PROTECTING YOUR CRITICAL ASSETS

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Simon Heath
Director, CyberSecurity & IoT

- 30+ years in OT
- 25 years with an Automation OEM
- 7+ years Consultancy Companies & Systems Integrators

- Began my career as a DCS, SCADA, PLC Apprentice Service Engineer back in the late 80's.

  Progressed from Systems Engineering to Project Management roles then to Commercial and Leadership roles with Automation companies, Professional Services companies and System Integrators.

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OT Attack Surfaces

Attack Surfaces Are Growing…

- ✓ Hardware.
- ✓ Software.
- ✓ Removable media.
- ✓ Mobile Apps / tools.

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Threat Trends 2023 and beyond …

Threat Trends …

- ✓ Targeting OT network vulnerabilities.
- ✓ Increasing attack sophistication.
- ✓ Increasing Cyber-Warfare and targeting by nation states.
- ✓ Complacency / Ignorance

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3 Phased Approach

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Cybersecurity Focus

Focus on OT (Operational Technology) Cybersecurity …

- ✓ Industrial control systems (DCS, PLCs, SCADA, ESD, F&G)
- ✓ Building management systems (HVAC, Lighting, Energy)
- ✓ Security systems (CCTV/Surveillance)
- ✓ Fire & safety systems.
- ✓ Transportation systems (Signaling)
- ✓ Telecoms
- ✓ IoT (Wireless Networks/Connected Devices)

Assessment Services

- ✓ Risk, GAP &/or Vulnerability Assessments.
- ✓ Asset Visualization & Inventory.
- ✓ Penetration Testing.
- ✓ Acceptance Testing.

Remediation Services

- ✓ Governance & Compliance.
- ✓ Secure Network Architecture.
- ✓ Network Intrusion Detection System.
- ✓ System Hardening.
- ✓ Secure Remote Access.
- ✓ OT/IT Integration.
- ✓ Security Awareness Programs.

Managed Services

- ✓ Risk Management.
- ✓ Incident Detection/Response.
- ✓ Preventative Maintenance.
- ✓ OT SOC (SaaS).
- ✓ OT Lab.
- ✓ 24/7 Support.

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Assessment Phase

An Assessment should consist of, at a minimum …

- ✓ Identification of OT Assets
- ✓ Vulnerability Assessment
- ✓ Threat Landscape Model
- ✓ Overall Risk Assessment

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3 Phases

Phase 1 Scope & Plan	• Confirm Scope • Plan Project Schedule • Interview Stakeholders
Phase 2 Assess	• OT Security Assessment • Assessment of OT Security Risks • Assessment of OT Security Governance & Procedures
Phase 3 Report	• OT Security Assessment Report • OT Security Risk Assessment Report (incl. Prioritizing of Risks & The recommended Remediation)

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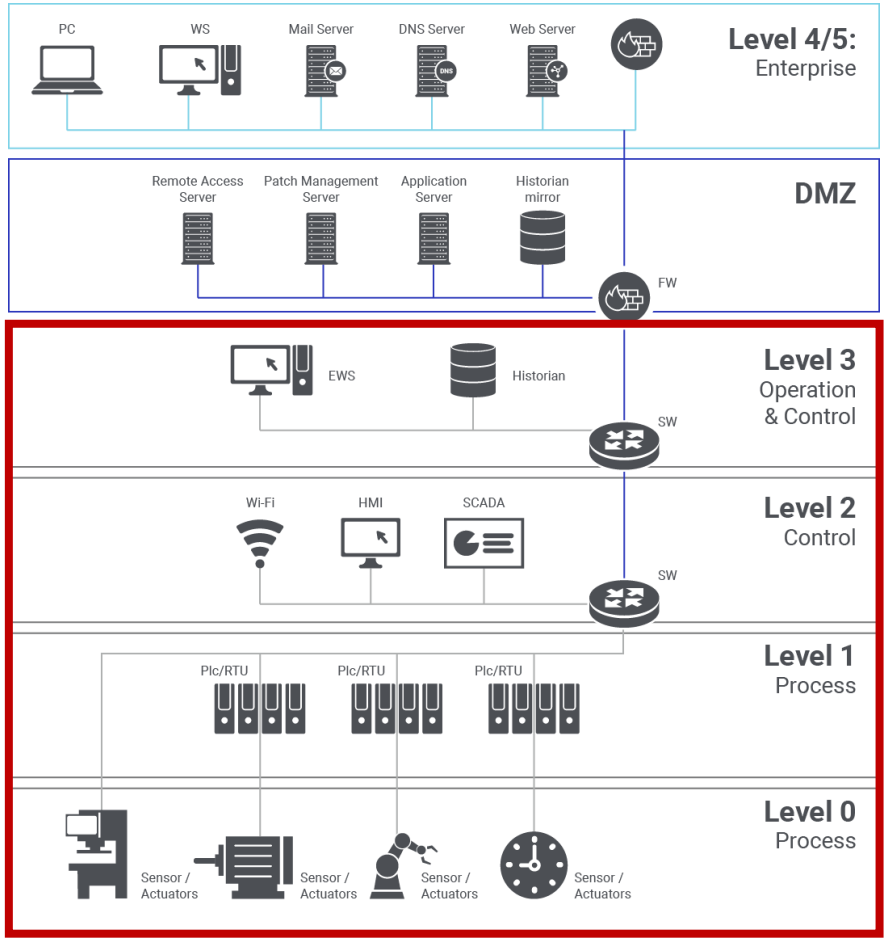
Remediation Phase

5 Key Fundamentals When Protecting OT Systems …

- ✓ Establish a perimeter.
- ✓ Protect exposed interfaces.
- ✓ Separate operational systems from business systems.
- ✓ Minimize use of admin accounts.
- ✓ Log user activity.

Focus On Prevention …

- ✓ Network-based ‘Zero Trust’, micro-segmentation.
- ✓ Continuous monitoring of critical assets.



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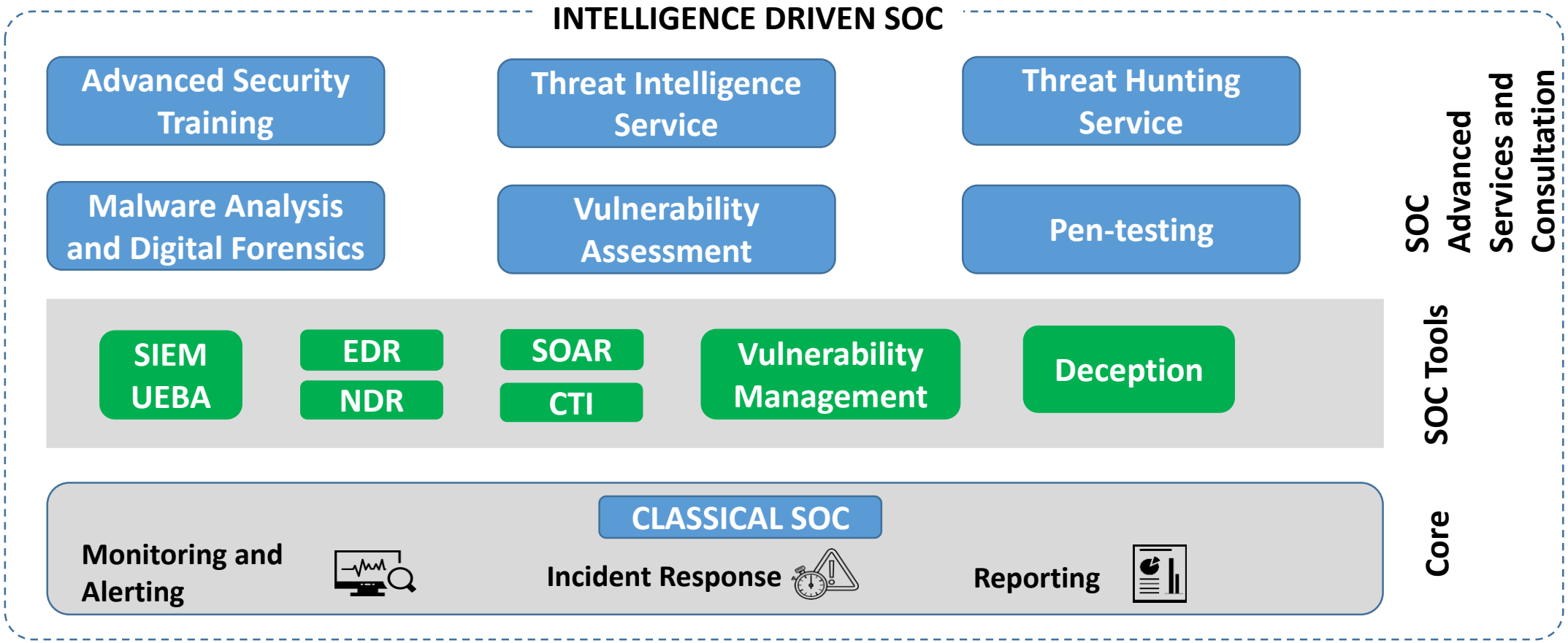
Managed Services Phase



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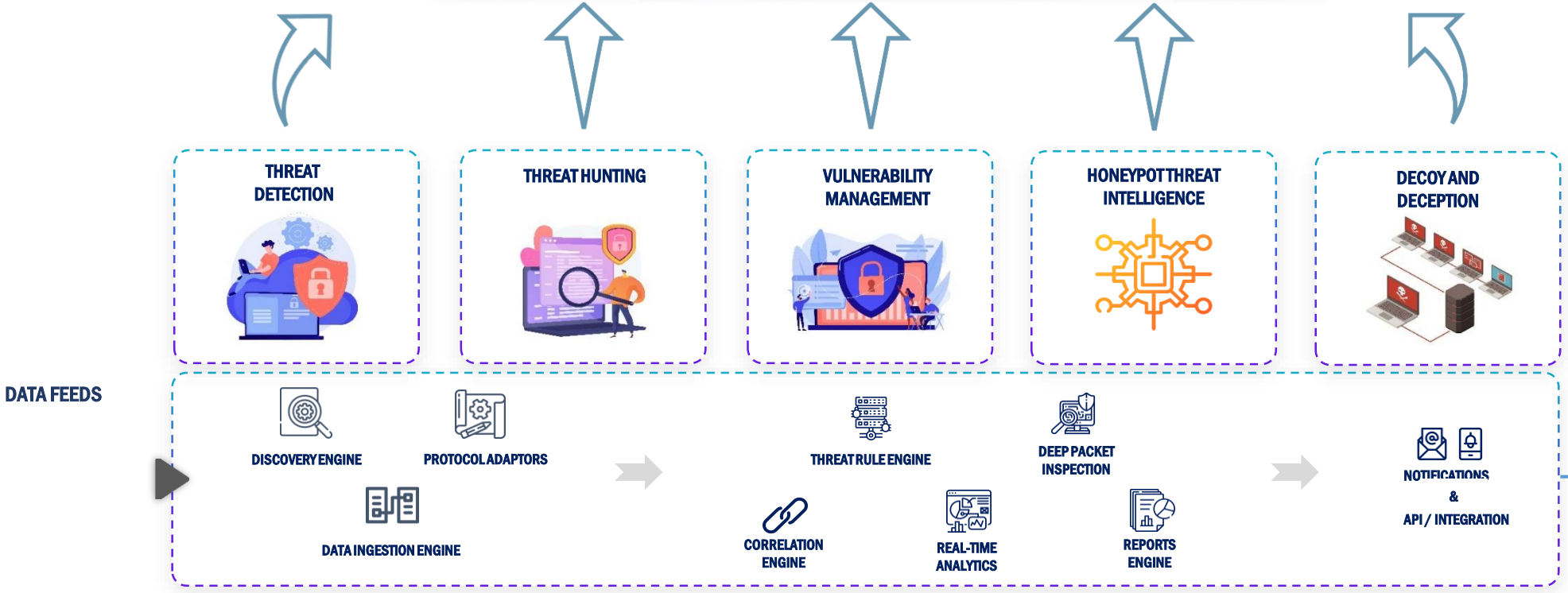
SOC ‘On Prem’ or ‘SaaS’



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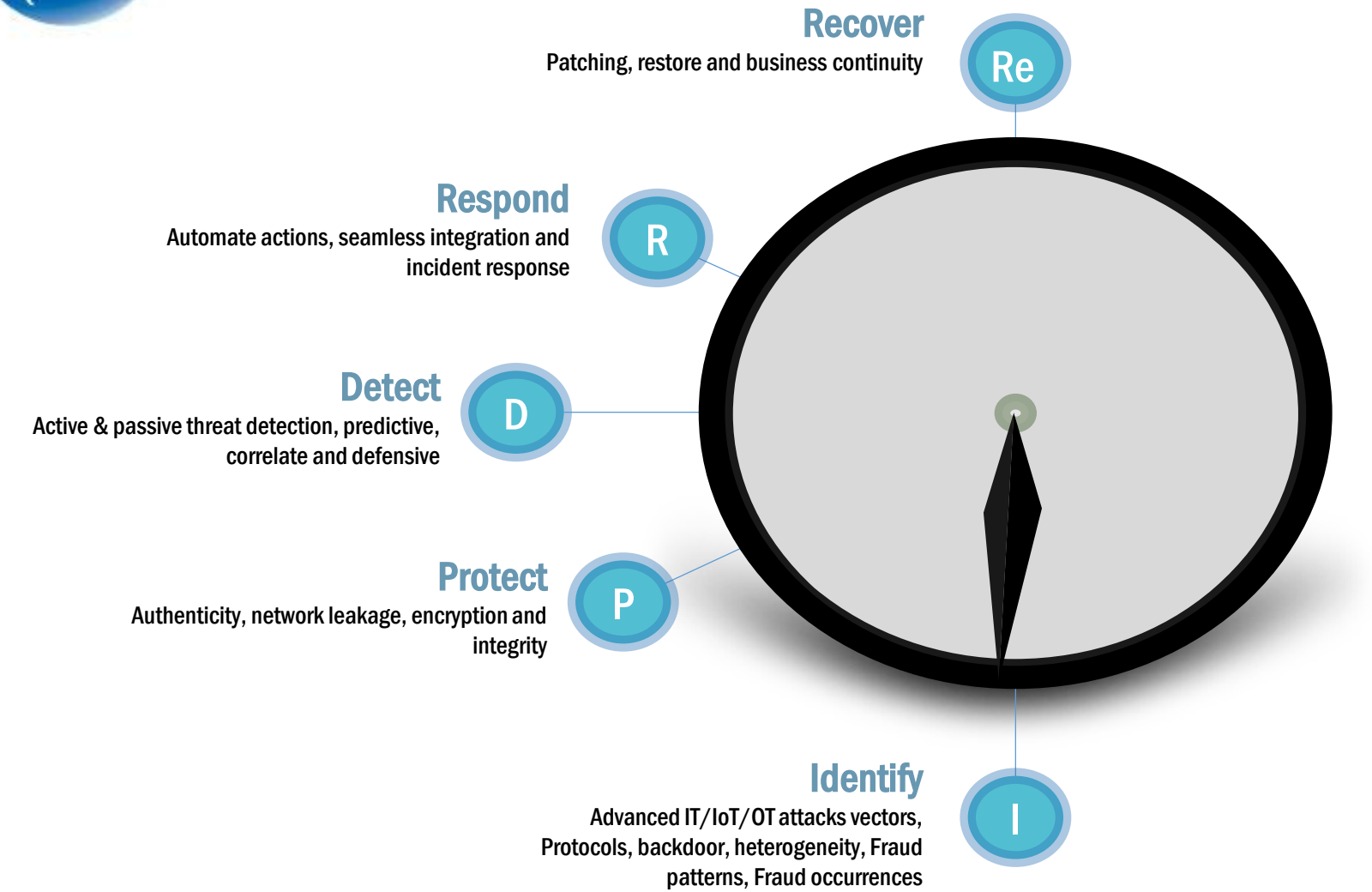
SOC Methodology



CYBER RESILIENCY PROCESS

A world class highly efficient and resilient Security Operations Centre aiming to improve the overall security posture by identifying, preventing, detecting and responding to cyber security incidents and frauds with the aid of both technology and well-defined processes and procedures.

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