

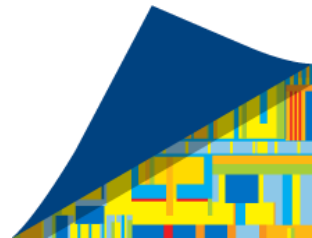


The Data Exchange Layer (DXL)

The Fabric of Security Connected

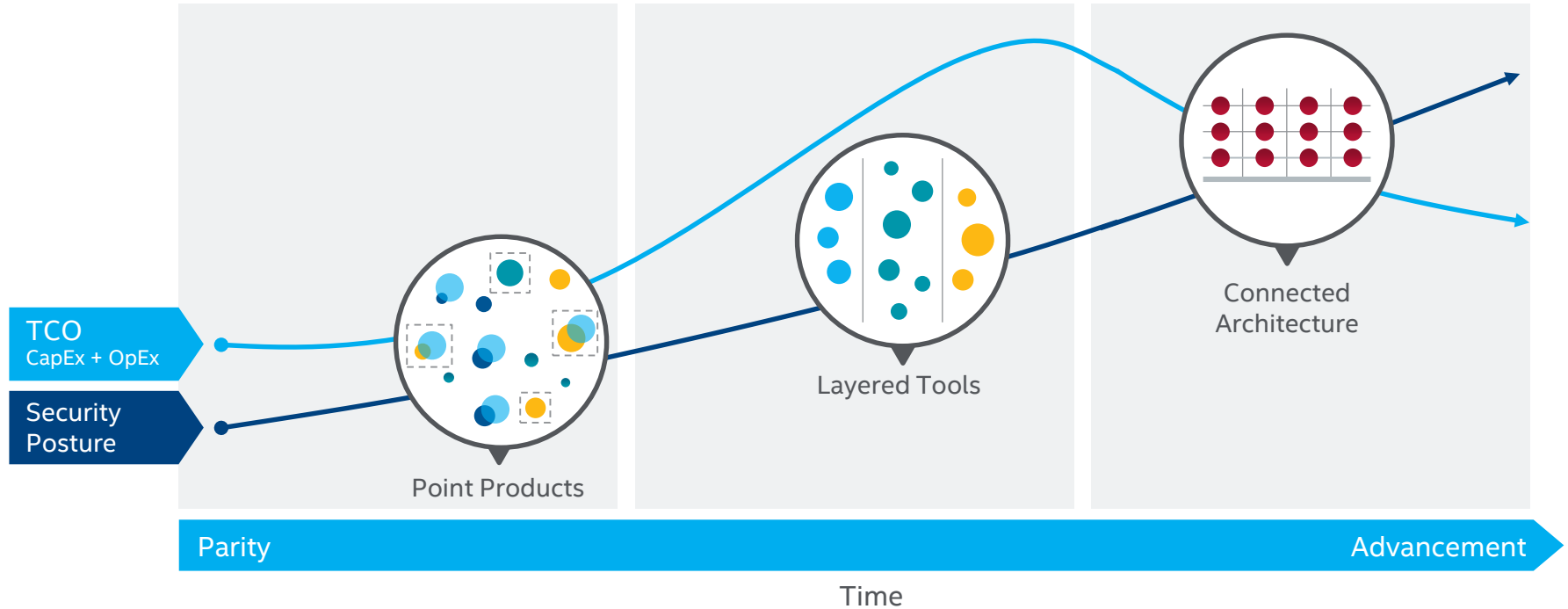
Steve Orrin

Chief Technologist, Intel Federal



Evolution of Security Product Offerings

Delivering Operationally-Effective Security



Intel Security's Data Exchange Layer

Standardize integration and communication to break down operational silos

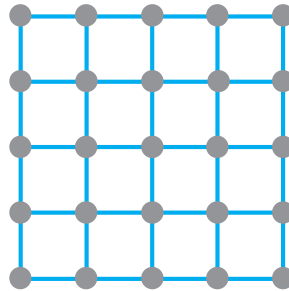
Disjointed API-Based Integrations



Result

- Slow, heavy, and burdensome
- Complex and expensive to maintain
- Limited vendor participation
- Fragmented visibility

Collaborative Fabric-Based Ecosystem (DXL)



Result

- Fast, lightweight, and streamlined
- Simplified and reduced TCO
- Open vendor participation
- Simplicity- one time integration

What is the Data Exchange Layer (DXL)?

Driving efficiency through enhanced communication

Real-Time Messaging



Data Exchange Layer Fabric:

Real-time messaging infrastructure for security products built on message queue telemetry transport (MQTT).

Standardized Content



Common Information Model (CIM):

Provides enterprise security state and context. Includes information about devices, users, location, reputation, and more.

Adaptive Workflows

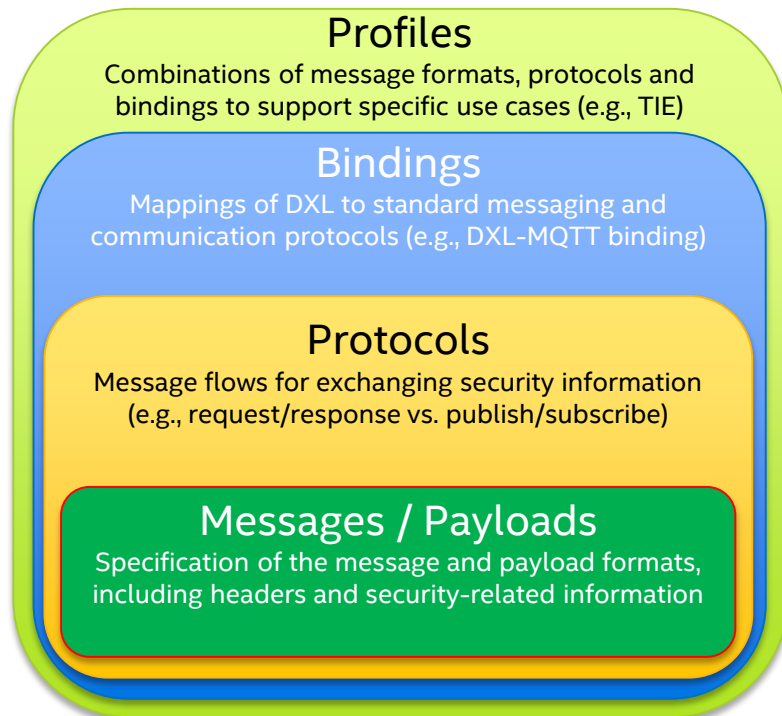


DXL Clients: Security products use the Data Exchange Layer to publish or consume information.



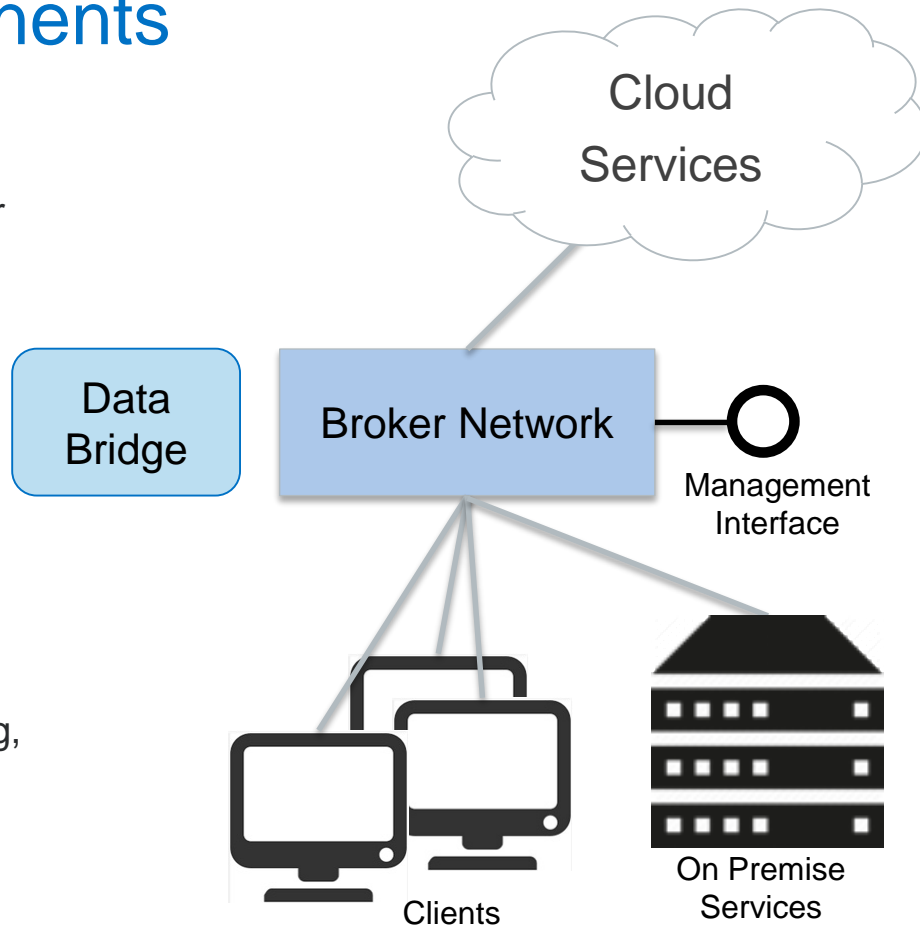
DXL Specification Design

The DXL specification is structured in different layers, similarly to the SAML specification, which are composed in order to tackle specific use cases:



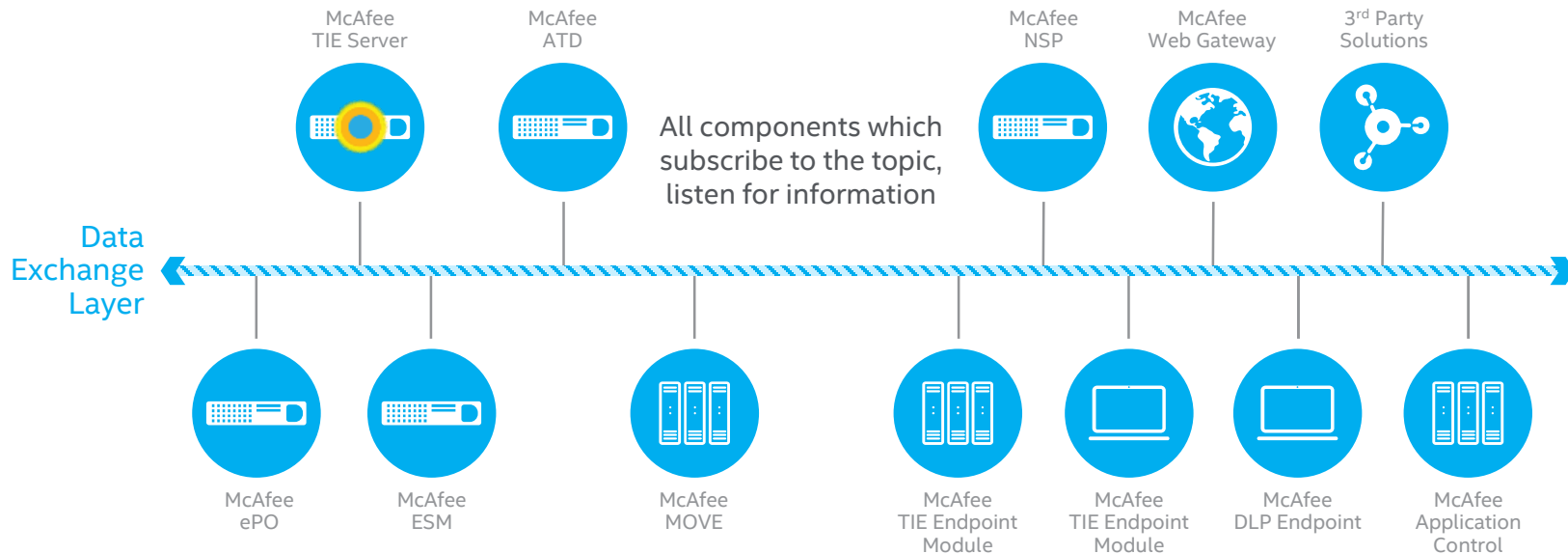
DXL Architecture Components

- **Broker Network**
 - Routes messages to appropriate receiver
- **Clients**
 - Provide access to DXL fabric
- **Services**
 - RESTful-like services available on DXL fabric
- **Management Interfaces**
 - Provides broker, client and service management.
- **Data Bridge**
 - Provides connection to related systems, such as TAXII servers, stream processing, and storage.



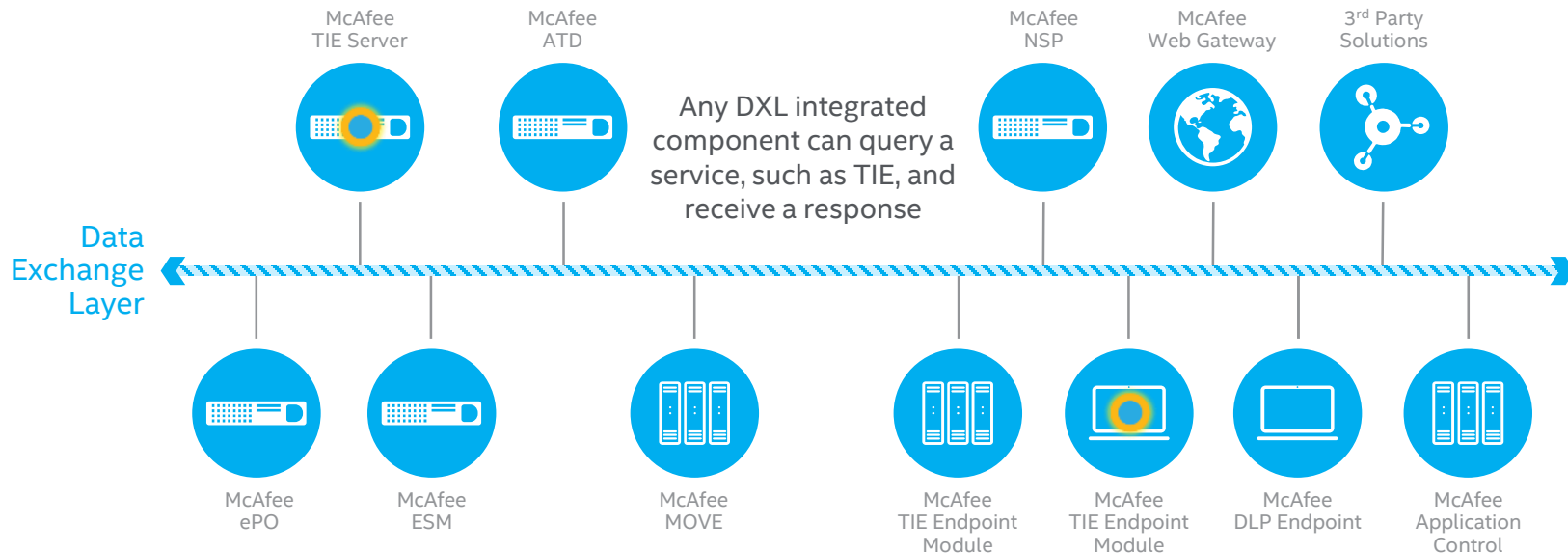
Intel Security Data Exchange Layer (DXL) in action...

Publish/Subscribe Model



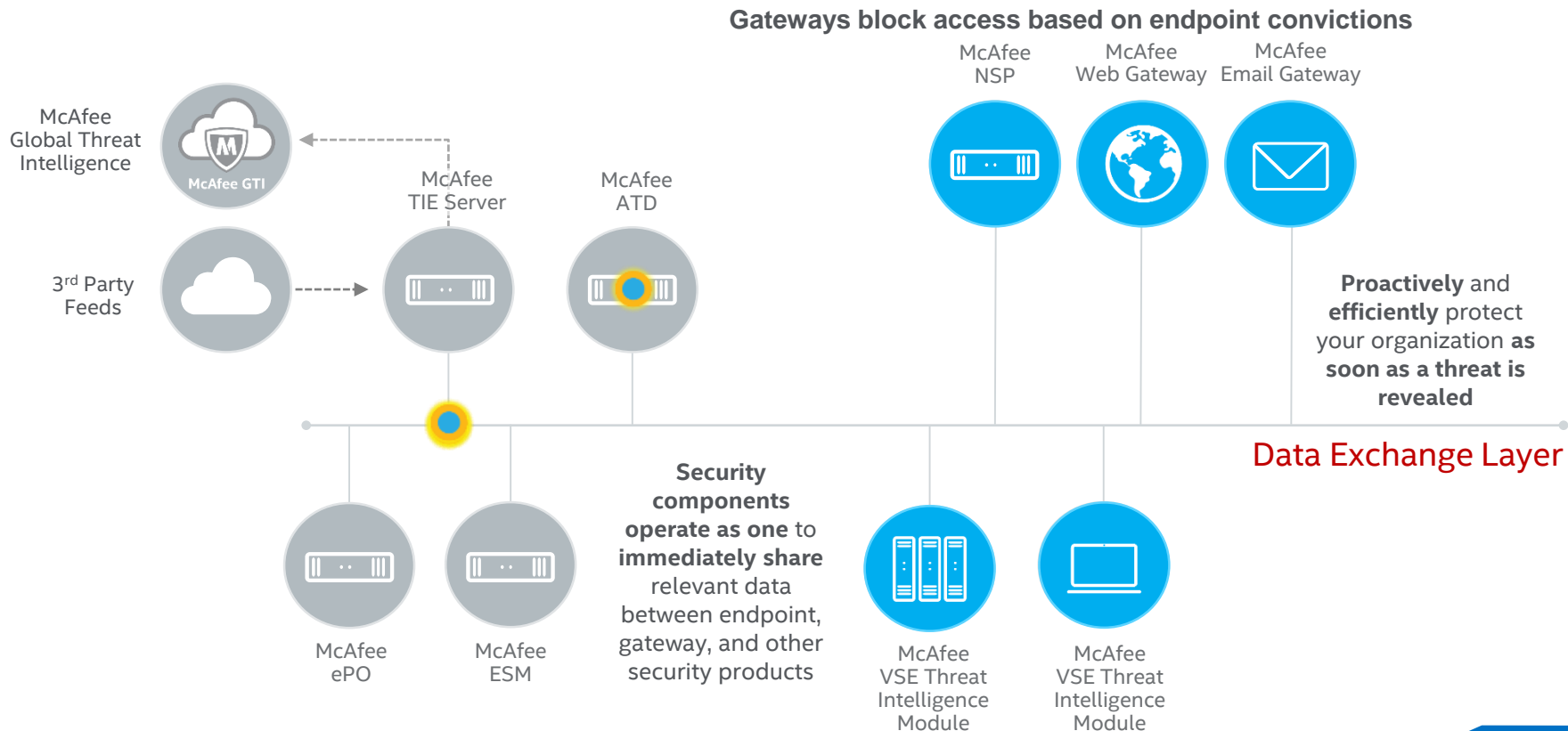
Intel Security Data Exchange Layer (DXL)

1:1 Query/Response Model



Intel Security Threat Intelligence Exchange (TIE)

Real time protection across the enterprise



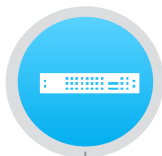
Adaptive Threat Prevention and Detection

Network & Gateway

NIPS

Web Gateway

Email Gateway



network and
endpoints adapt

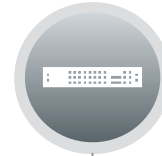
Sandbox



IOC 1
IOC 2
IOC 3
IOC 4

payload is
analyzed

SIEM



new IOC intelligence
pinpoints historic
breaches

DXL Ecosystem

DXL Ecosystem

Endpoints

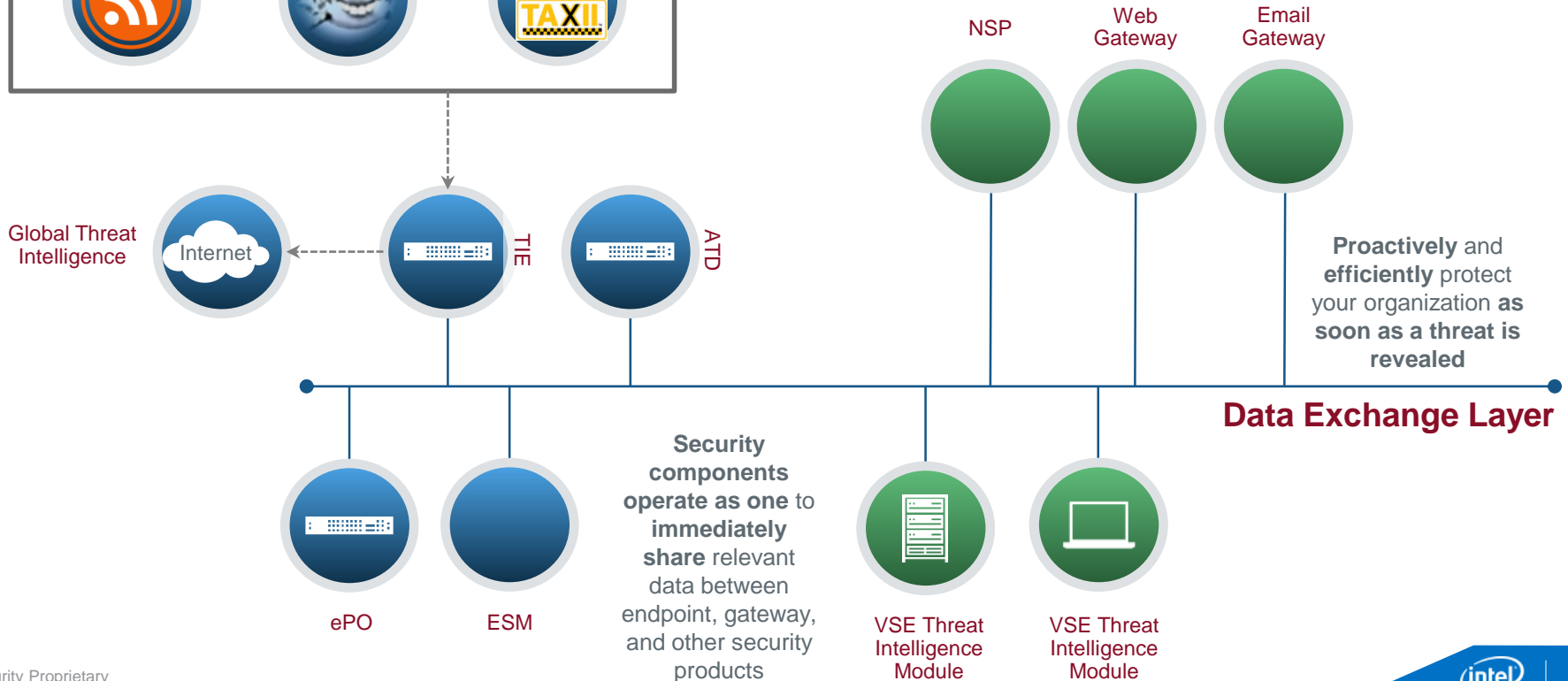


previously breached
systems are isolated
and remediated

DXL + 3rd party feeds



Gateways block access based on endpoint convictions





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