# Brought Our Own Enterprise

## Lessons Integrating the IACD Framework

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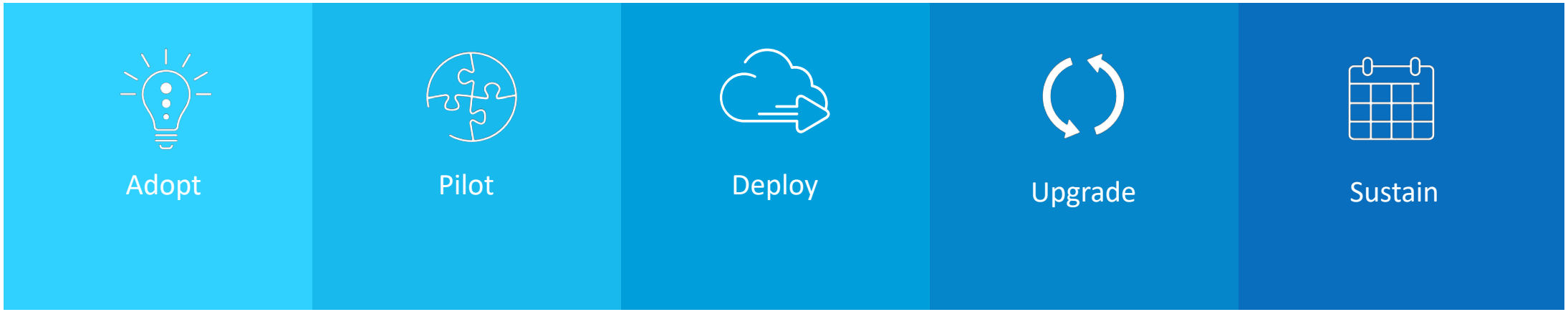
# IACD Readiness Framework







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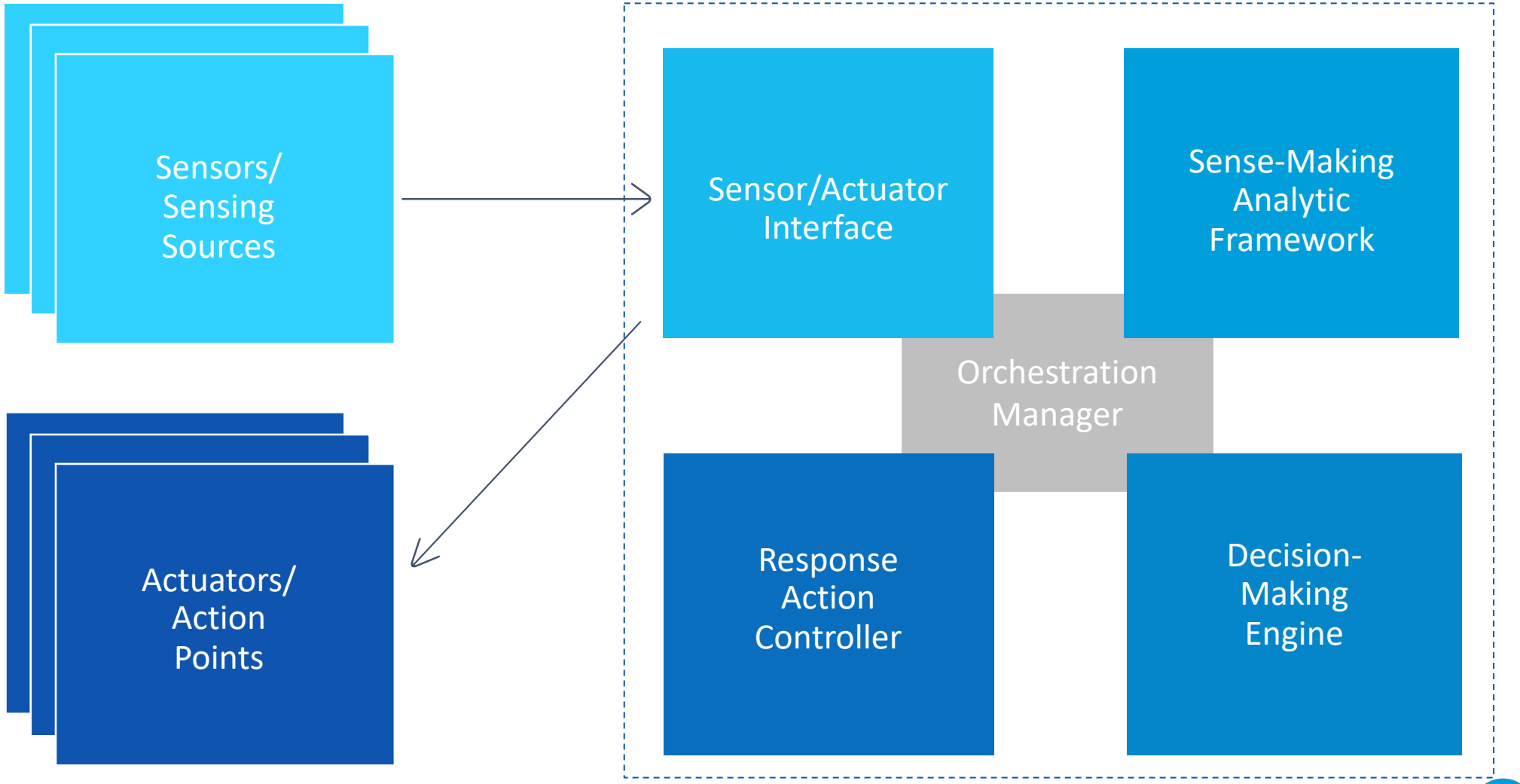
# IACD Baseline Architecture







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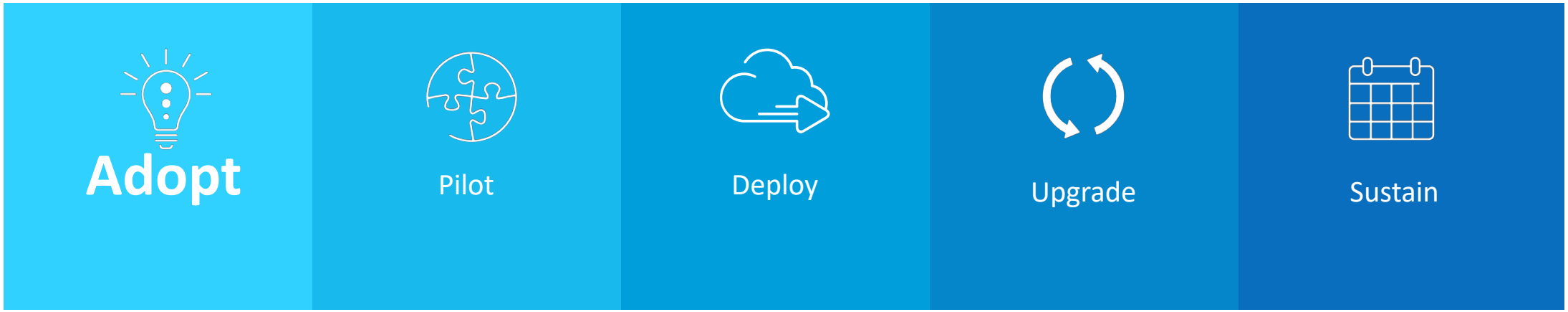
# IACD Readiness Framework







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# Adoption

- Leadership Buy-in
  - Executive
  - Organizational
- Identify Candidate Business Cases
- Identify Adoption Strategy/Key Partners
  - Actuator Owners/Policy Management
  - Threat Analytics
    - Cyber Threat Information (CTI)
    - SOC/Incident Response
  - Operations Liaison




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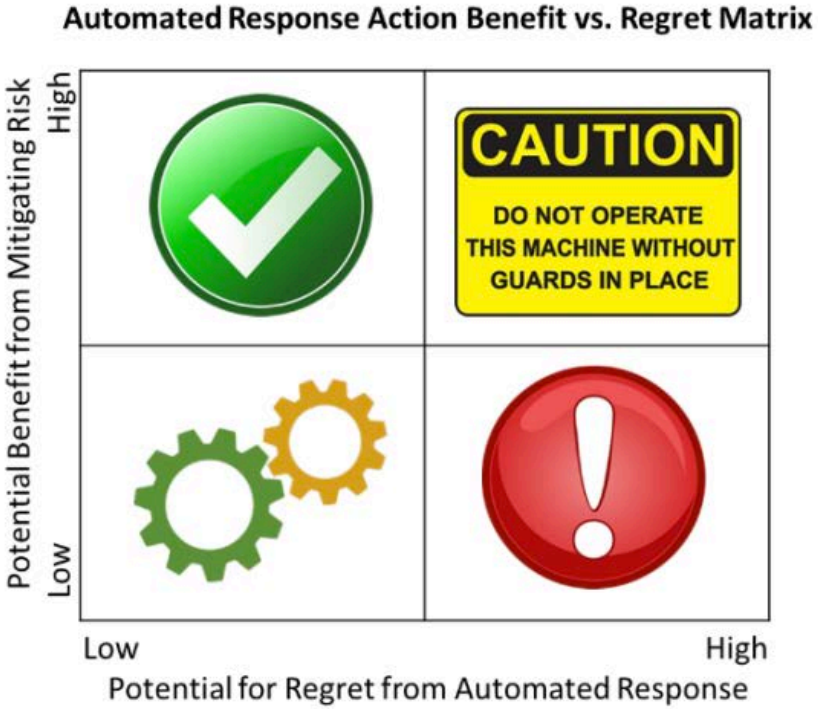
# Candidate Business Case

- Low Regret/High Benefit
- Align with existing capabilities
- Utilize cross-organizational roles/expertise
- Malicious IP Address Blocking
  - Indicators of Compromise (IOC) from CTI
  - Multi-Vendor/Virtualized Actuators
  - Considerations for technology-based support/scale
    - Proactive/traditional inline blocking
    - Reactive/observation-based blocking
  - Ingress/Egress




https://www.iacdautomate.org/orchestration

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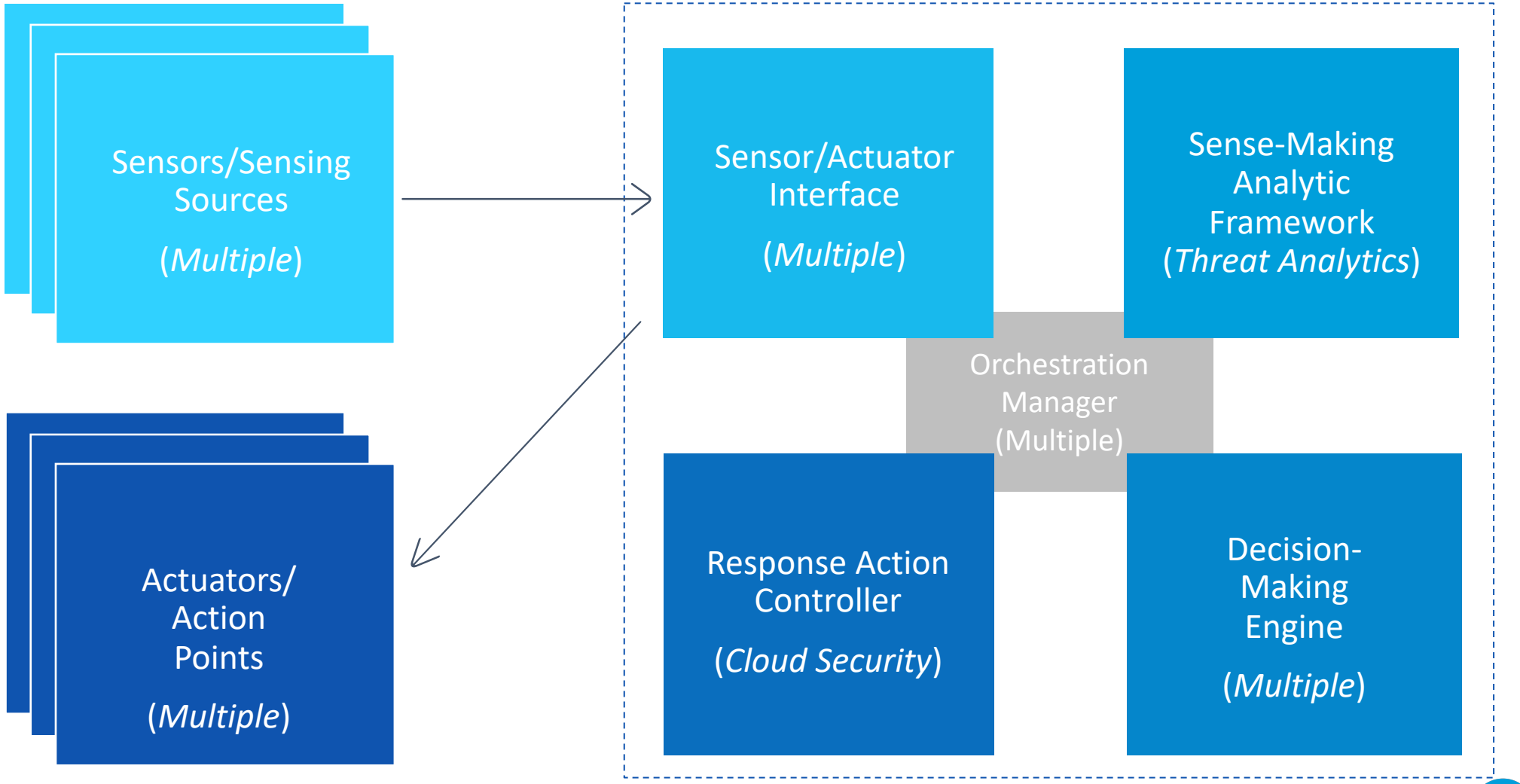
# Functional Ownership







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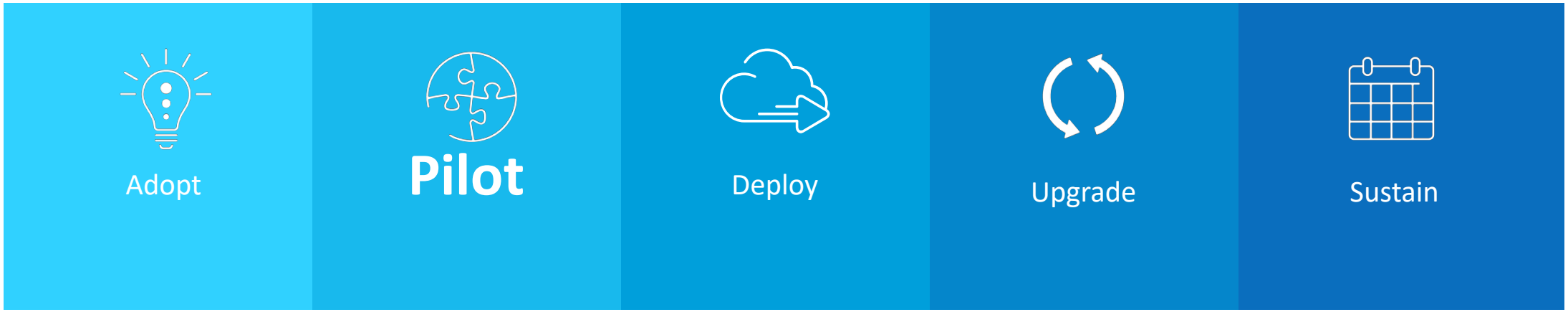





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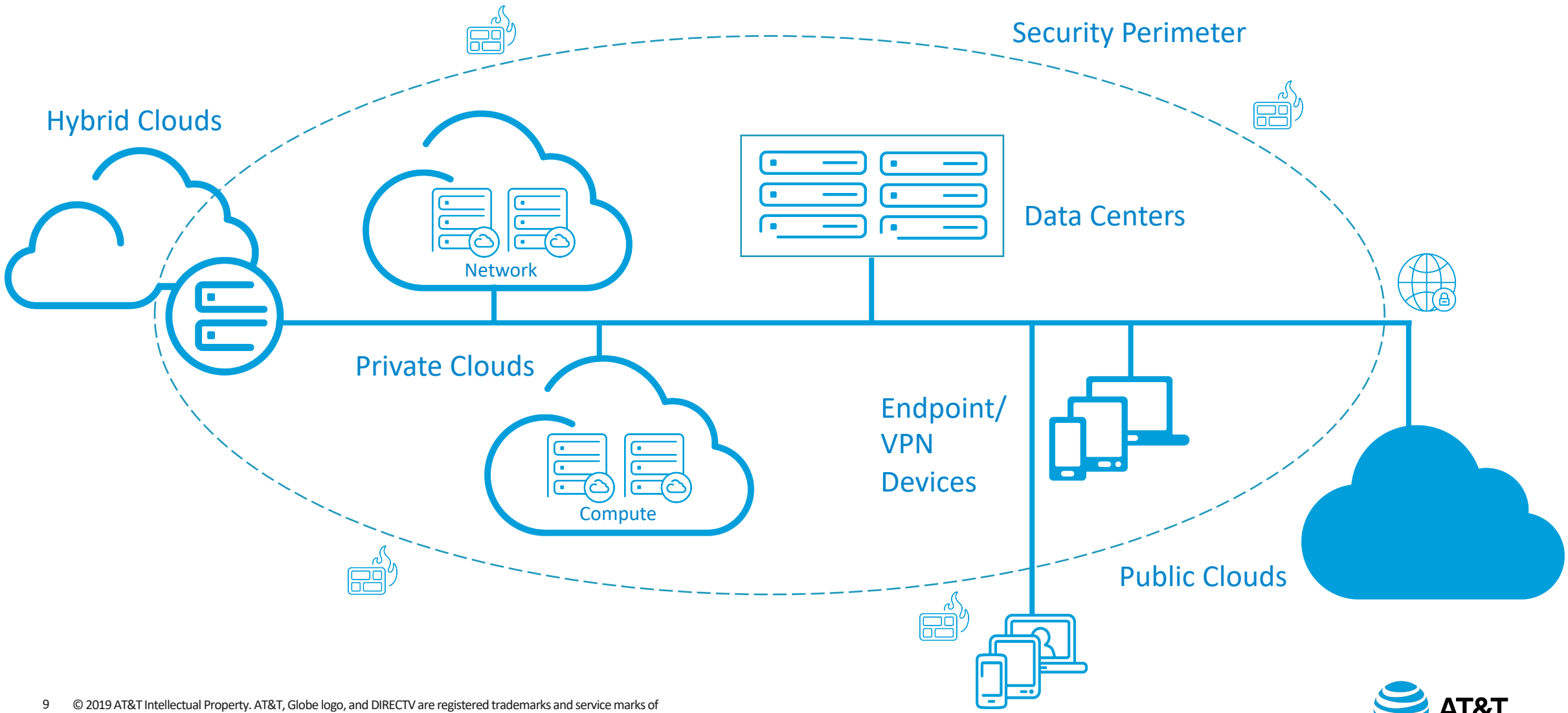
# The New Enterprise







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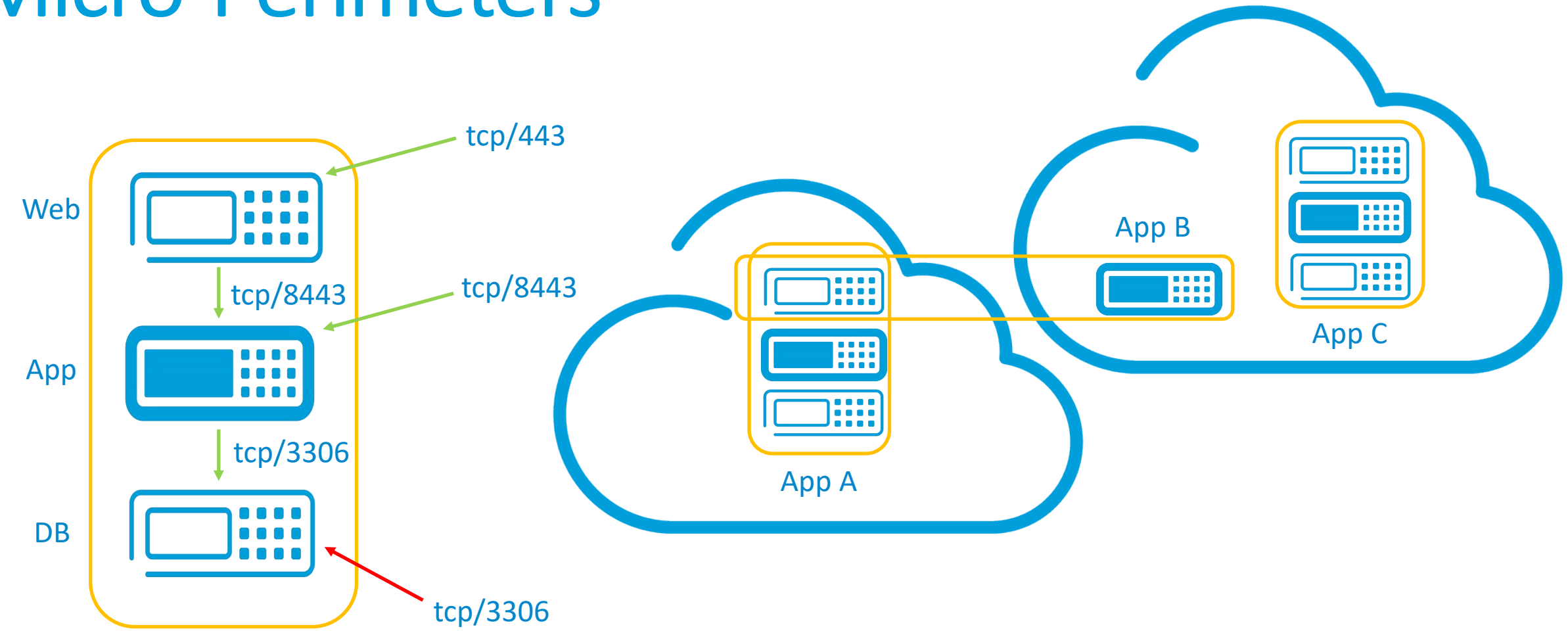
# Micro-Perimeters







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# Platforms and Interface Standards

- SOAR
  - Already evaluated/identified by earlier PoC efforts
  - Decision-Making/CoA Function
- In-House Response Orchestrator
  - Focus on virtualized security technologies
  - Hierarchical security policy engine
- OpenC2 – Open Command and Control
  - Vendor agnostic response action
- STIX 2 – Structured Threat Information eXpression
  - IOC Sightings/Observations




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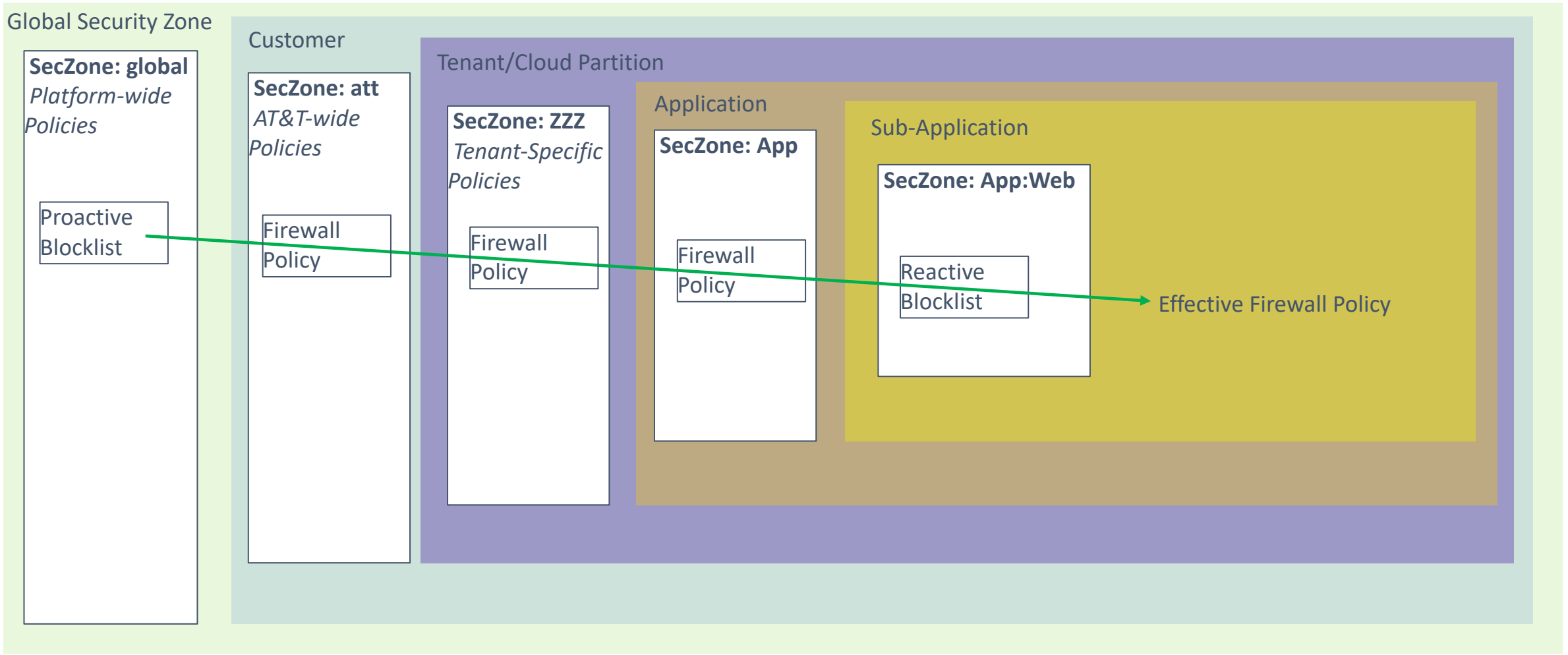
# Policy Hierarchy - Security Zones







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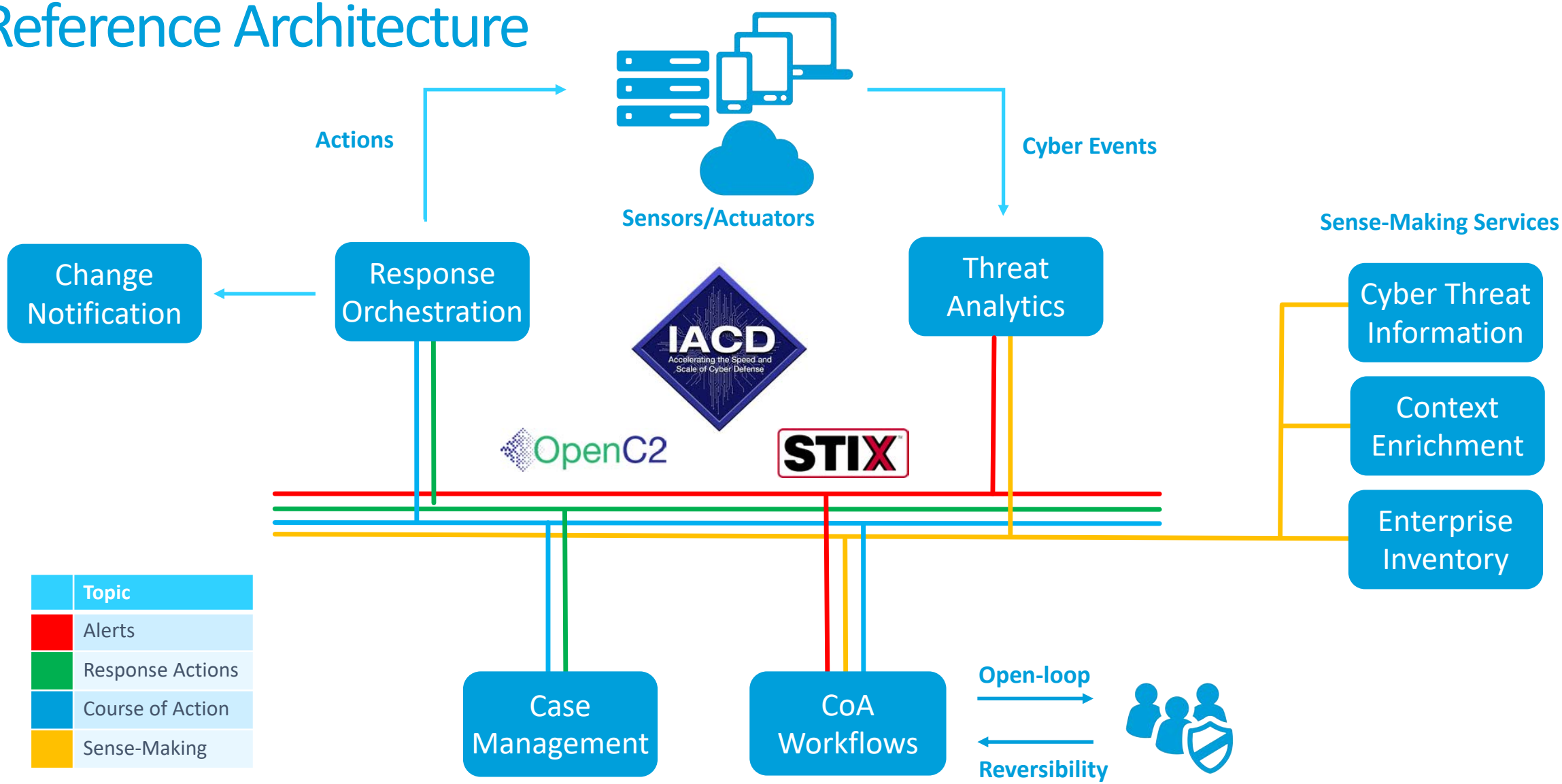
# Reference Architecture







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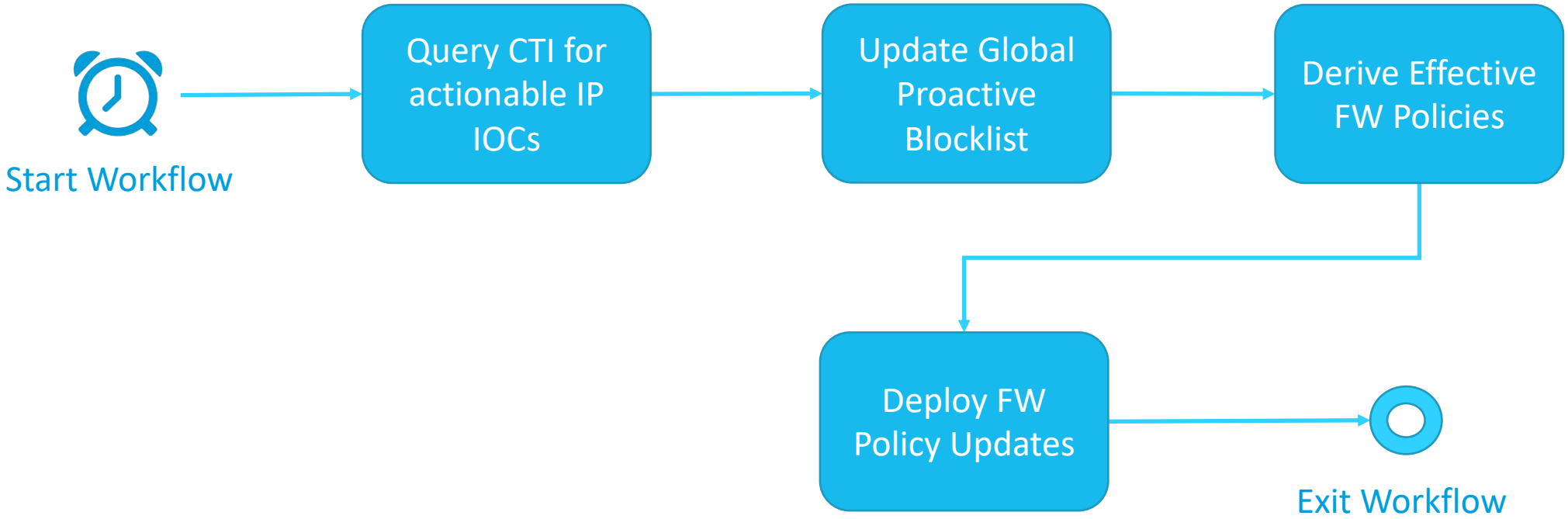
# Workflow – Proactive Blocks







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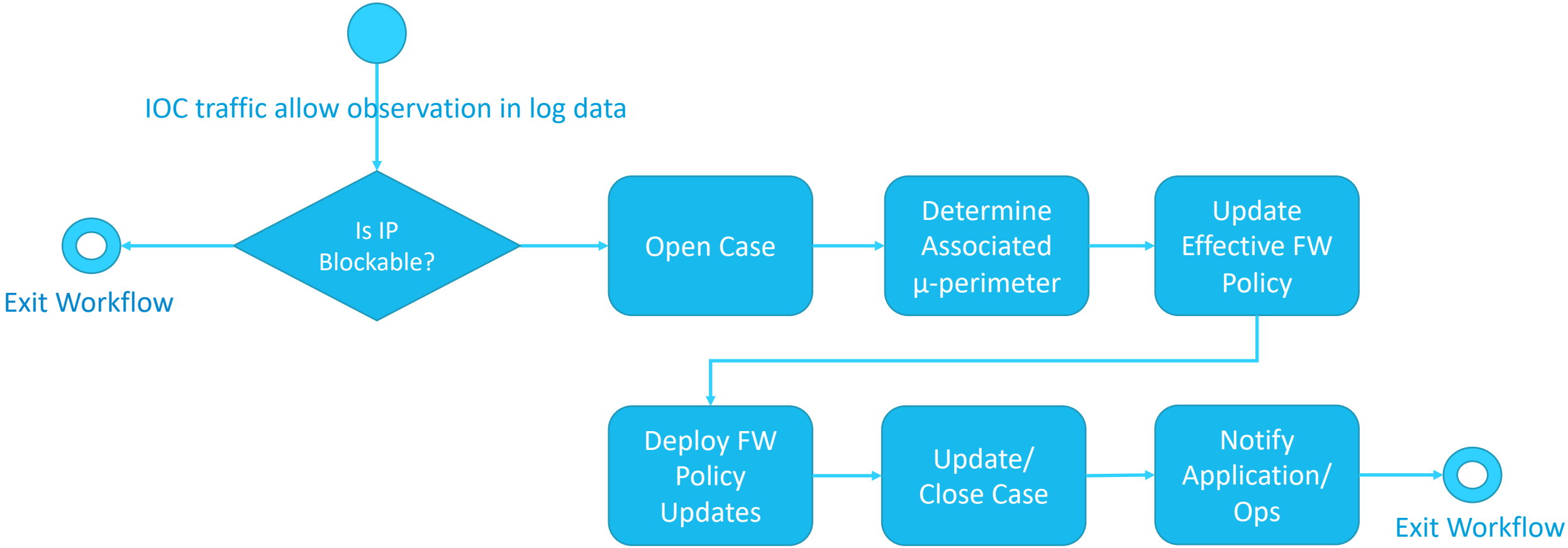
# Workflow – Reactive Blocks







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# Reversibility

- False positives are inevitable
- Exception requests are inevitable
- Autoimmunity – Malicious CTI
- Restrictive CTI queries
  - Require IOC corroboration from multiple sources
- Extended workflows to support removal trigger




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# IACD Readiness Framework





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# Deploy

- Embed in SDLC
- Audit
  - SOC/IR Teams
    - Case Management
  - Operations/Application Owners
    - Change Notifications
- Metrics
  - Number of Security Policy Updates
  - Number of Reverse Workflows Executed
  - Reactive MTTR
  - Allows -> Denies




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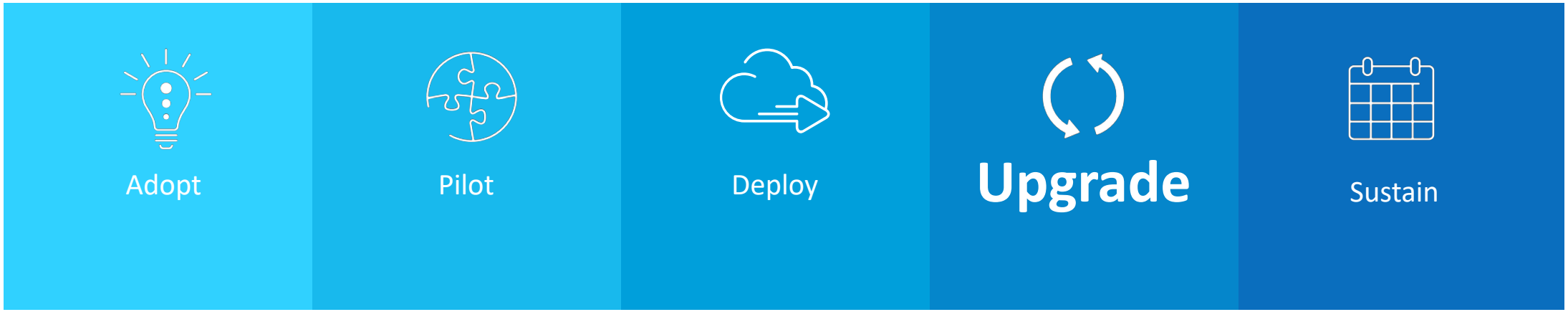





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# Upgrade

- E2E Performance
- Iterative improvements to Business Case
  - Effectiveness
  - Expand coverage
  - ML/AI opportunities
- Additional Use/Business Cases
  - Champion in other environments/business units




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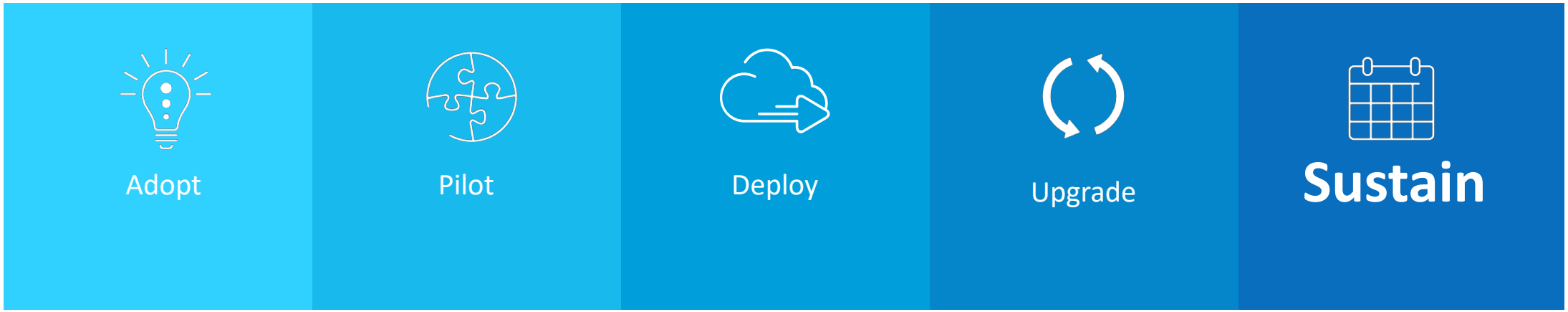





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# Sustain

- Funding/Budget Plans
- Platform Upgrades
- Revisit SOAR Capabilities/Options
- New/Evolved Standards




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