HP World 2002 - Session 7084

Managing Risk: Architecting The Secure Enterprise

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Agenda

- Security Mindset
- Security Framework
- Planning Effort Approach
- Solution Definitions
- Key Results
- Case Studies

Session Objectives

- Gaining a basic insight into security issues and terminology
- Defining how to align business priorities with security architecture
- Identifying flexible security alternatives and solutions that provide the appropriate level of protection

Why Security? Many Focus on Fear, Uncertainty, and Doubt...

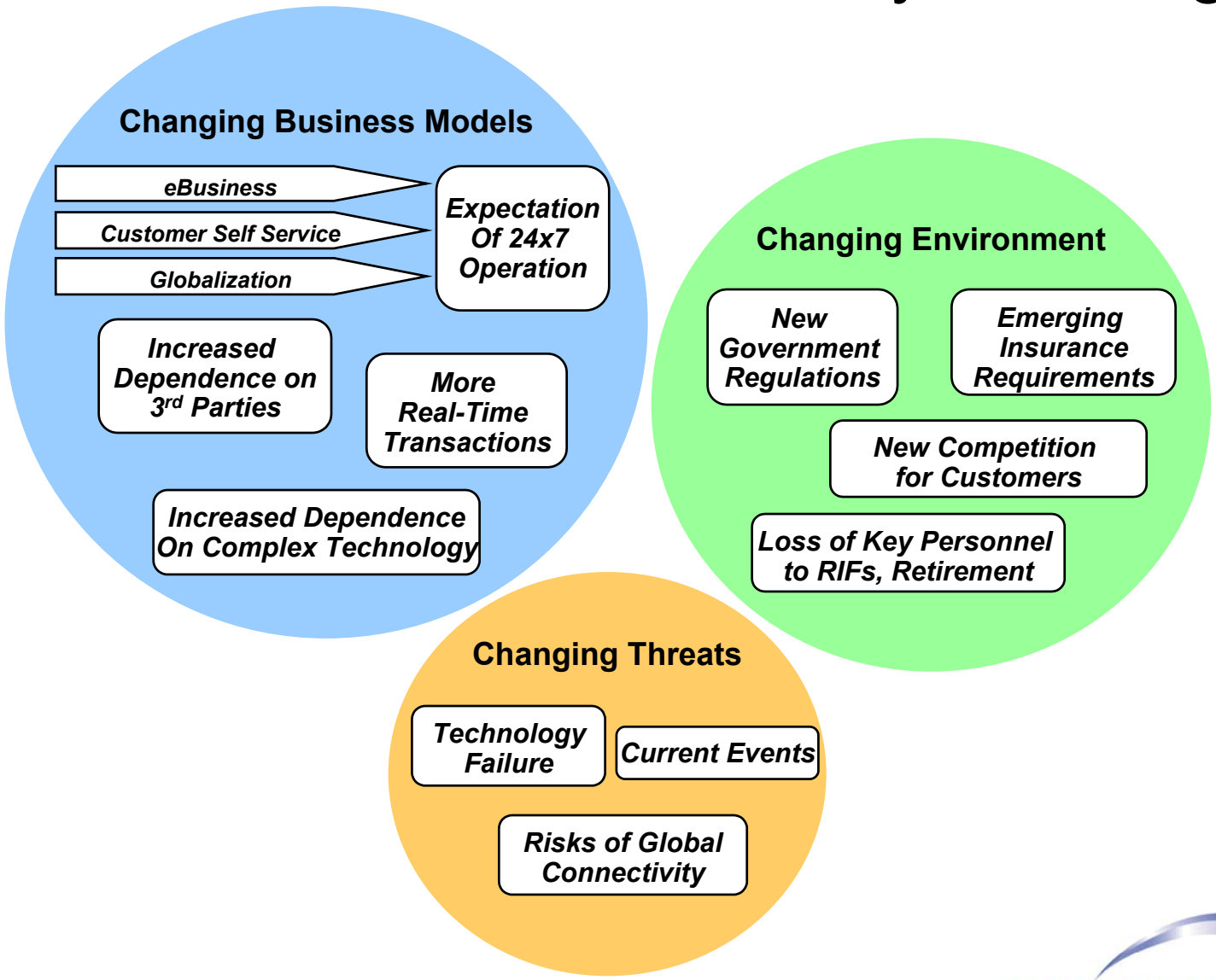
- Enterprises engaged in Web commerce are three times as likely to experience security breach (PricewaterhouseCoopers)
- Financial losses from computer crime $80B by 2003 (FBI)
- 62% of organizations responding to CSI survey reported security breaches within last 12 months

… but the Truth is that CXO's:

- **Are concerned about their organization's ability to proactively manage risk in their environment**
- **Find themselves never quite getting a handle on the issues that most impact the business - everything seems tactical**
- **Never quite feel that security technology investments maximize the efficiency and effectiveness of investments in security technology**
- **Are seeking to build a framework and develop a strategy for addressing security from an enterprise perspective**

Business executives require a practical framework and architecture access to make informed decisions regarding the security posture of their environment

Motivations for Security Planning



What has to change in the security model and mindset?

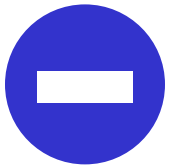
- Focus on the business not on technology - eBusiness is still a core strategy
- It's okay not to be perfect just balance exposure and risk against investment - "proper level of investment"
  - Vulnerabilities will always exist understand them to guide a strategic path
  - Don't feel guilty
- Encourage, enable access; Don't confuse the concepts of access and trust!!!
- A quickly done plan eases angst and establishes the basic roadmap - the 80/20 rule!!
- Security model must adapt to the world beyond our control - that's the point

Effective Security

What has to be considered for an effective security plan?

Risk

Vulnerability, threats and impact



Access

Asset privacy and utilization

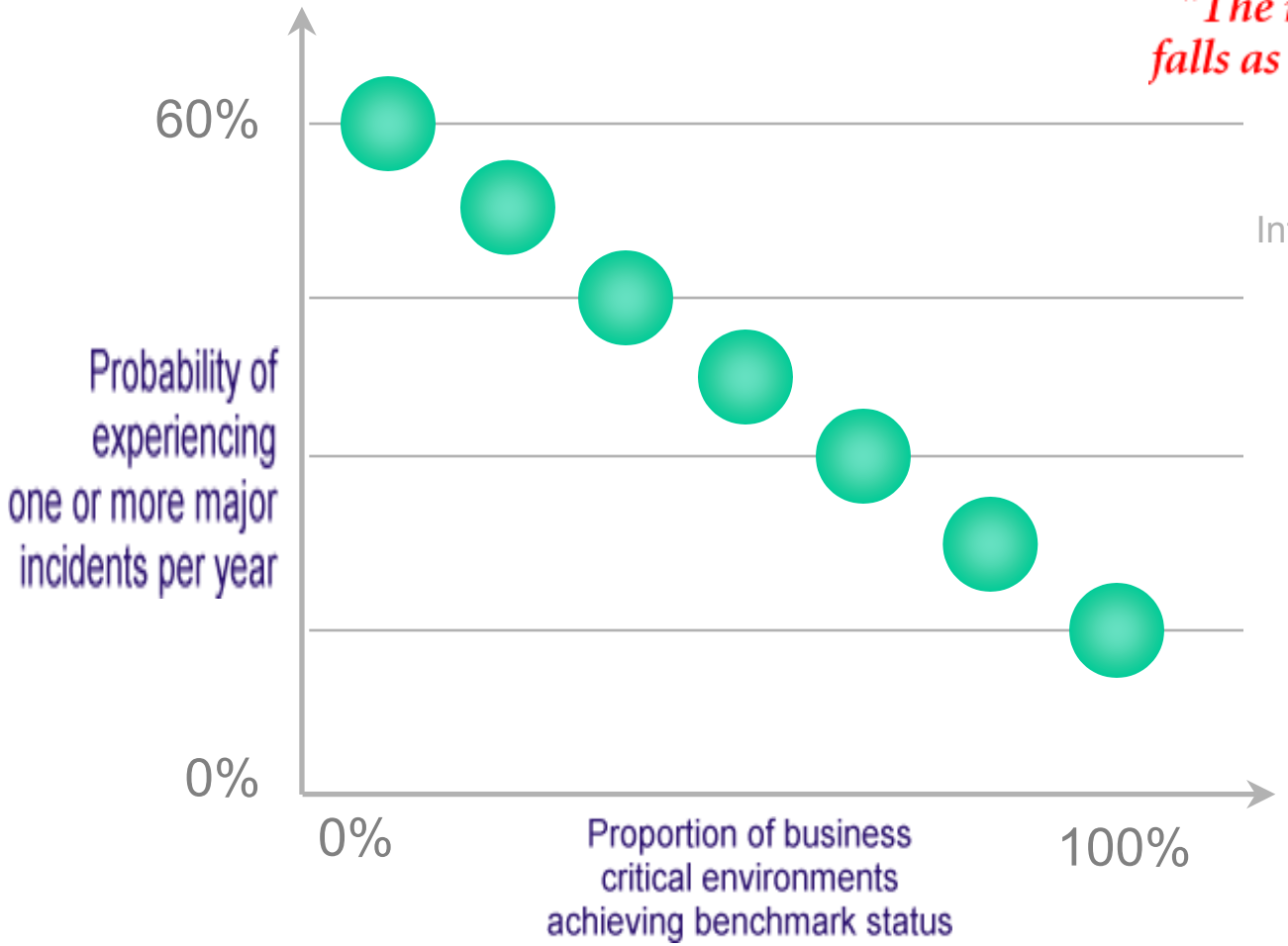
Trust

Confidence and information integrity

Compliance

Policy, best practices and legislation

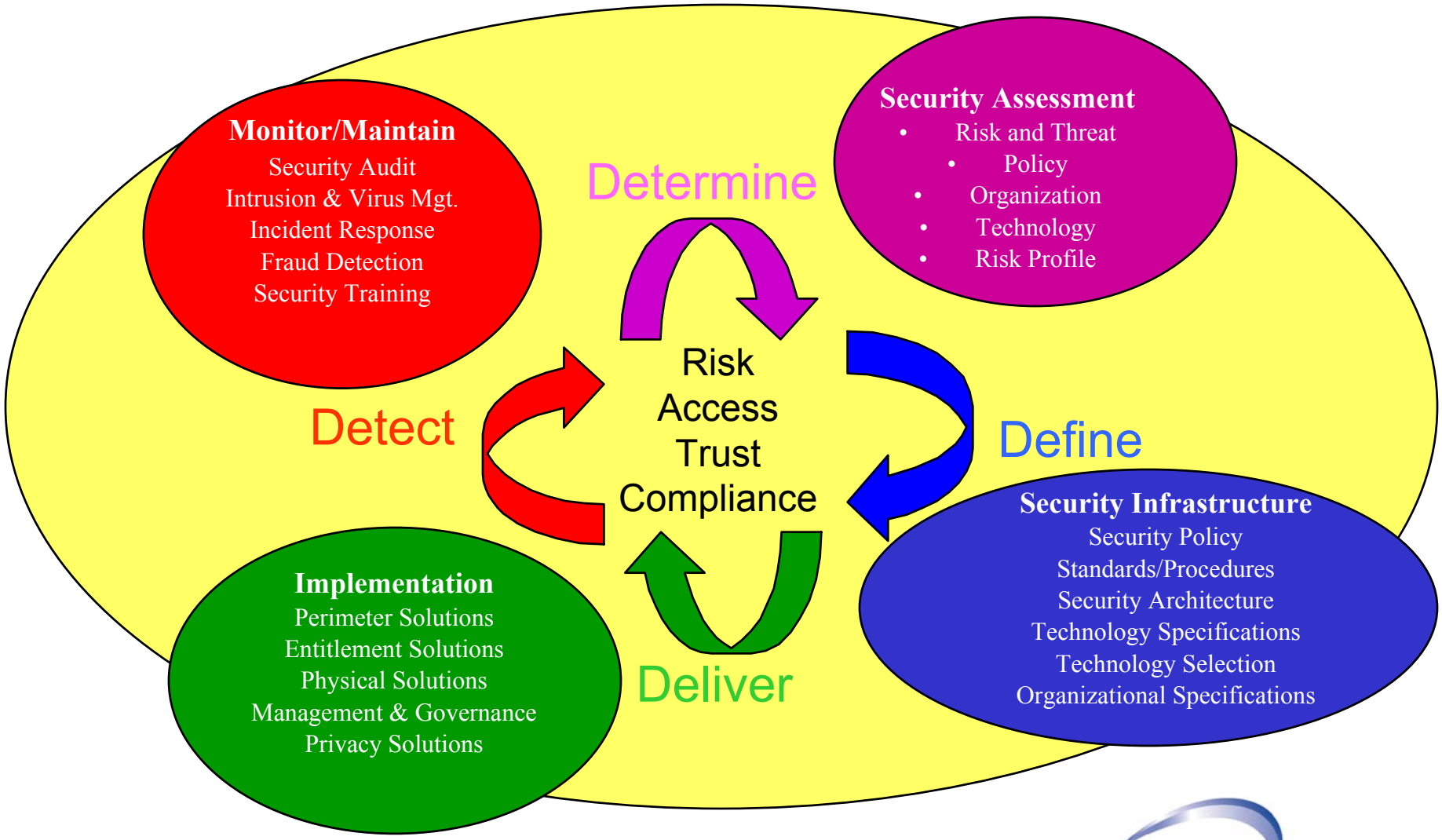
Does Security Work?



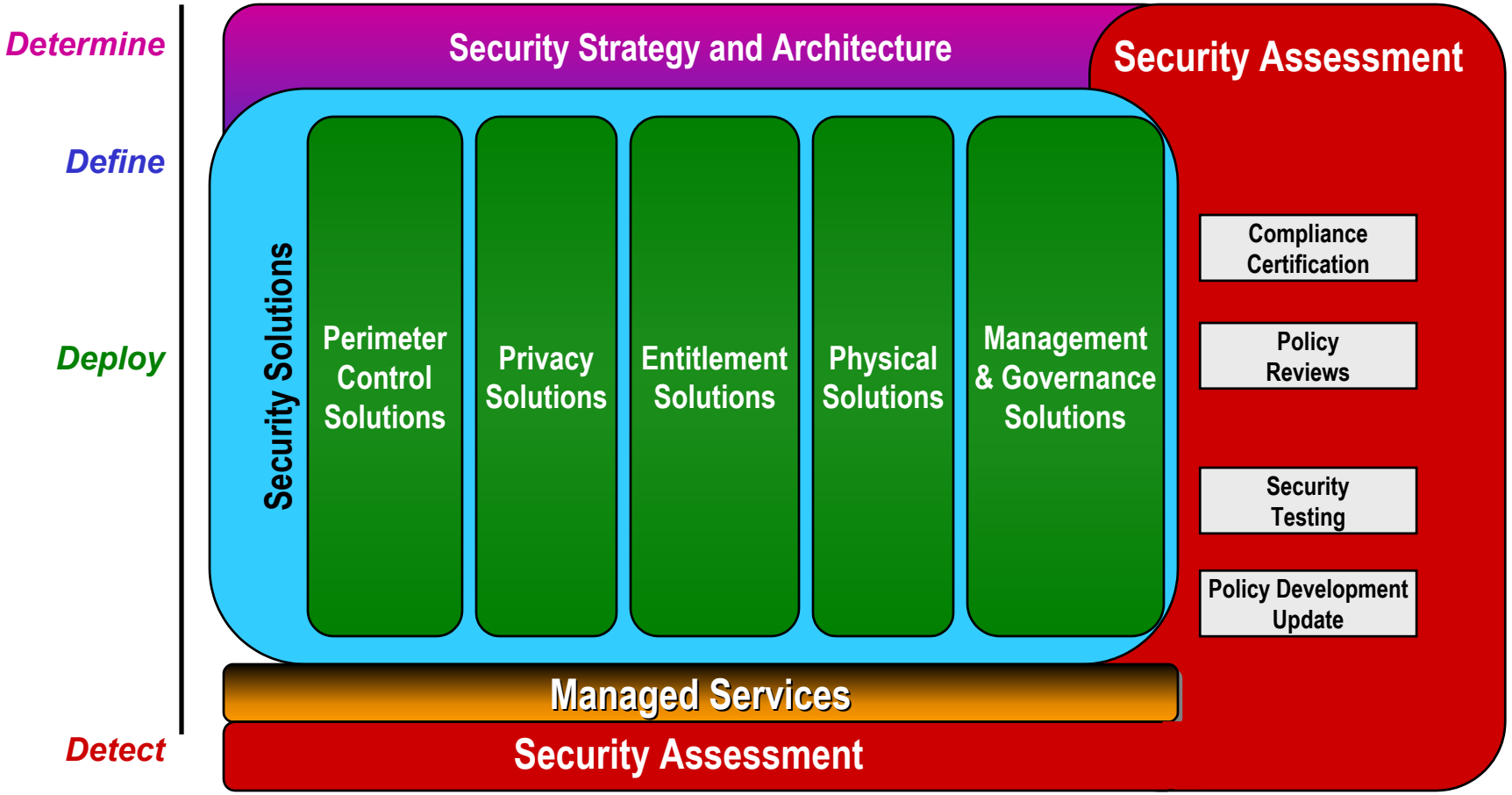
"The risk of major incidents falls as more business critical environments achieve benchmark status"

International Security Forum

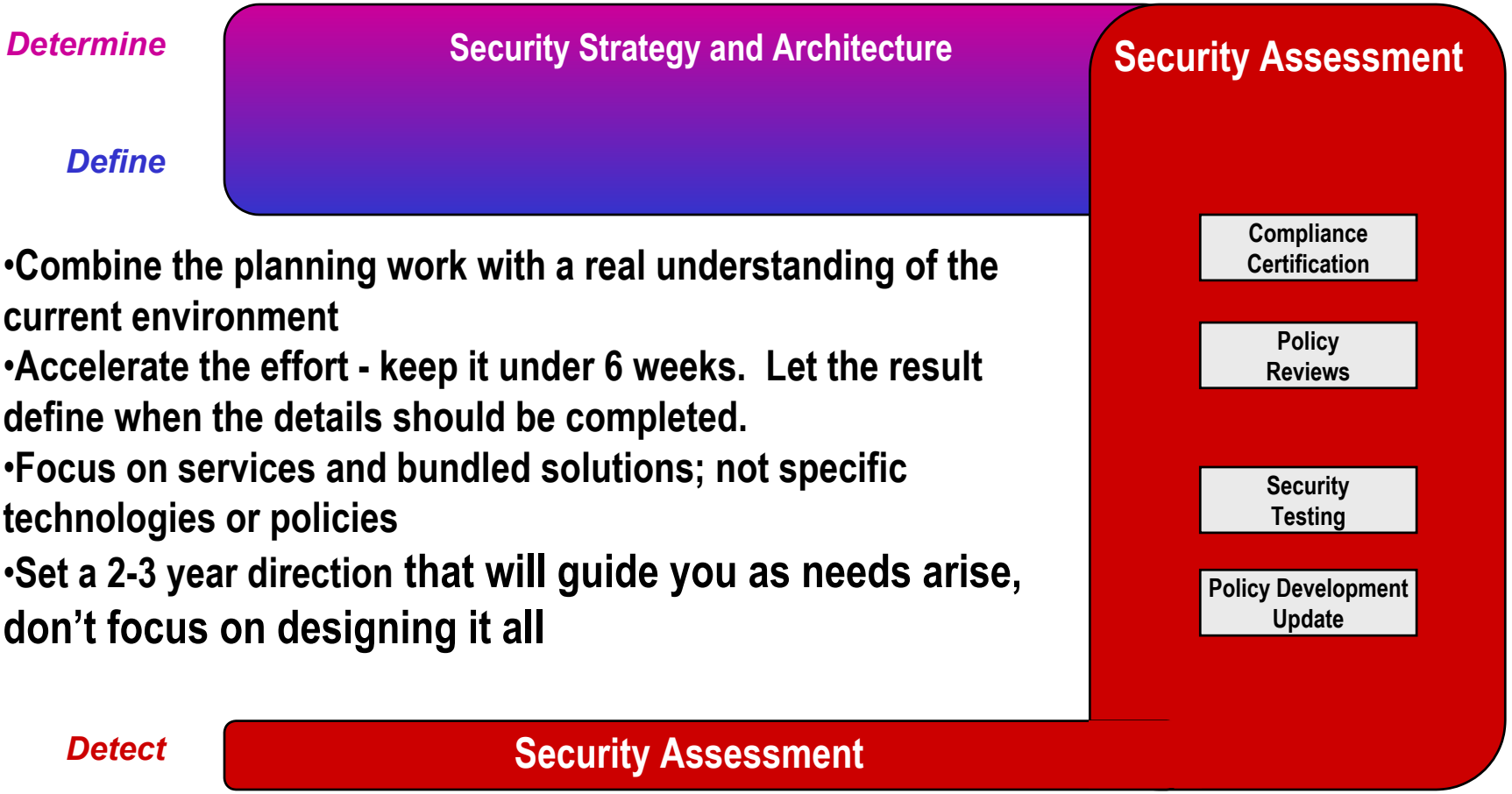
The 4-D Model


Monitor/Maintain
Security Audit
Intrusion & Virus Mgt.
Incident Response
Fraud Detection
Security Training
Security Assessment
• Risk and Threat
• Policy
• Organization
• Technology
• Risk Profile
Determine
Detect
Risk
Access
Trust
Compliance
Define
Security Infrastructure
Security Policy
Standards/Procedures
Security Architecture
Technology Specifications
Technology Selection
Organizational Specifications
Implementation
Perimeter Solutions
Entitlement Solutions
Physical Solutions
Management & Governance
Privacy Solutions
Deliver

Context for 4-D

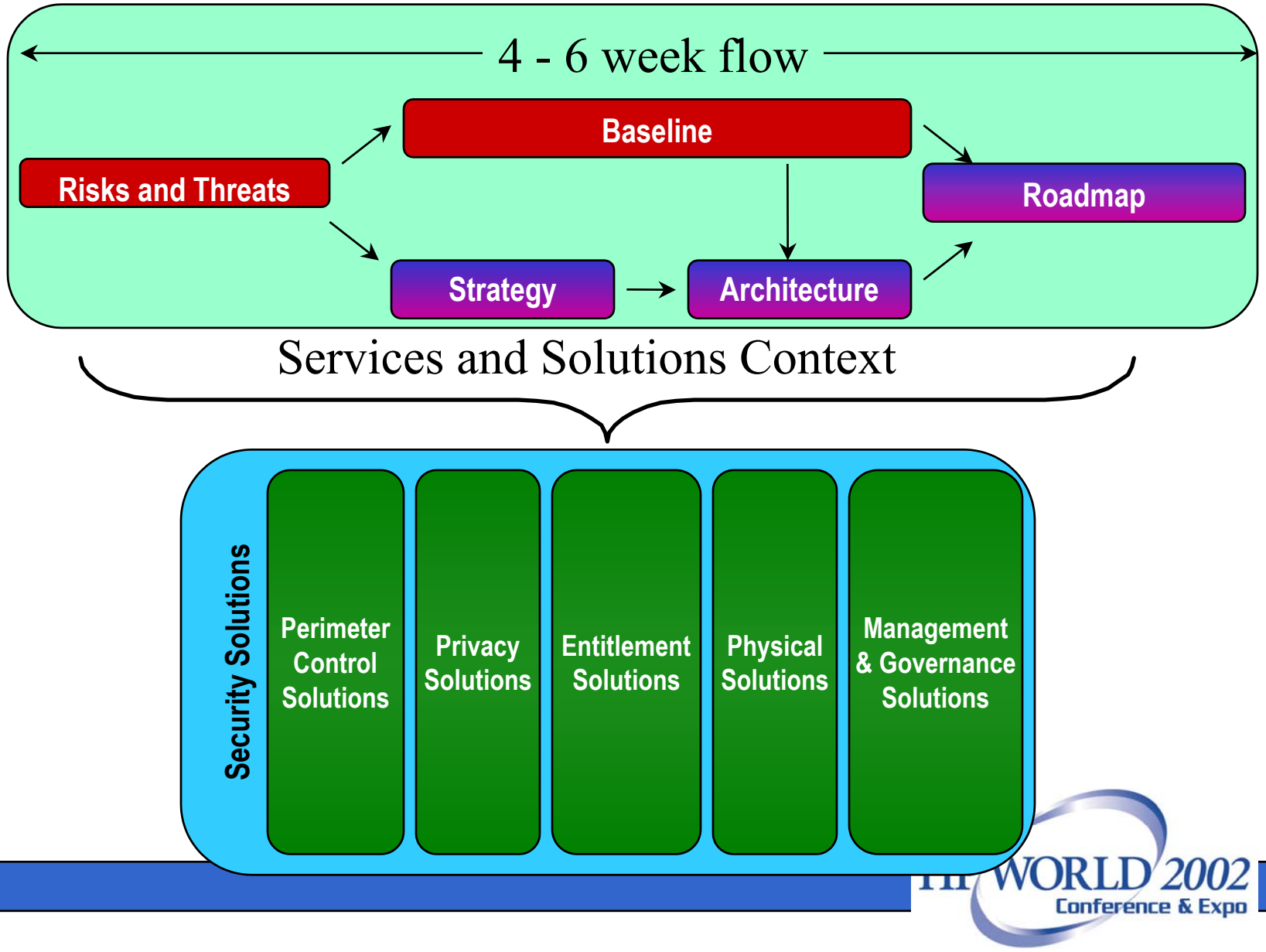


Defining an Adaptive Roadmap

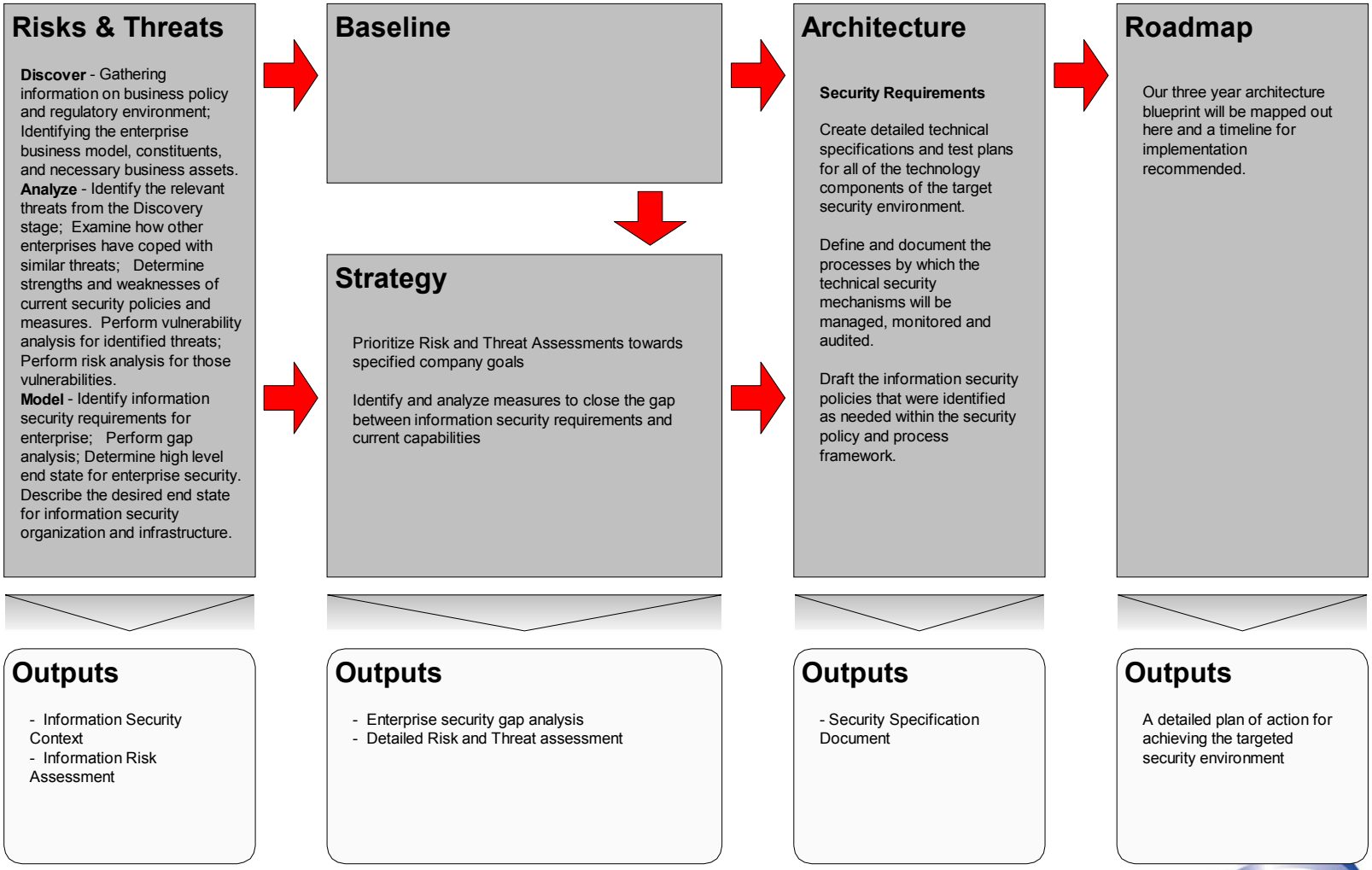


- Combine the planning work with a real understanding of the current environment
- Accelerate the effort - keep it under 6 weeks. Let the result define when the details should be completed.
- Focus on services and bundled solutions; not specific technologies or policies
- Set a 2-3 year direction that will guide you as needs arise, don't focus on designing it all

Accelerated Approach



Strategy and Architecture



Perimeter Control Solutions

Protecting the organization from risks of downtime, loss of data, cash or other critical assets from threats that are external to the enterprise (e.g., Internet, business partner networks)

Service	Definition / Key Characteristics
Network Partitioning Services	• Connectivity and security technologies needed to isolate networks from other networks • Technology to create DMZs • Predictive blocking
Virus & Content Control Services	• Technologies for improving data and system integrity by preventing or controlling the transmission of hostile applications

Entitlement Solutions

Entitlement is establishing the rules and infrastructure around trust and the consequential permissions.

Service	Definition / Key Characteristics
Authentication Services	• Verification of the identity of communicating endpoints • Each party presents “proof of identity” to the other party • Each party then associates the communication “session” with the identity of the other party until the session ends
Authorization Services	• Associates an identity with the permissions assigned to it • Permissions are often recorded in a structured data store • Permissions can be User-based or Group profile-based (role-based) • Typically depends on a Directory Service to hold information

Privacy Solutions

Privacy is ensuring that information is only shared between parties with the appropriate rights. Participants must feel safe in balancing trust and need.

Service	Definition / Key Characteristics
Encryption Services	• Technologies for storing or transmitting information in a such a way that it can only be read by a designated party or parties
Privacy Governance Services	• Formal risk management approach for privacy • Privacy training • Third-party verification services

Management and Governance Solutions

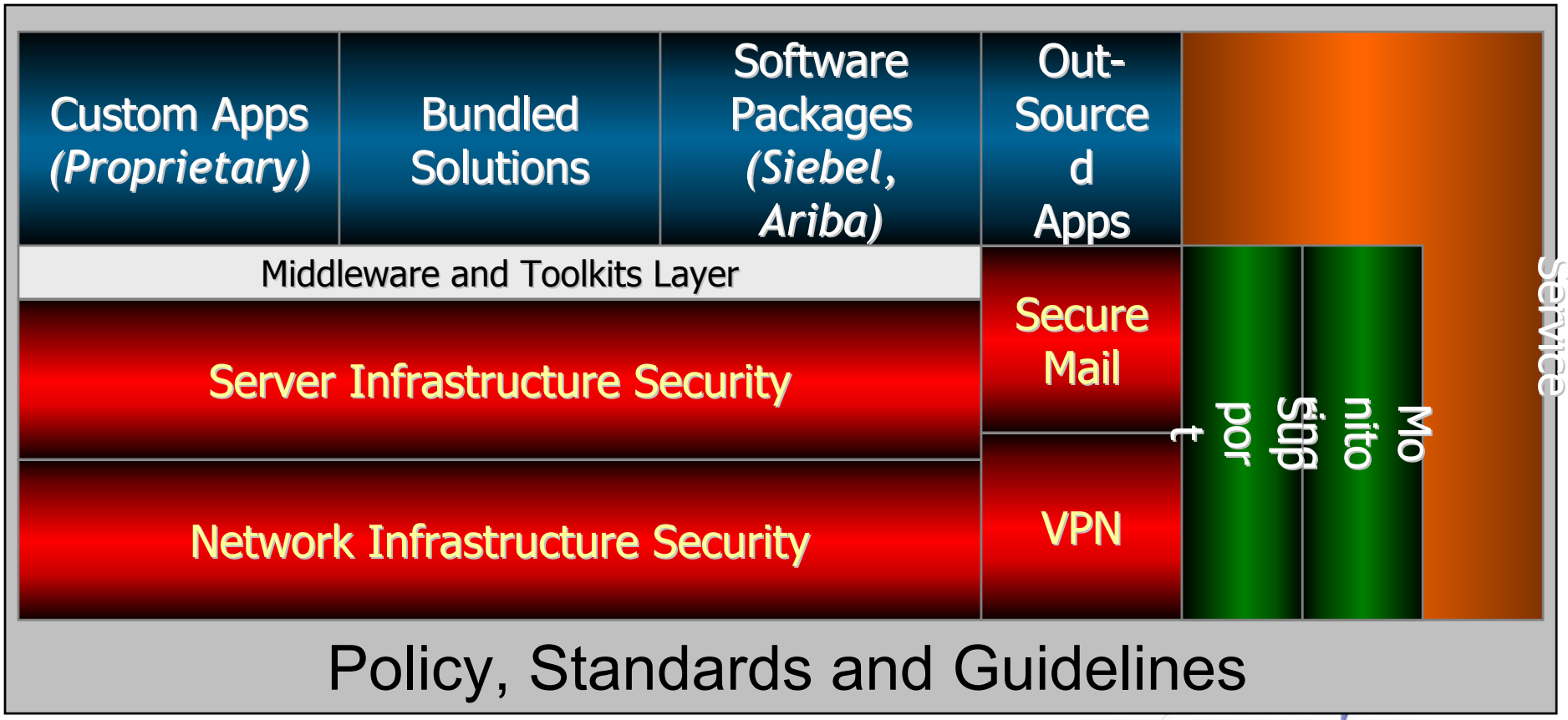
Policies, Standards, and Guidelines to oversee the execution and response of security solutions. Areas addressed include:

- Governance Organization
- Incident Management
- Training
- Measurements and Metrics
- Vulnerability and Security Assessment Cycles
- Standards Maintenance and Stewardship
  - Technology
  - Physical

Result of Process Must Include...

- Security Technology Architecture
  - Aligned to business
  - Mirrors budget and resource realities
- Management and Governance Architecture
- Roadmap
  - Reflects priorities
  - Contains communications plan
  - Includes budget estimates

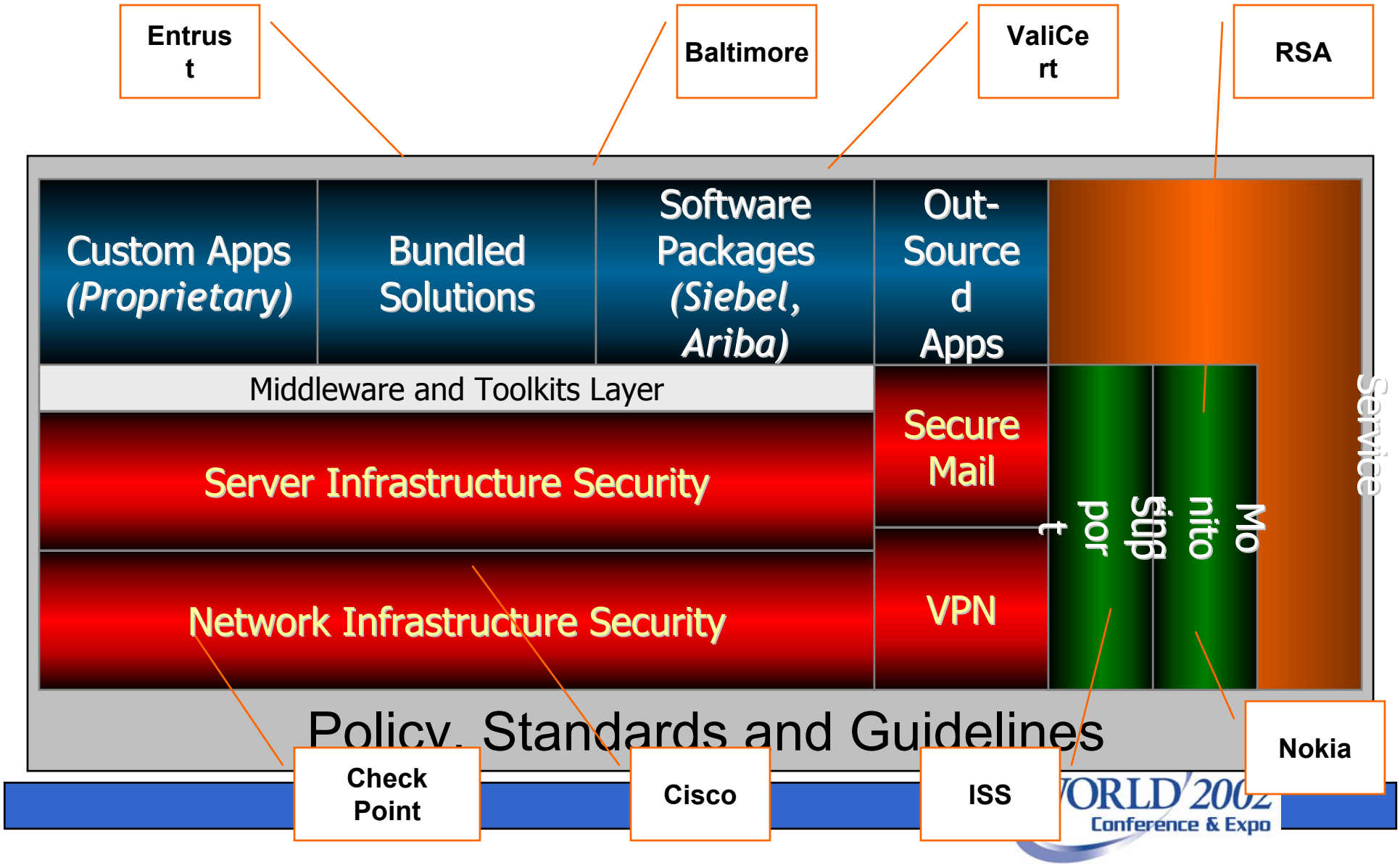
Technology Security Architecture -
… employs a unified approach to security



Partners Matter

Focusing On Reality Means Staying Away from Theory

Partners Matter (2)



Case Studies

Final Thoughts & Questions

- *Solutions and services over technologies*
- *Fast track the planning process*
  - *Reduce your need for perfection and get moving*
- *It's about the business not about cyber warfare*

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