Trusted Network Connect: Enabling Dynamic, Interoperable Security

April 20, 2009

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Agenda

TCG Overview

Introduction to TNC Architecture

Interface Walk-Through

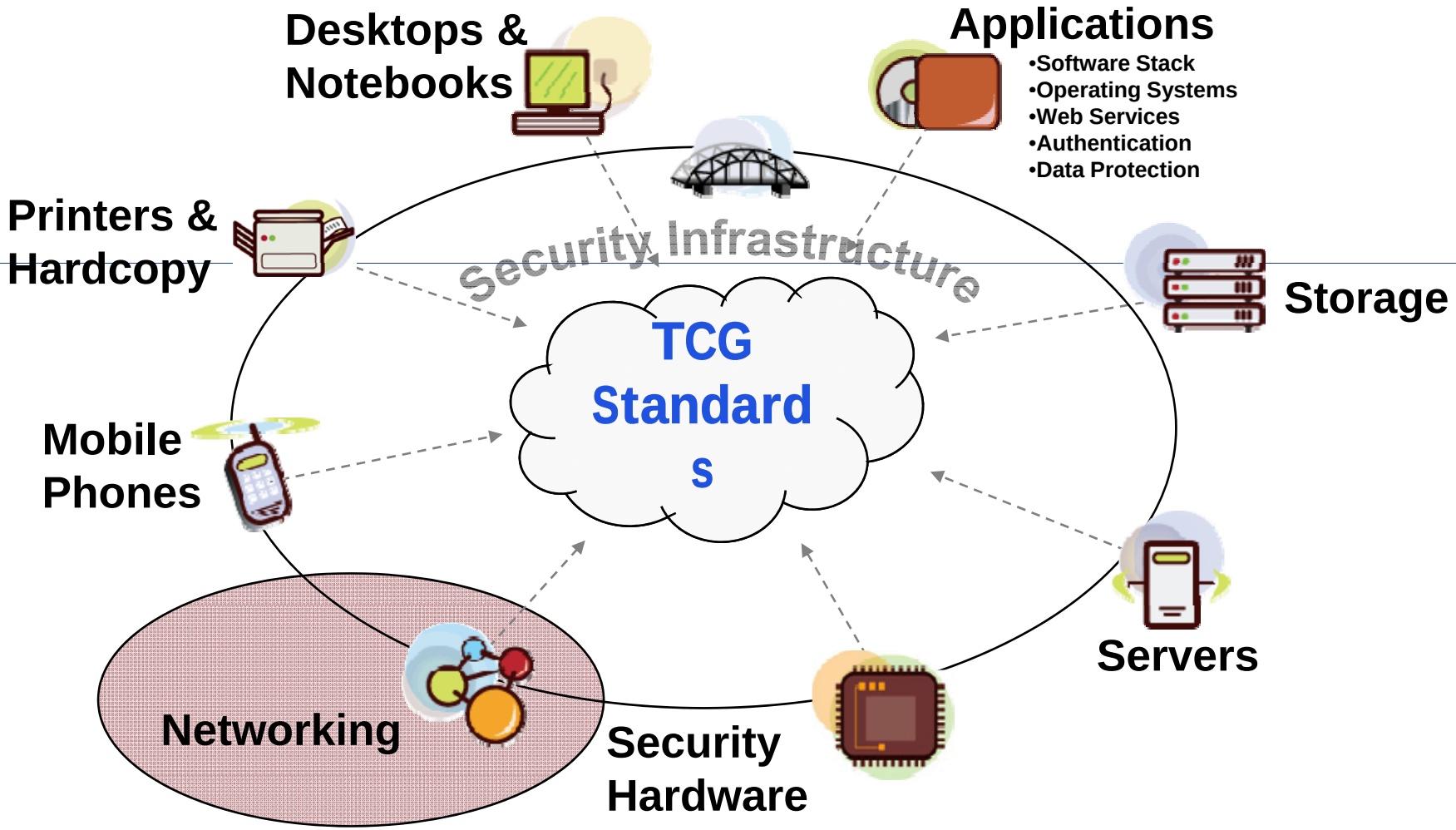
Implementation Discussion

Interoperability Benefits

Hands-on Demonstration

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TCG: The Big Picture



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Trusted Network Connect (TNC)

Open Architecture for Network Access Control (NAC)

- Completely vendor-neutral
- Strong security through trusted computing

Open Standards for NAC

- Full set of specifications available to all
- Products shipping for more than four years

Work Group of Trusted Computing Group

- Industry standards group
- About 175 member companies in TCG, 75 in TNC-WG
- Includes large vendors, small vendors, customers, etc.



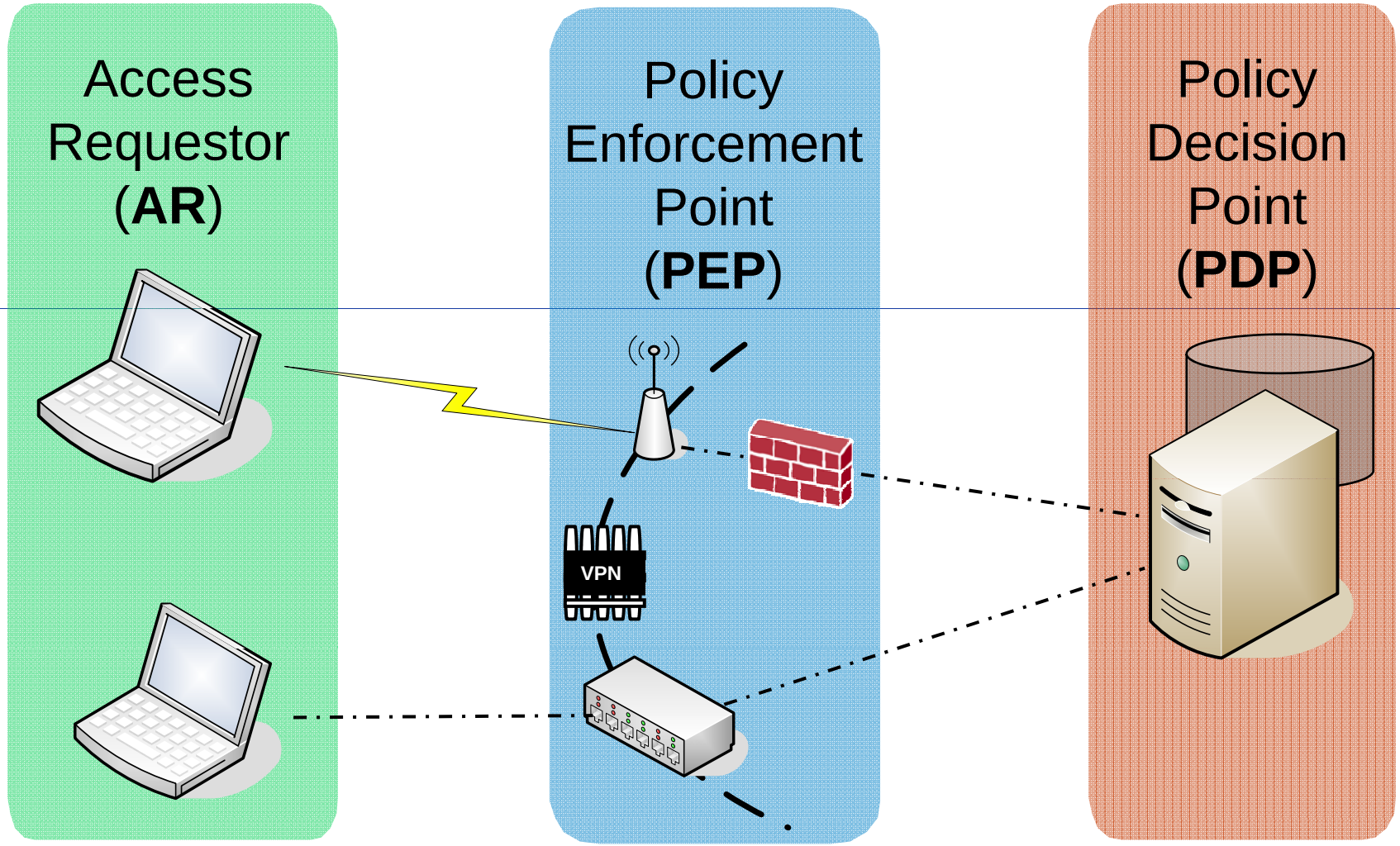






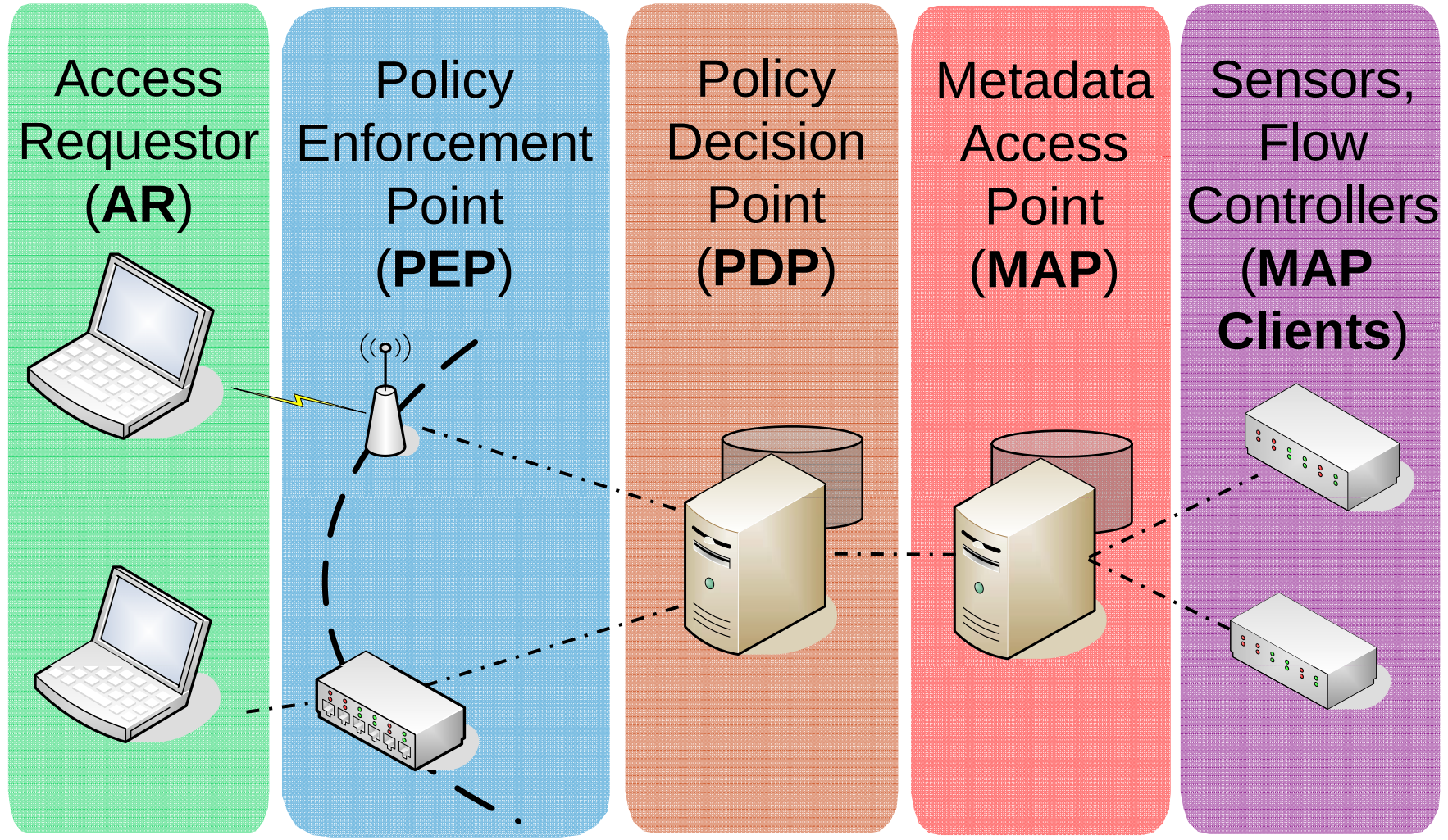
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Basic NAC Architecture



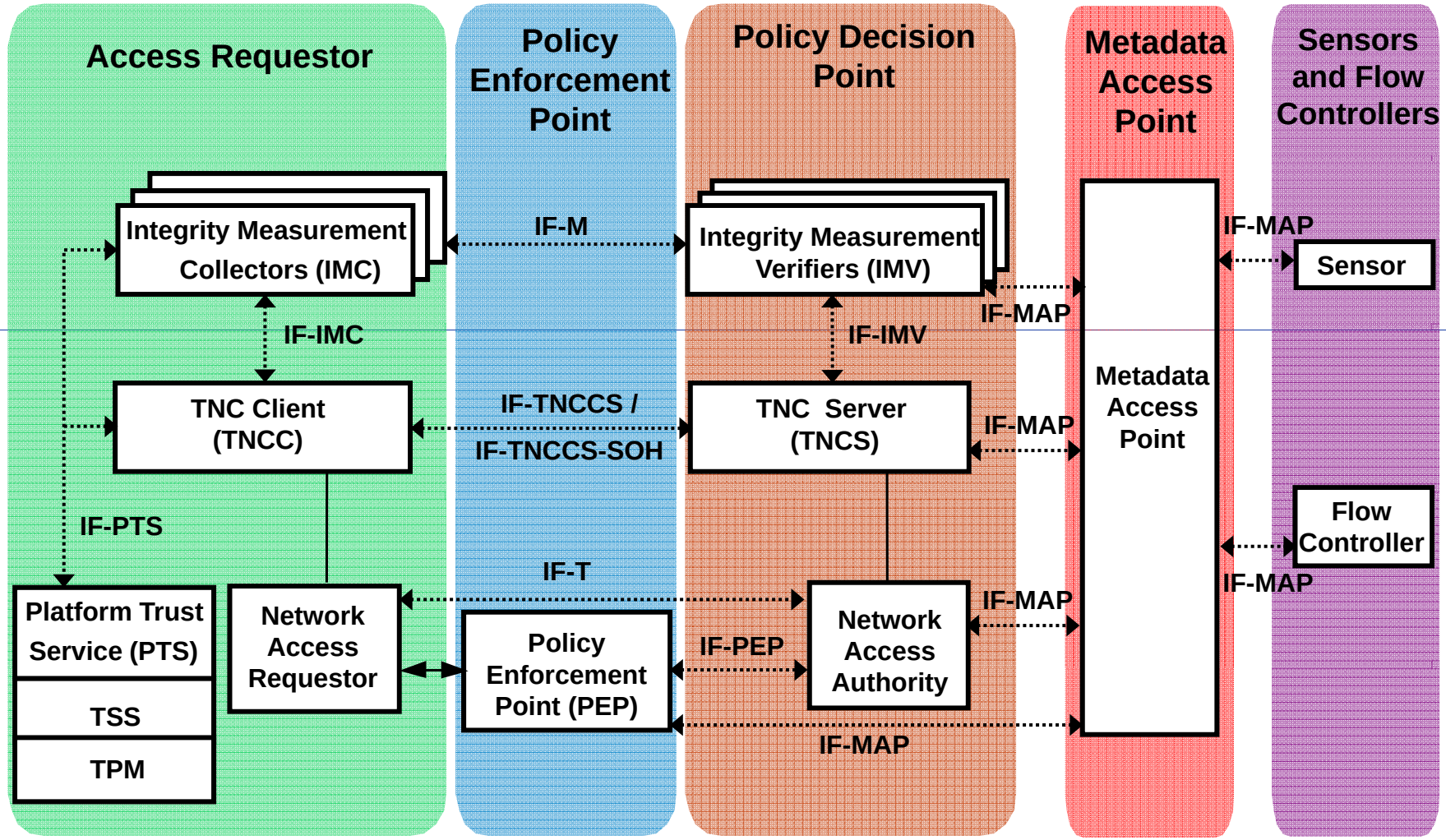
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Integrating Other Security Devices



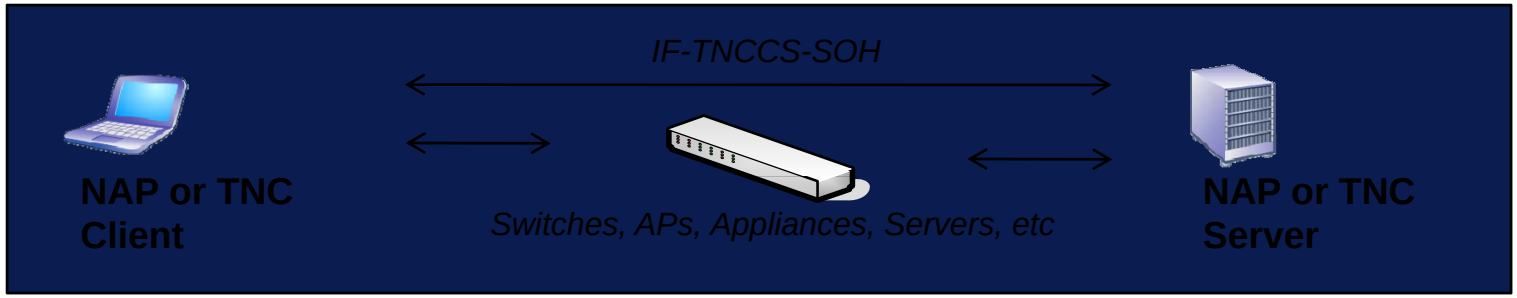
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TNC Architecture



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Microsoft NAP and TNC



IF-TNCCS-SOH Standard

Brings Microsoft NAP into TNC Architecture

Built into Windows Vista, Server 2008, XP SP3

- Also built into products from other TNC vendors

Open standard client-server NAC protocol

- True client-server interoperability (like web browsers and servers)
- Industry (except Cisco) has agreed on TNC standards for NAC

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IETF and TNC

IETF NEA WG

- Goal: Universal Agreement on NAC Client-Server Protocols
  - Co-Chaired by Cisco employee and TNC-WG Chair

Adopted TNC protocols as WG drafts

- TCG calls them IF-M 1.0 and IF-TNCCS 2.0
- IETF calls them PA-TNC and PB-TNC
- Cisco Engineer Will Co-Edit

Expected to reach RFC status in 2009

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What About Open Source?

Lots of open source support for TNC

- University of Applied Arts and Sciences in Hannover, Germany (FHH)

  http://tnc.inform.fh-hannover.de

- libtnc

  https://sourceforge.net/projects/libtnc

- OpenSEA 802.1X supplicant

  http://www.openseaalliance.org

- FreeRADIUS

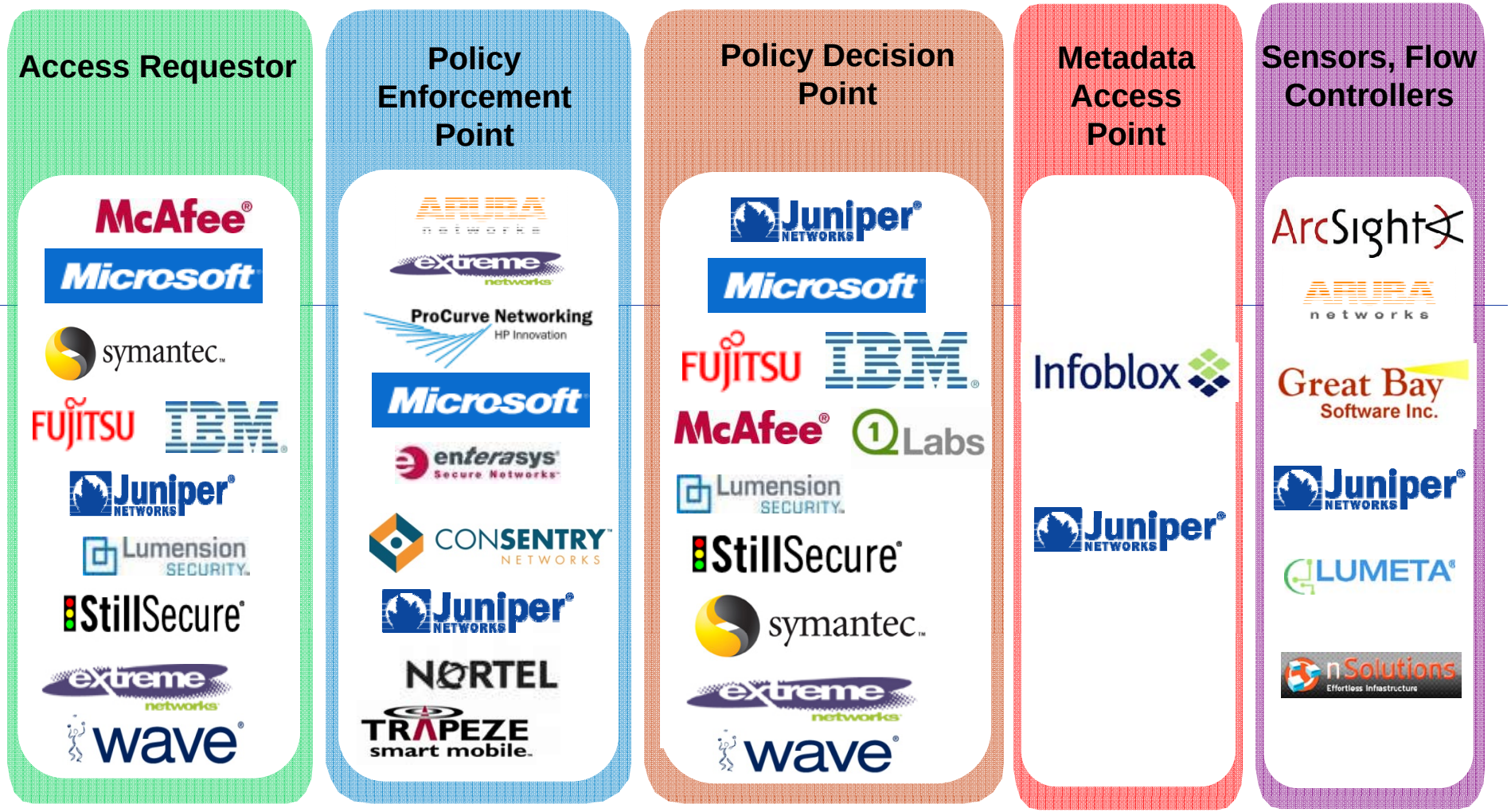
  http://www.freeradius.org

TCG support for these efforts

- Liaison Memberships
- Open source licensing of TNC header files

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TNC Architecture - Support



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IF-MAP Benefits - Great Bay Software

Unified control plane for authentication, provisioning, and response

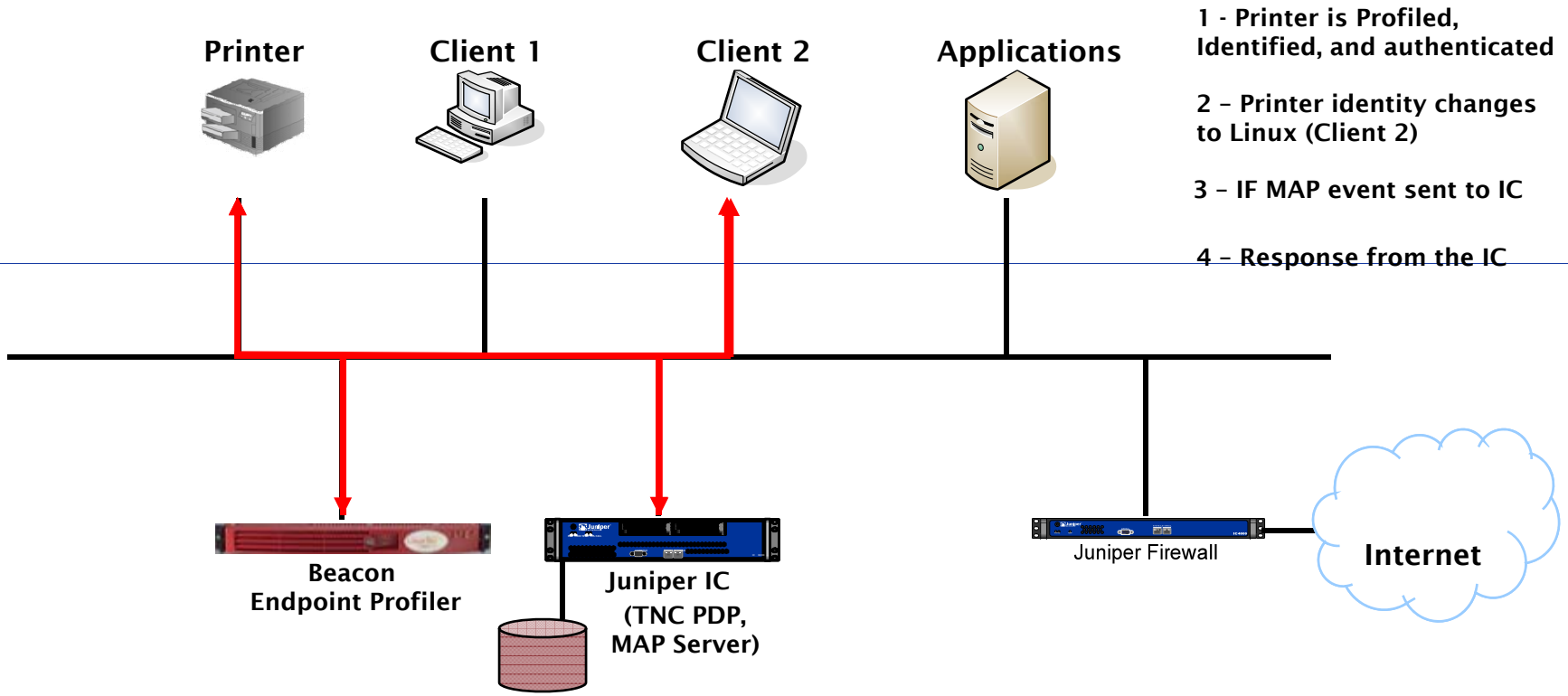
Maintains single entity for network port provisioning and authentication

Provides a platform for publishing and consuming complimentary data

Reduces the cost of supporting multiple partnerships

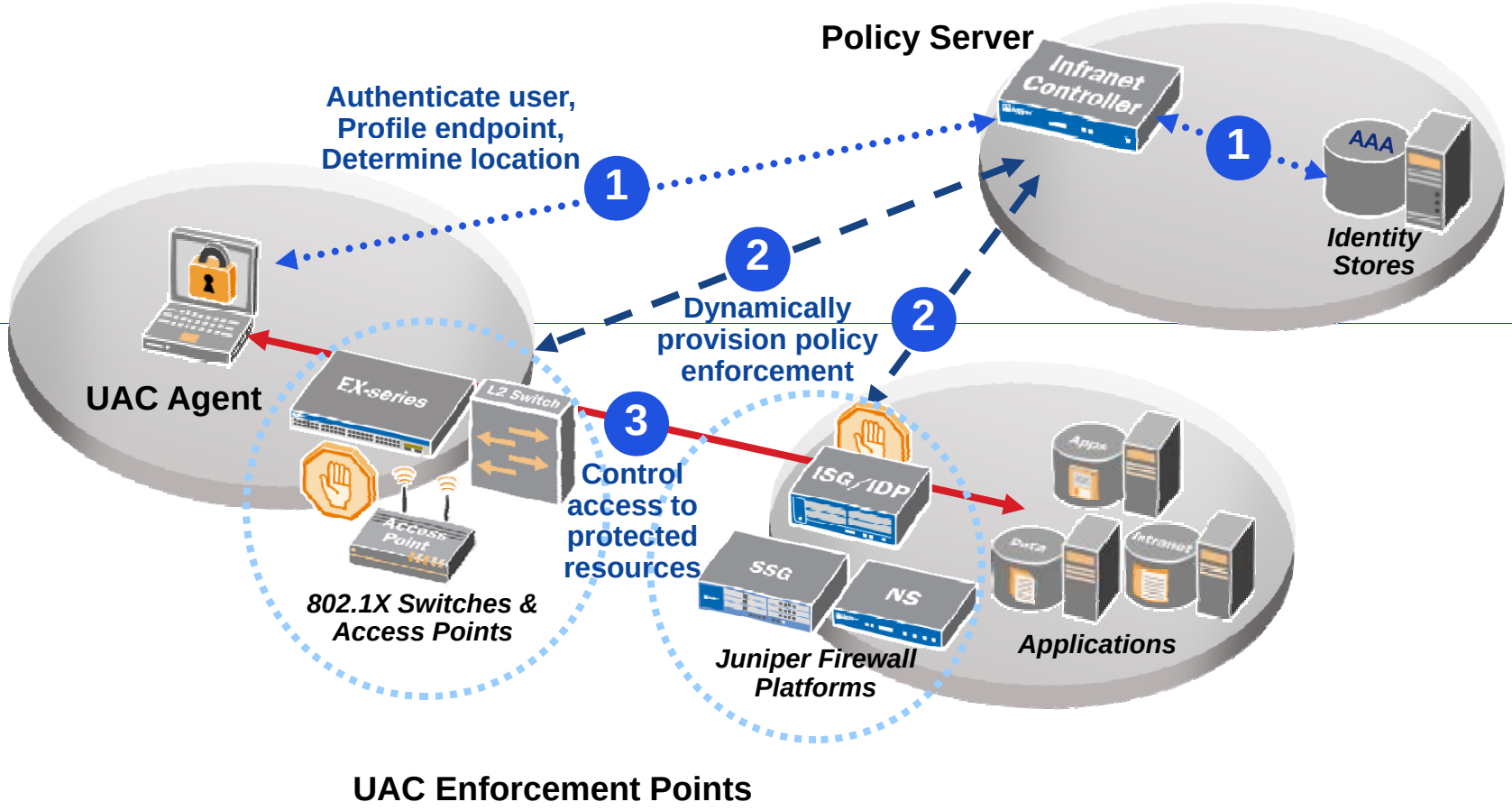
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Identity / Behavior Change



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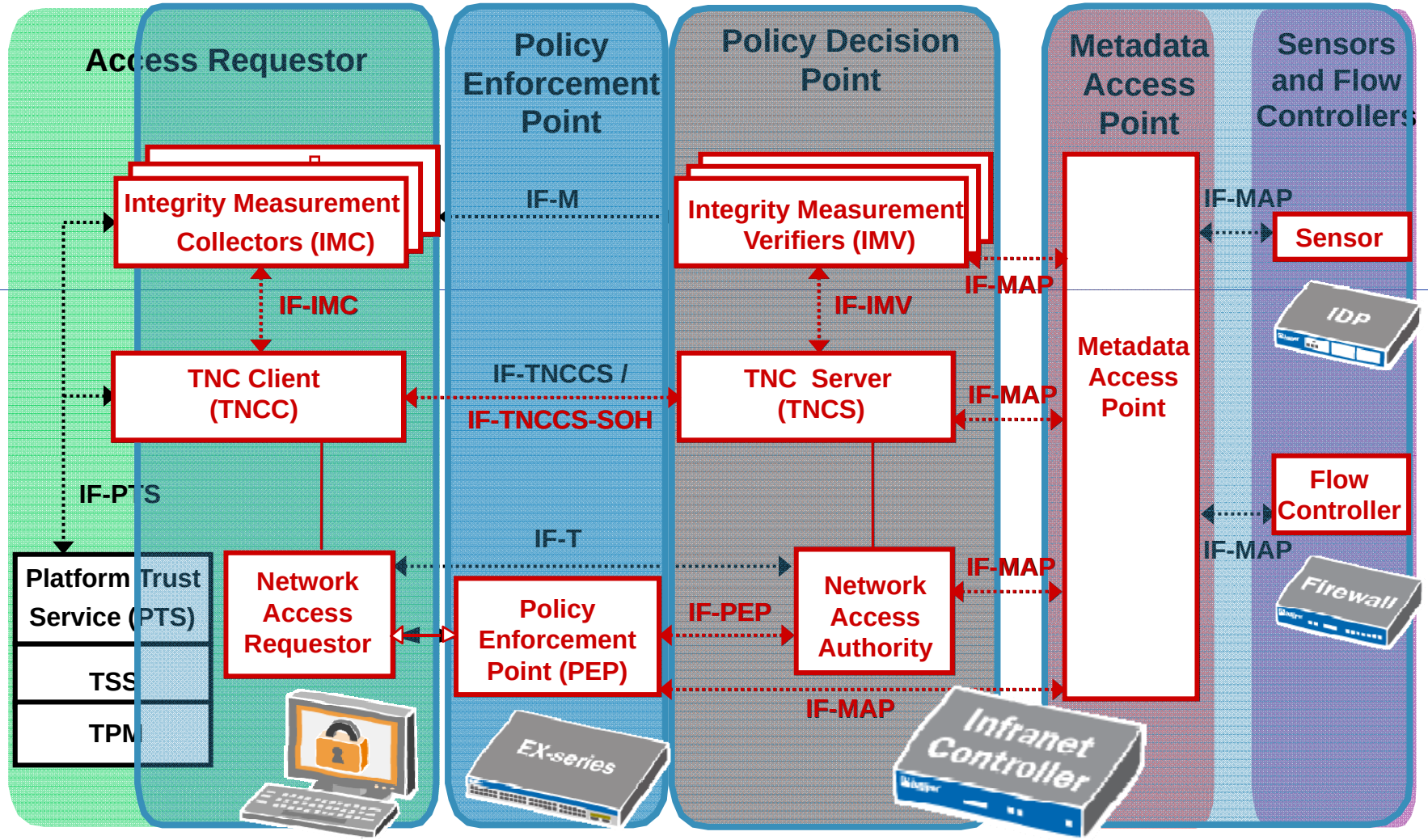
Juniper Networks Unified Access Control



Comprehensive, vendor-agnostic, standards-based access control across heterogeneous environments delivering investment protection

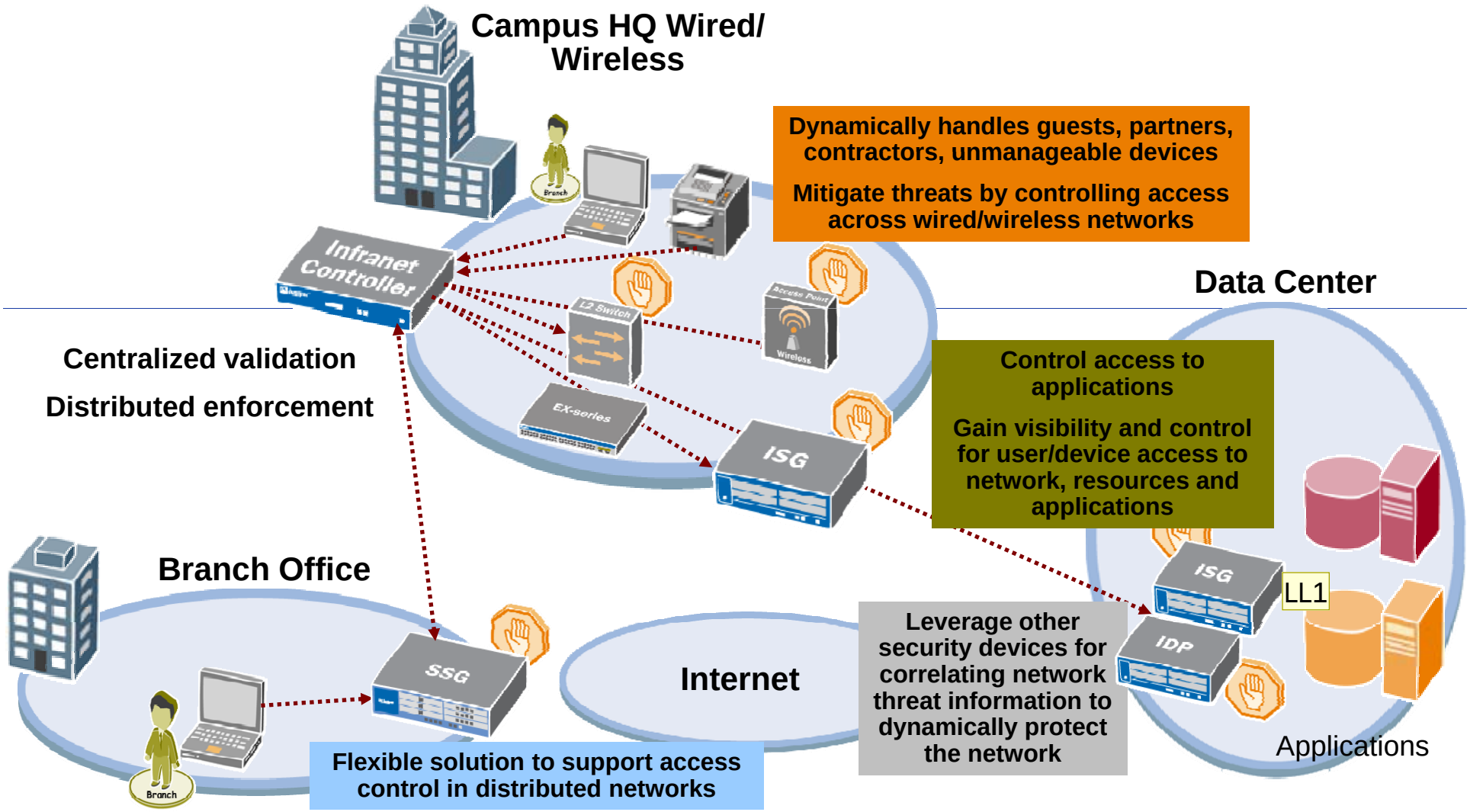
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TNC Architecture and UAC



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Flexible, Standards-based Access Control



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Slide 16

LL1 Lisa Lorenzin, 4/13/2009

What Does TNC Offer Me?

Interoperability - work with what you already have

- Vendor-agnostic, multi-vendor support for diverse, heterogeneous networking environments

Reliability - use best-of-breed

- Eliminates vendor lock-in; increases ROI
- Minimizes disruption of business practices

Flexibility - tackle the low-hanging fruit first

- Reduces complexity, cost, deployment time
- Accommodates project scope in phases

Transparency, communication, auto-remediation

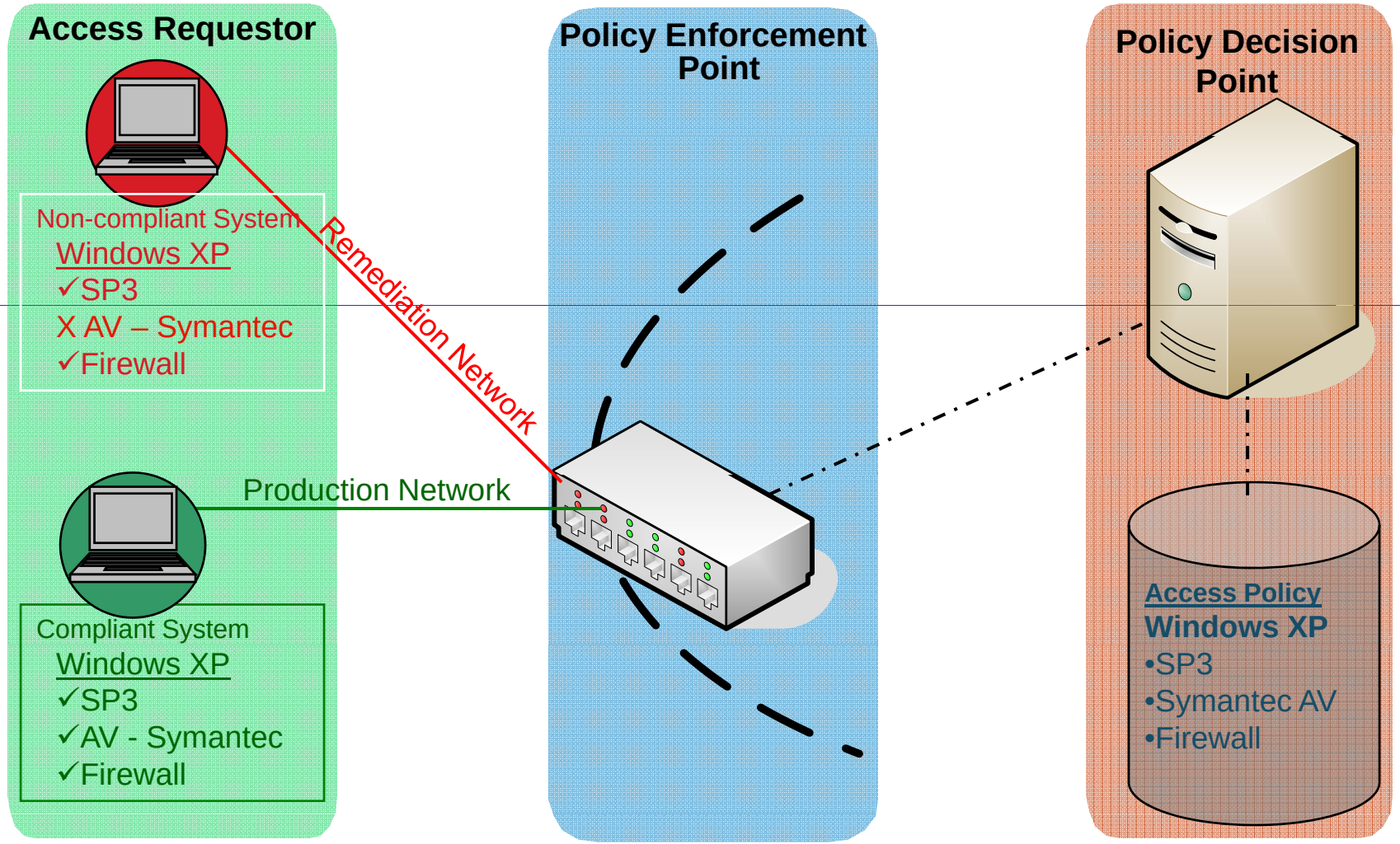
- Lower support cost, higher user acceptance

Meet future as well as present needs

- Thorough and open technical review of standards
- Prepares for whatever the future brings

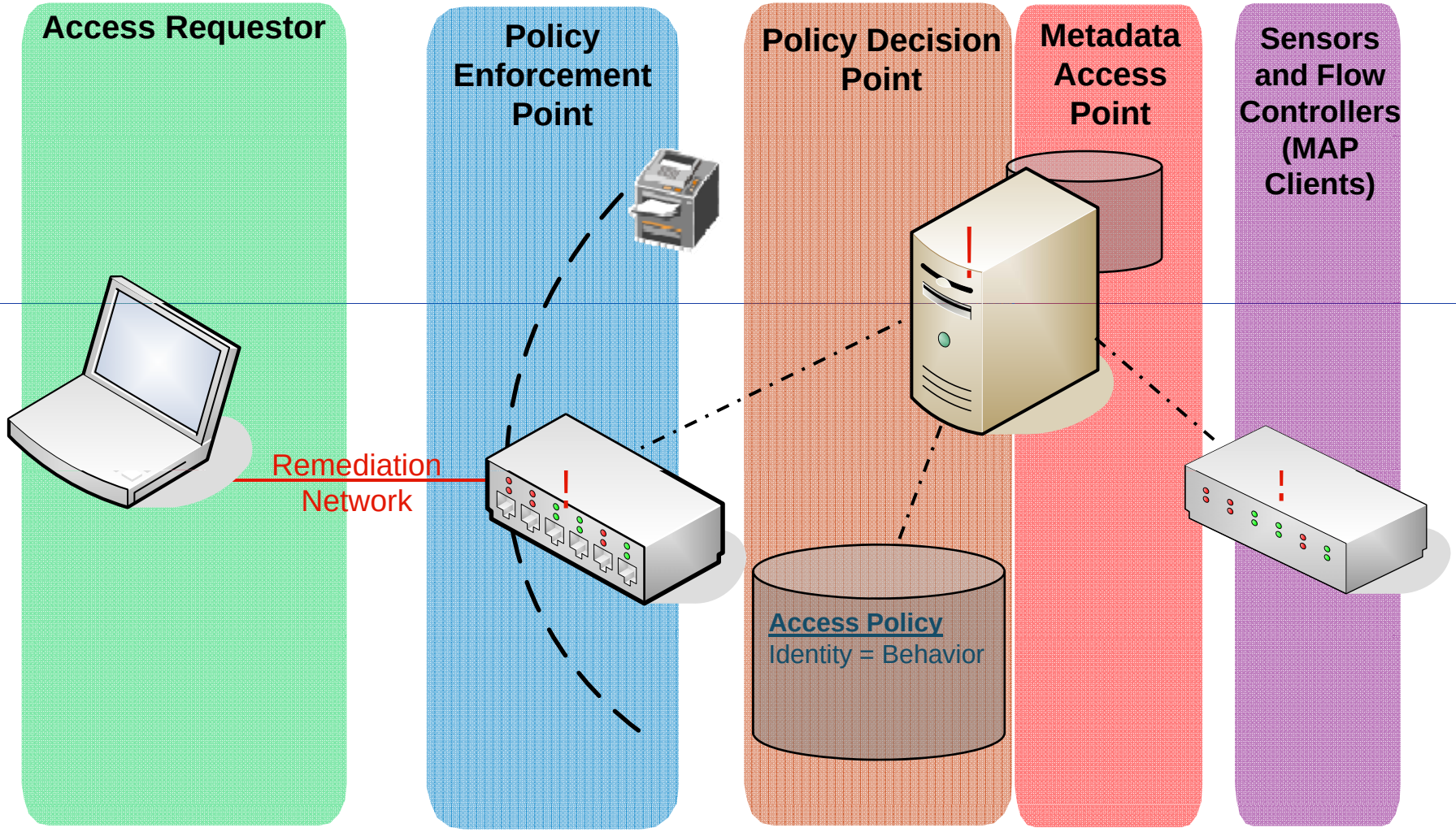
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Health Check



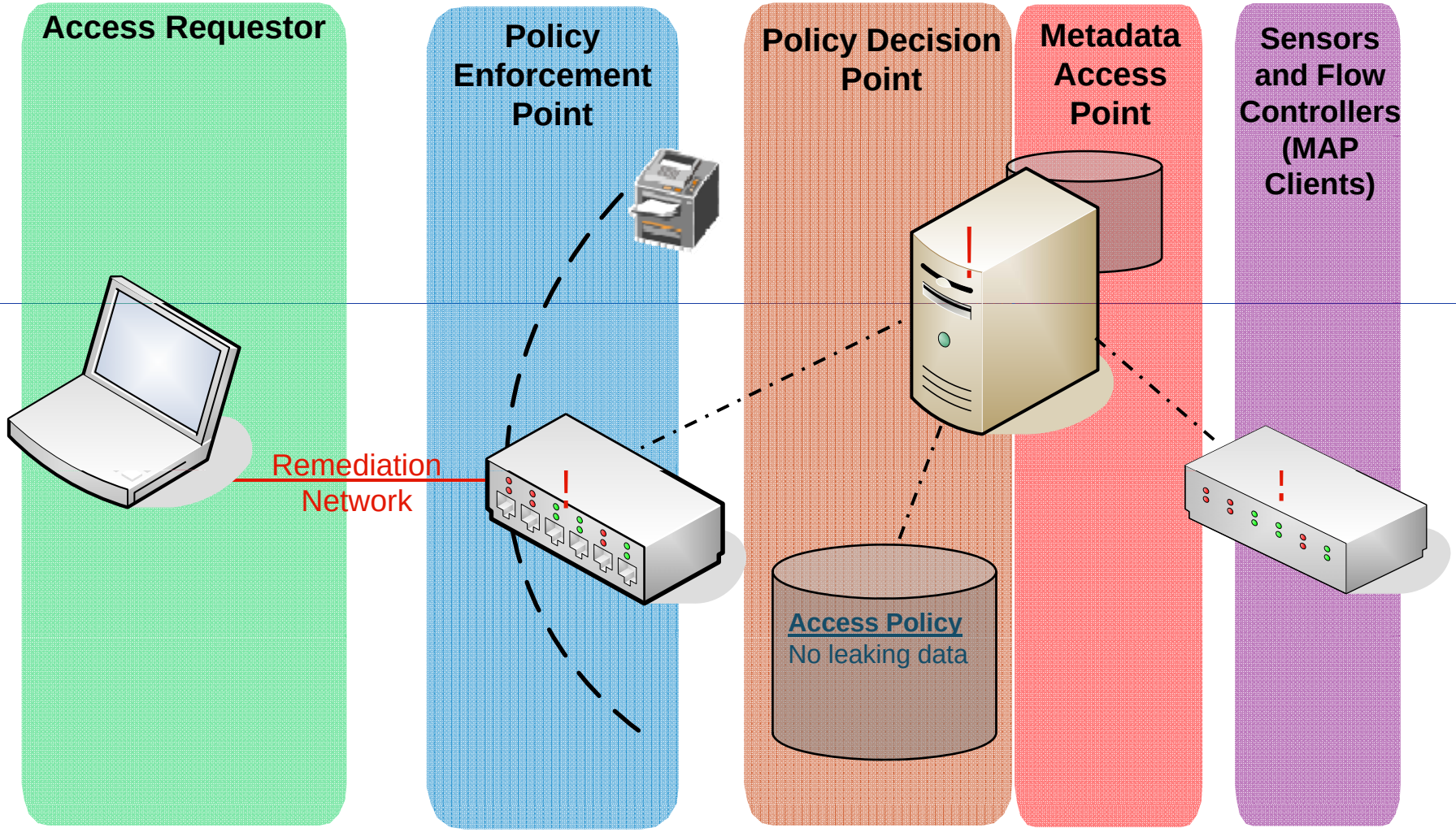
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Behavior Check



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Behavior Check



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