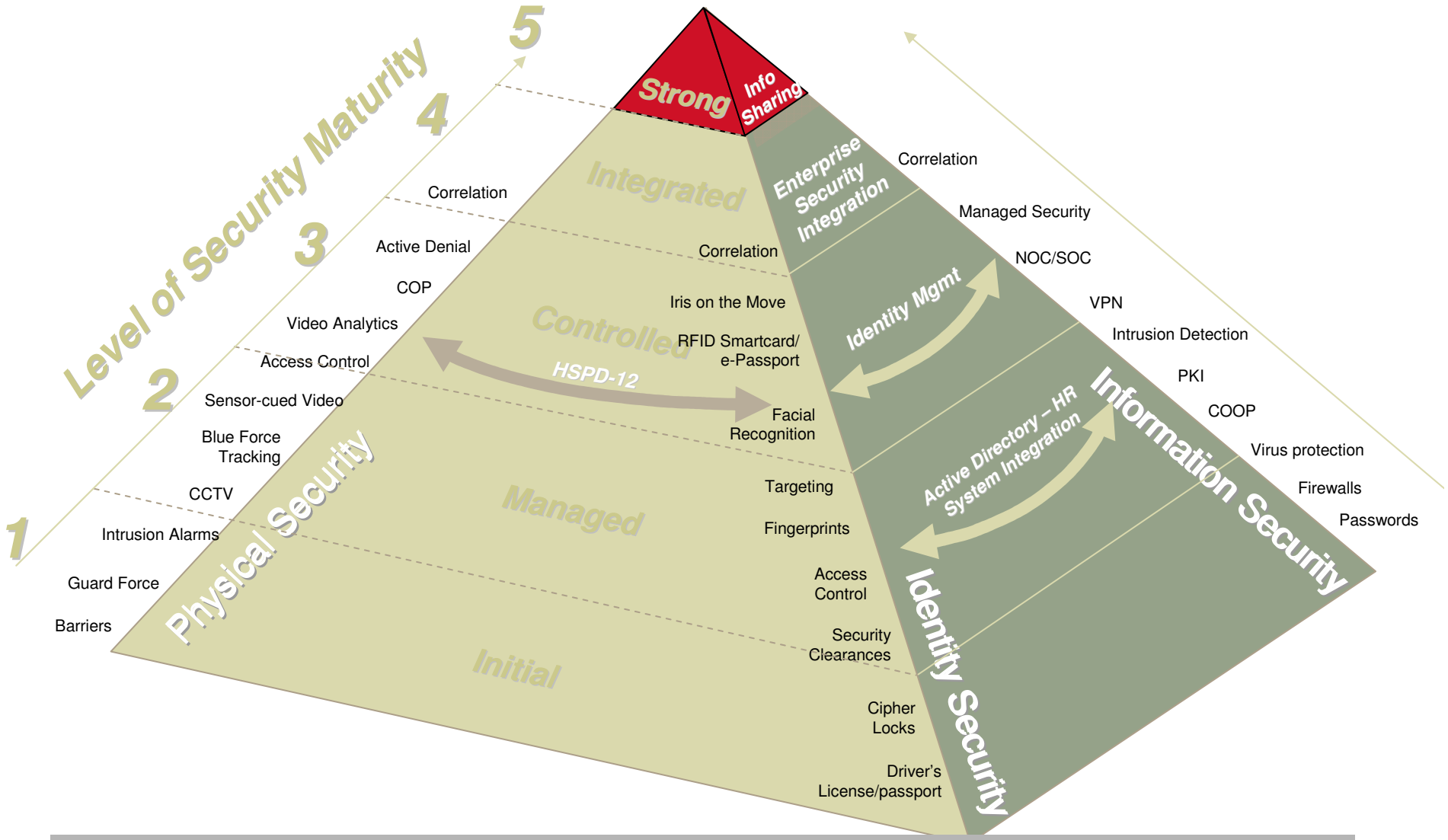
Security Technology Convergence



Drivers of Convergence: Need/threat and Internet Protocol

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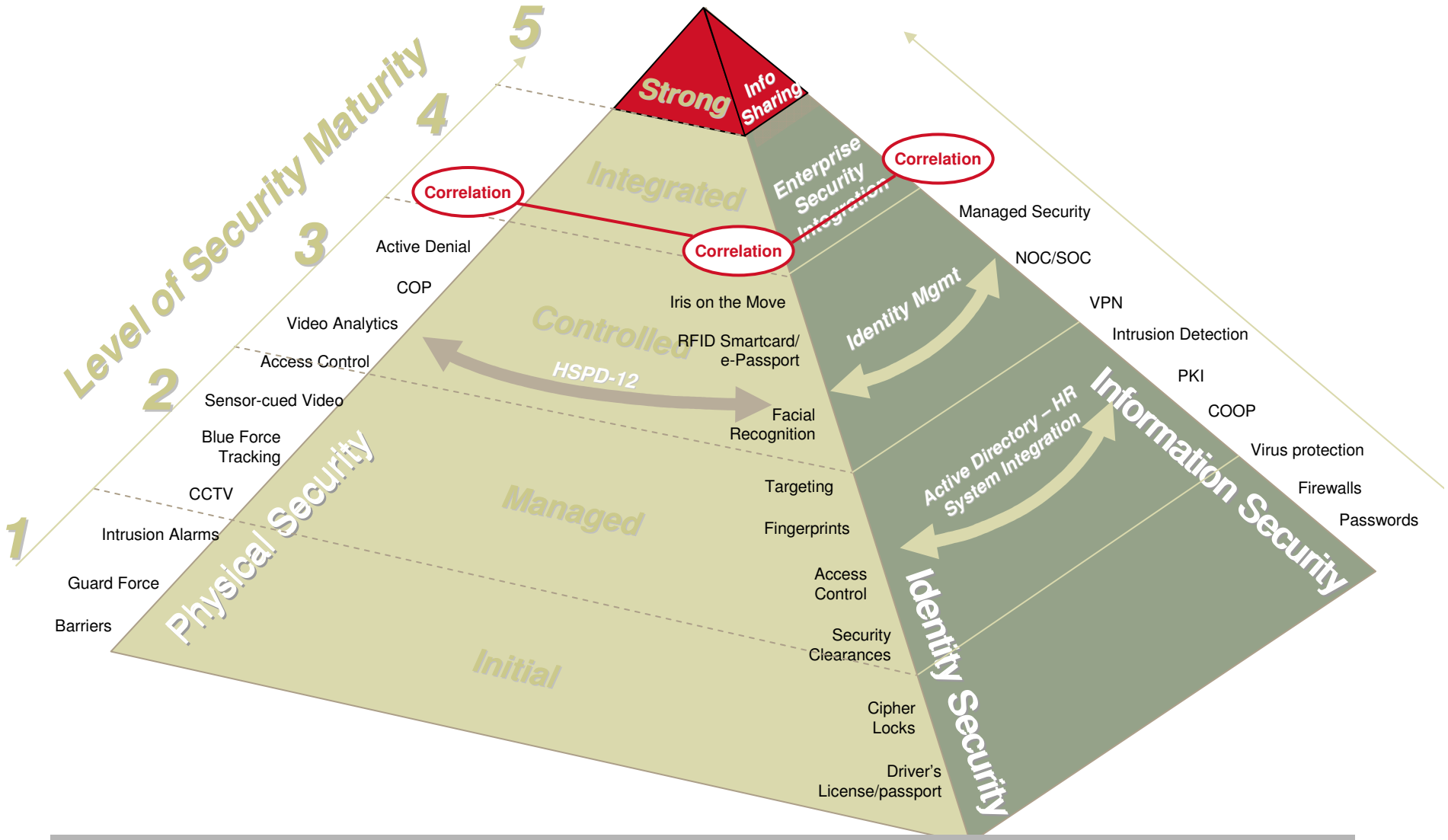
Security Technology Convergence



Drivers of Convergence: Need/threat and Internet Protocol

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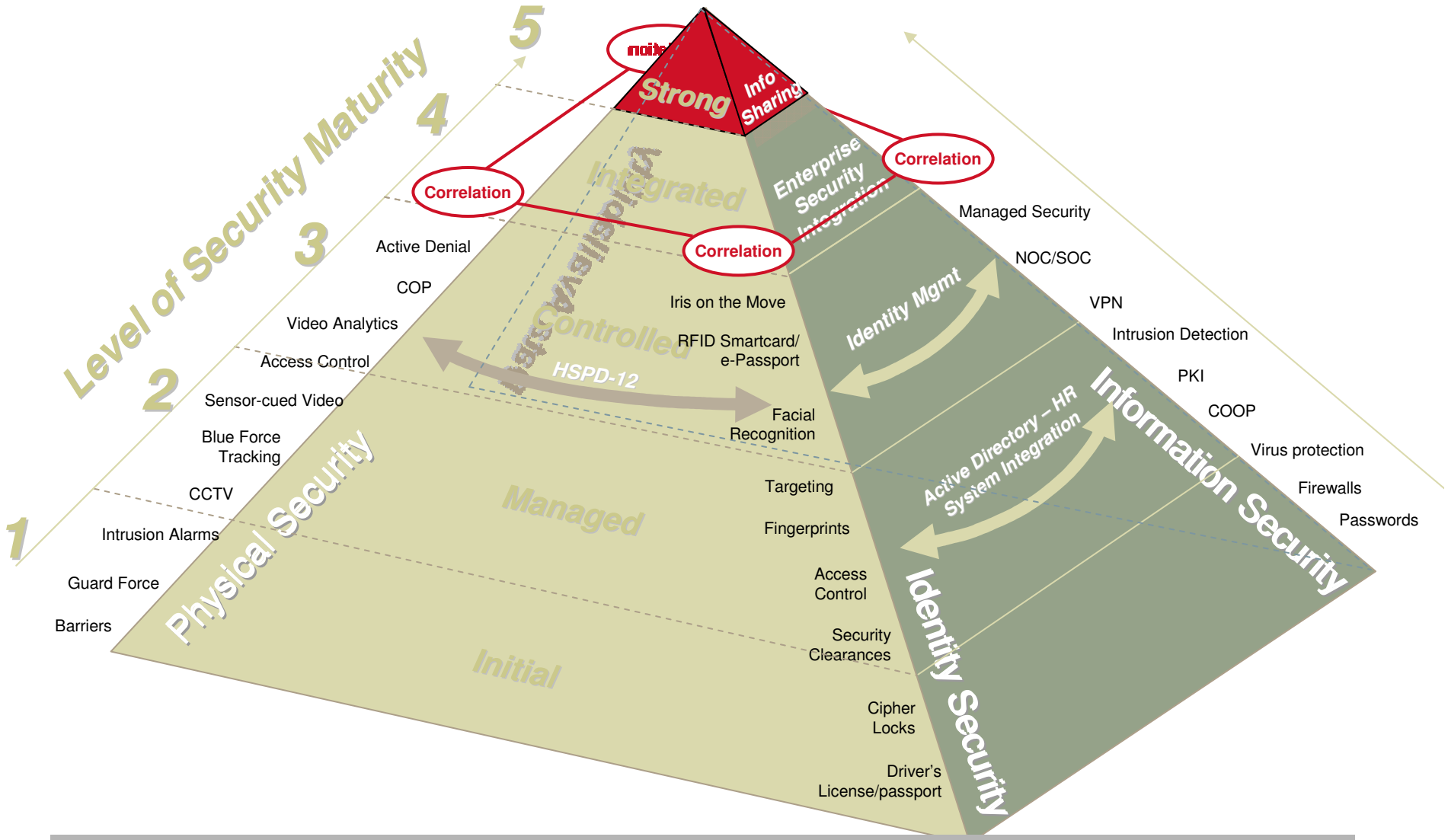
What's on the Back Side?



Drivers of Convergence: Need/threat and Internet Protocol

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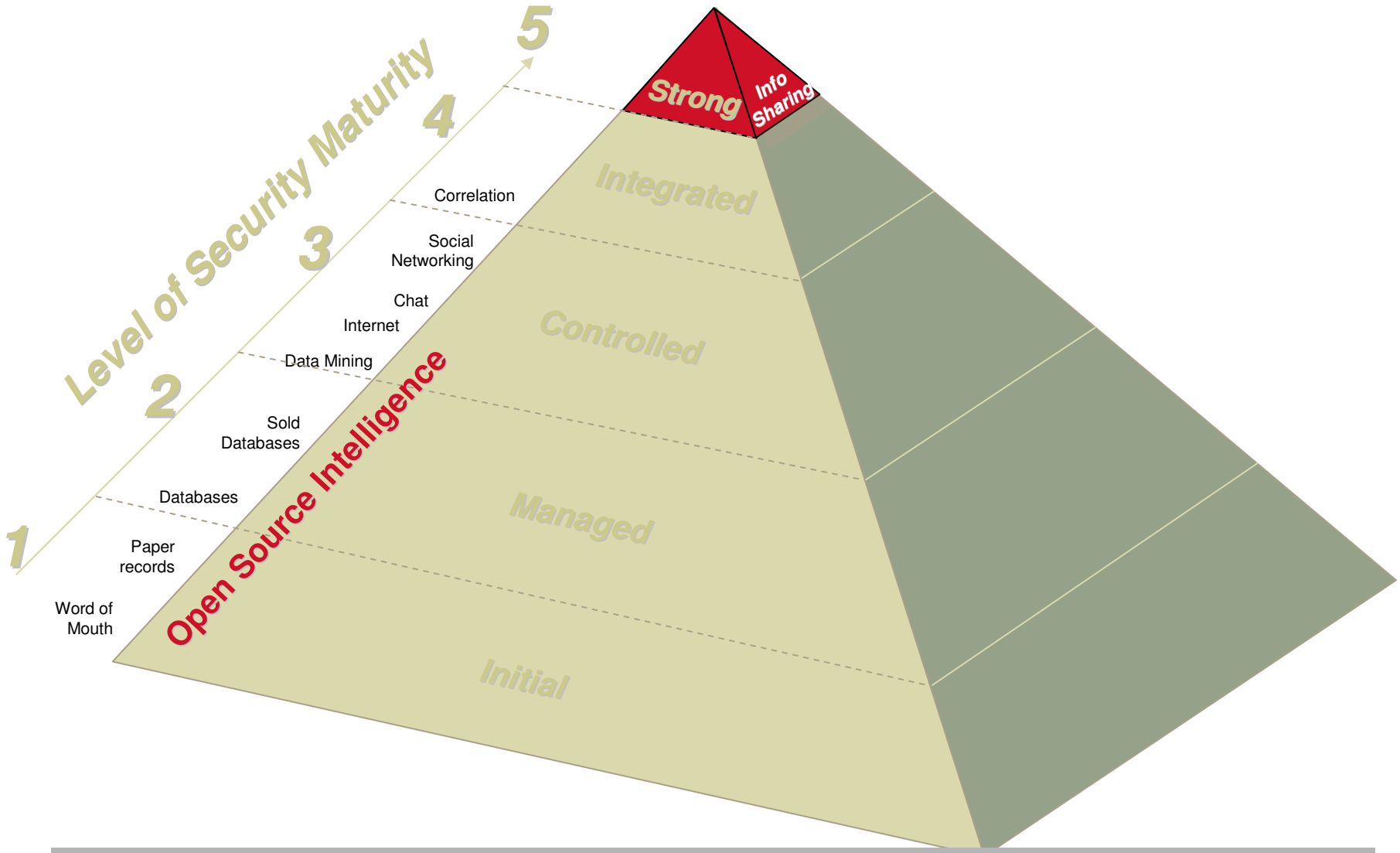
Availability of Information



The Availability of Intelligence is the 4th Factor in Security Technology Convergence

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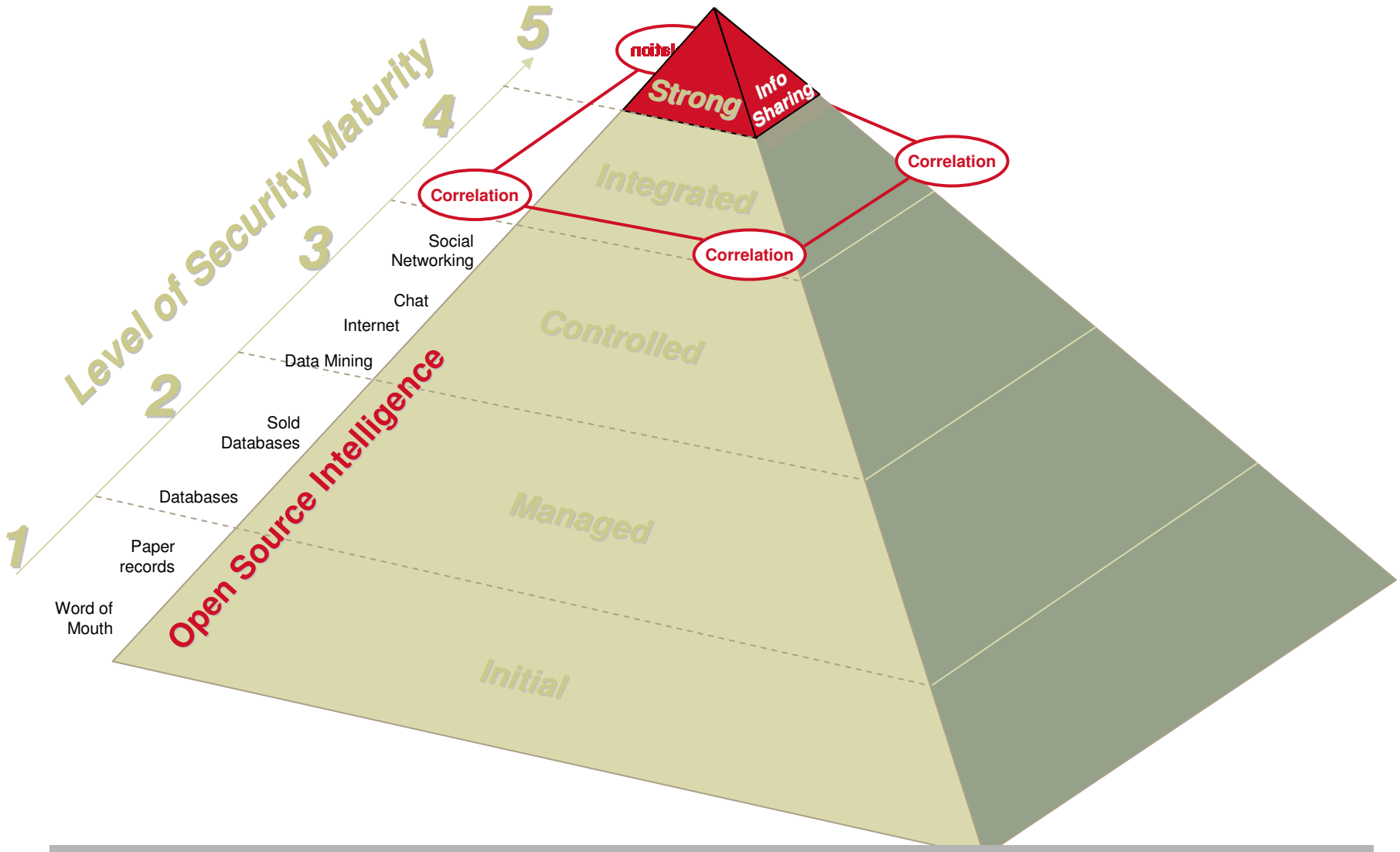
Availability of Information



Correlation and Sharing of Suspicious Events are the Key to Strong Security

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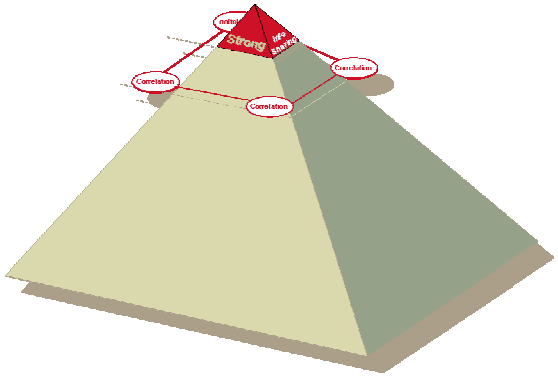
The Upshot

- A single, integrated solution for managing security in all three domains is inevitable
  - The “ERP of Security”
  - Better security for lower cost
- Correlation is key
- The more data available for correlation, the more complete situational awareness becomes, and the more proactive and therefore stronger you get
  - Inter-domain incident data
  - Intra-enterprise incident data
  - Open source intelligence



Prevent the next attack through automated vigilance

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Customer Success Is Our Mission

An Idea for the Petrochemical Industry

Security Must Be a Layered Defense with Integration across Domains

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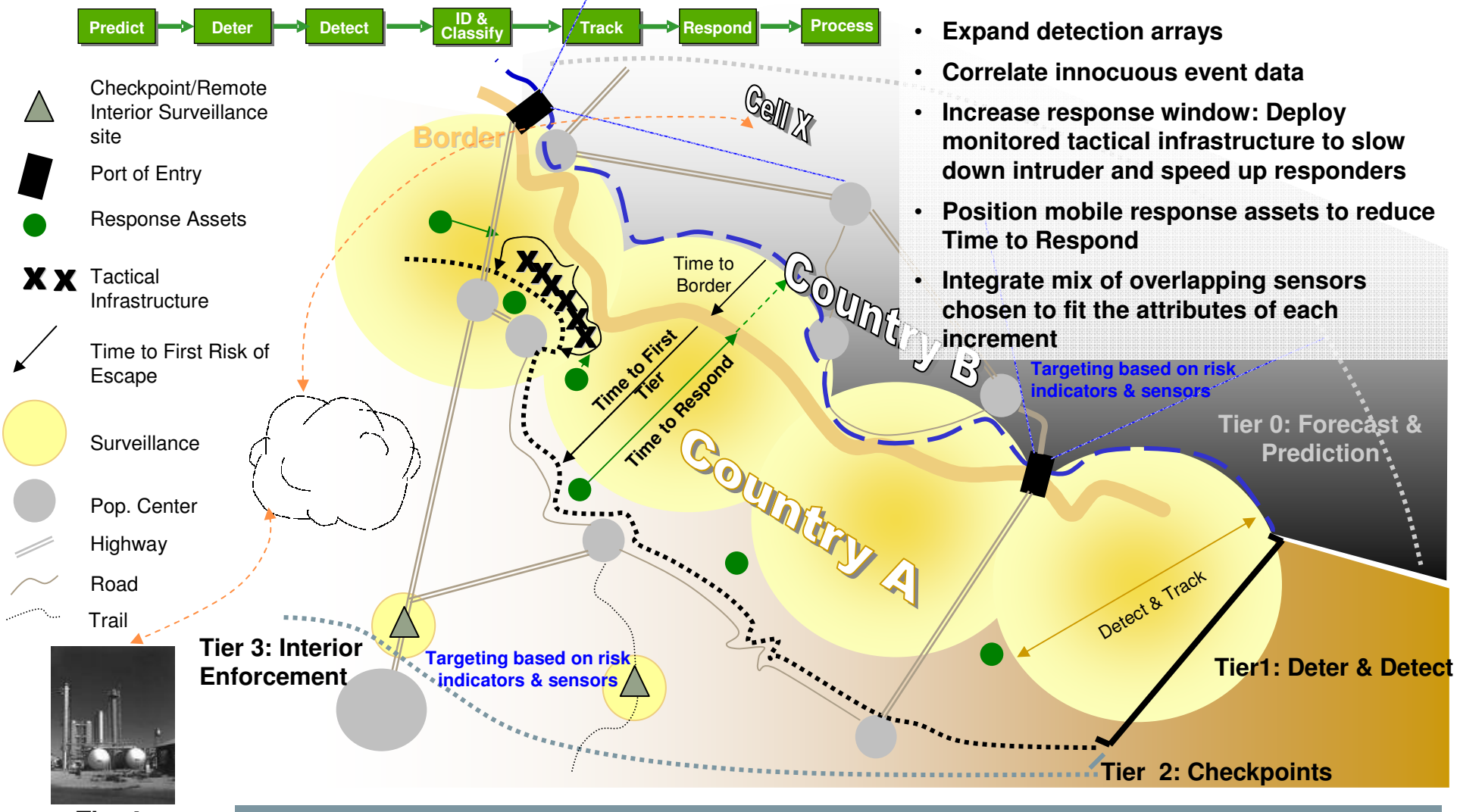
- Extend surveillance and intelligence to provide prediction for expanded response time
- Expand detection arrays
- Correlate innocuous event data
- Increase response window: Deploy monitored tactical infrastructure to slow down intruder and speed up responders
- Position mobile response assets to reduce Time to Respond
- Integrate mix of overlapping sensors chosen to fit the attributes of each increment



The right mix of people, processes, technology & infrastructure changes for effectiveness in each tier

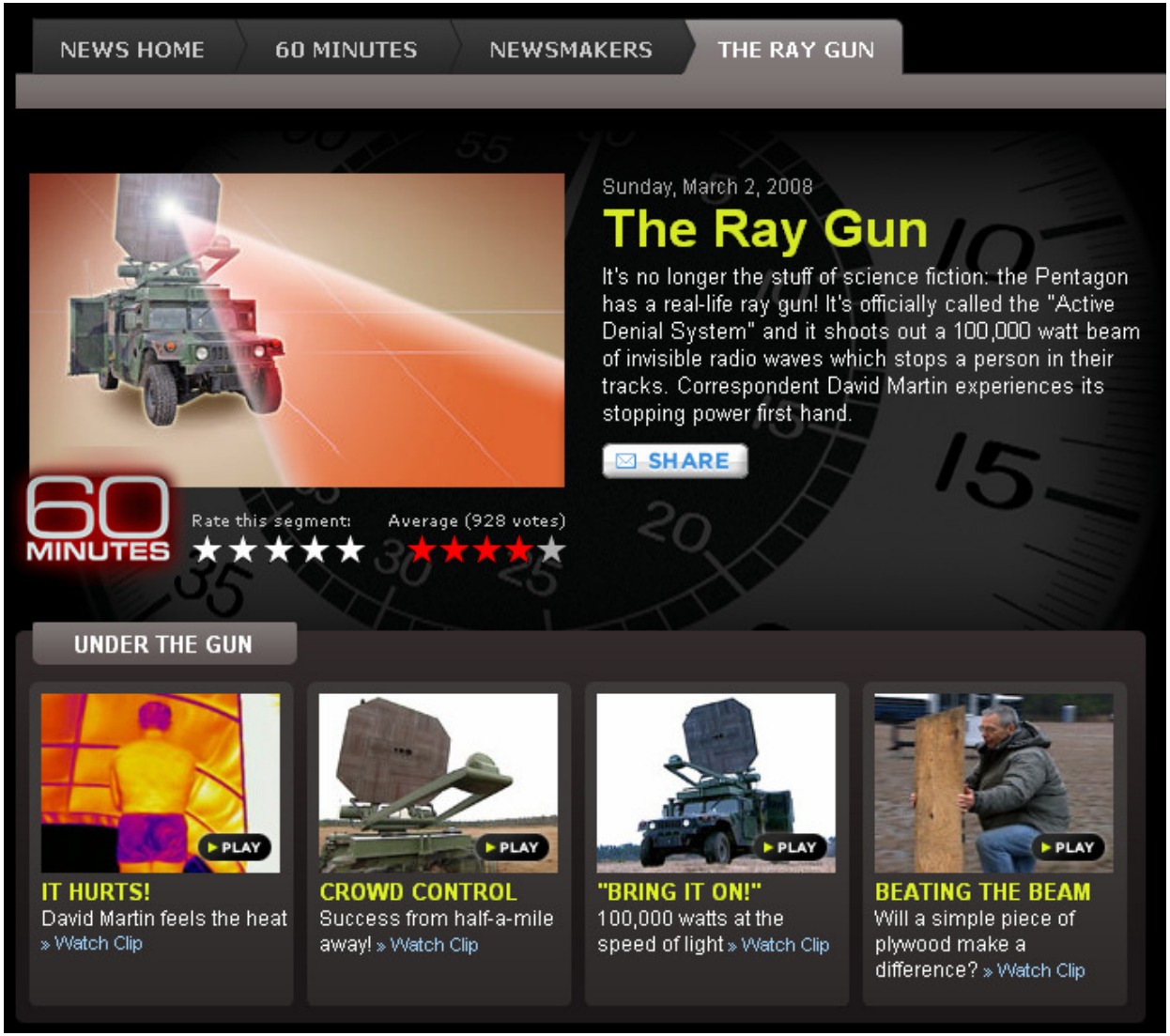
Active Deterrence

Q:

How do you delay a determined intruder until responders arrive, without collateral damage from lethal force?

A:

The Ray Gun



Silent Guardian™ Protection System For Critical Infrastructure Protection

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Silent Guardian™ projects high power millimeter wave directed energy

- A new less-than-lethal tool providing long range protection
- Deters and repels aggressors with zero casualties
- Establishes intent in real-time
- Repel phenomenology creates a compelling human flight response
- Effect is temporary and does not cause injury
- De-escalates aggression and outbreaks of violence
- Provides a zone of protection
- Speed of light delivery
- Commercial product is a 4th generation technology evolution

- Chemicals
- Petrochemicals
- Terminals
- Refining operations
- Production facilities

Infrastructure, Chemical & Energy Protection

Flexible employment
- Pier-side
- Tug escort
- Helo-loaded

Relocatable protection
- High value assets
- Sensitive cargos
- Keep-out zones

Port & Maritime Protection