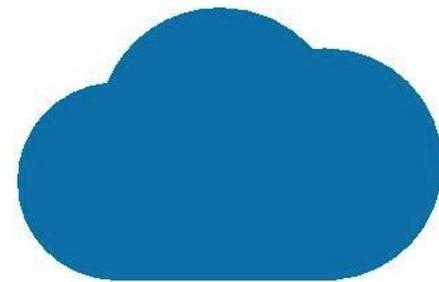
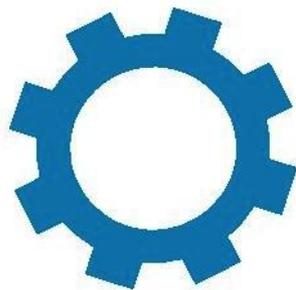
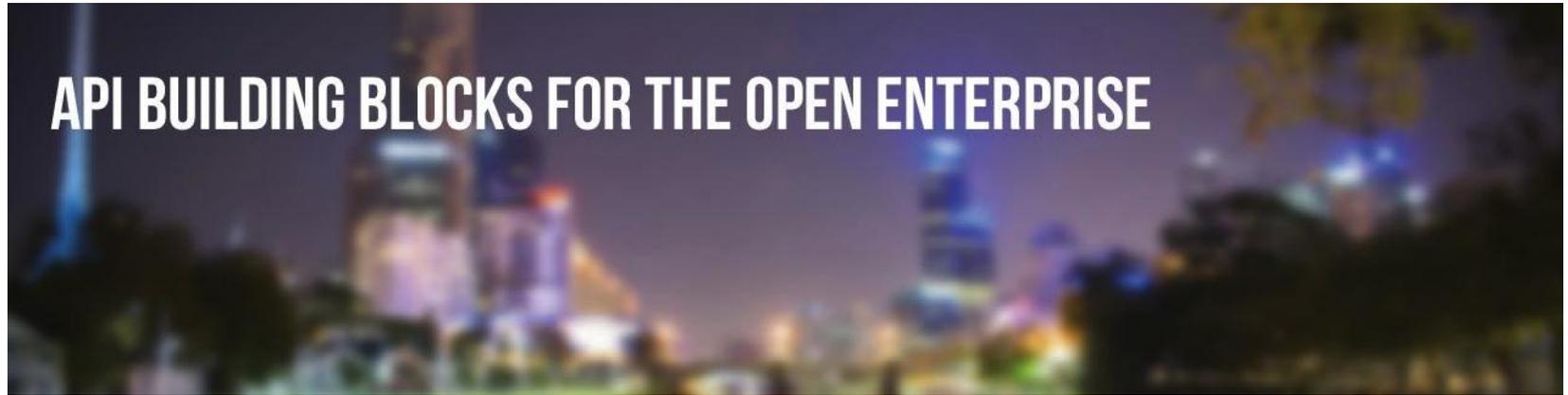


Layer 7 Company and Products Overview



4 Primary API-related Problem Areas

SOA Governance for X-Domain & B2B

Problem Addressed:
Simplify real-time integration across divisions and partners via SOA technology

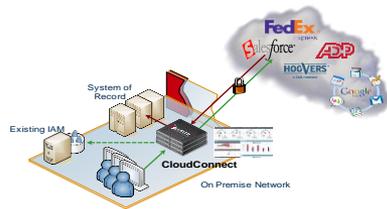


Secure & Govern X-Domain Integrations

- Translate data types
- Route messages across end-points
- Build & orchestrate APIs
- Secure data, APIs
- Enforce access policies
- Provide security & operations integration point

Cloud SSO & Integration

Problem Addressed:
Simplify connectivity to cloud for SaaS & IaaS



Simplify SSO & Integration to Cloud

- SaaS integration
- SaaS SSO
- Hybrid Cloud Enablement
- Cloud Bursting
- Monitor usage of cloud services centrally

Mobile Gateway for Mobile Security & Access

Problem Addressed:
Mobile middleware for helping enterprises make apps available to mobile devices securely



Manage Mobile Apps Security

- Manage user, app, device access
- Translate internal & external identity representations
- Build OAuth & OpenID Connect connections
- Provide data security & app firewalling (websockets etc)
- Proxy Social, Cloud for enterprise
- Certificate provisioning for X-app communication
- Monitor app usage & performance

API Management for Developer Access

Problem Addressed:
Expose internal information assets to outside developer communities via APIs



Open APIs to Developer Communities

- Secure and manage APIs exposed to outside
- Onboard and manage developers
- Monetize and monitor APIs
- Foster different developer communities for internal, partner and public developers
- Make applications more consumable by mobile apps

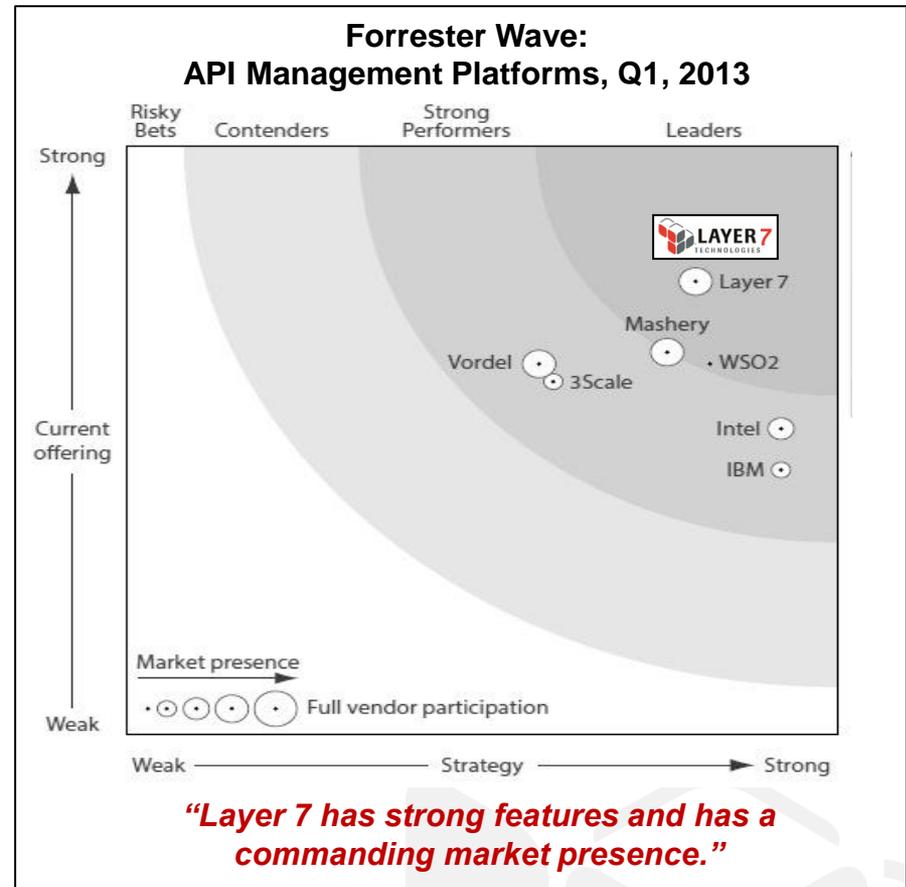
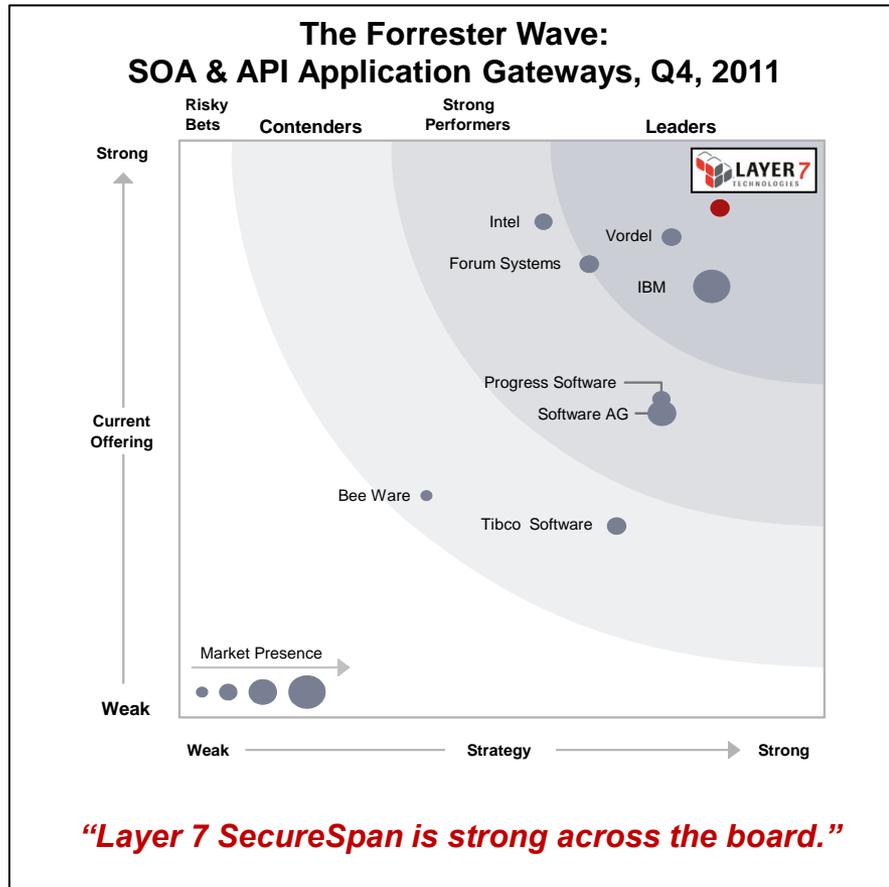
Decouple Non-Business Functionality from Applications



Loosely Coupled connections has always been the goal for architecting the better IT systems.

- Dependencies on Integration, Interoperability, and Security are too painful if embedded into Application Business Functionality
- Non-Invasive Gateways intercept Application Layer traffic, protocols, & data
- Choose Deployment vehicle: Virtual, Cloud, Software, Hardware appliance

An Industry Leader



Additional Notable Recognition



Some of our 300+ Customers

Financial Services



Communications



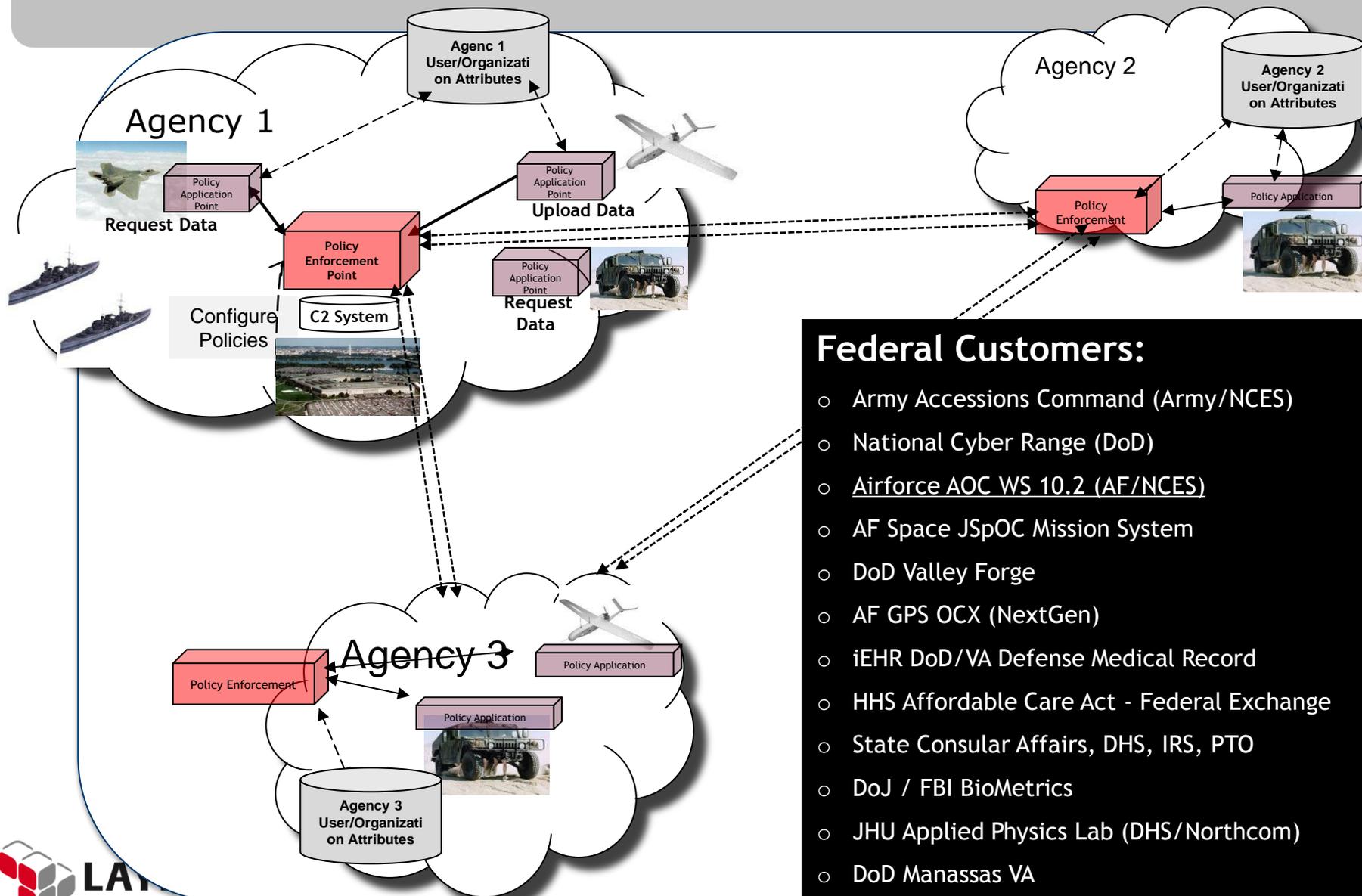
Public Sector



Select Others



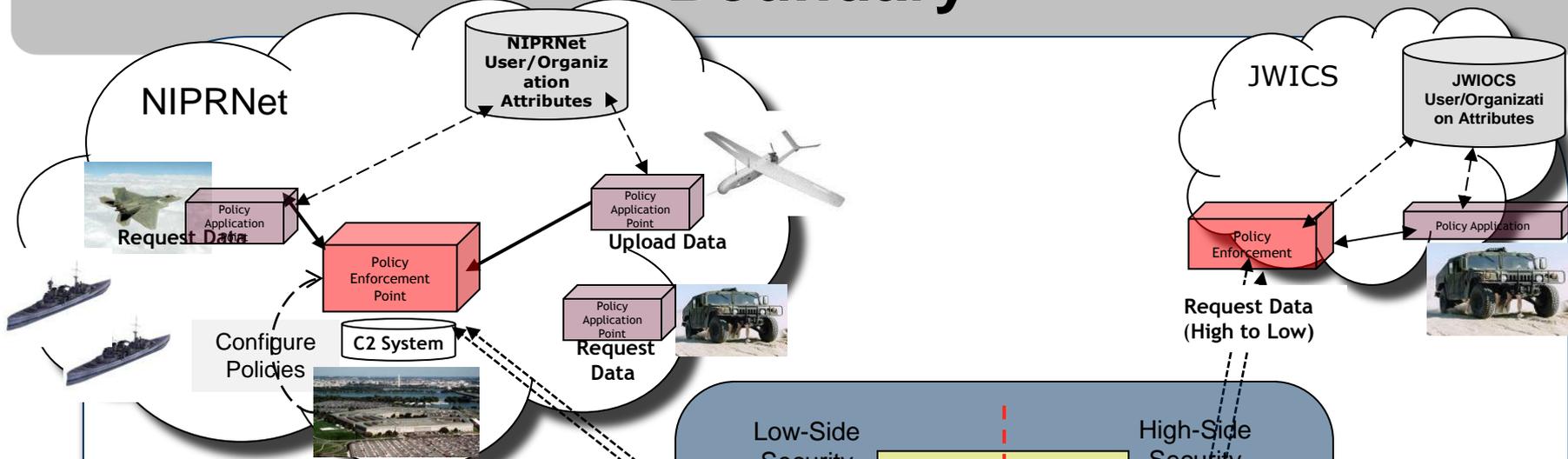
Challenge: Multi-Agency Integration Examples



Federal Customers:

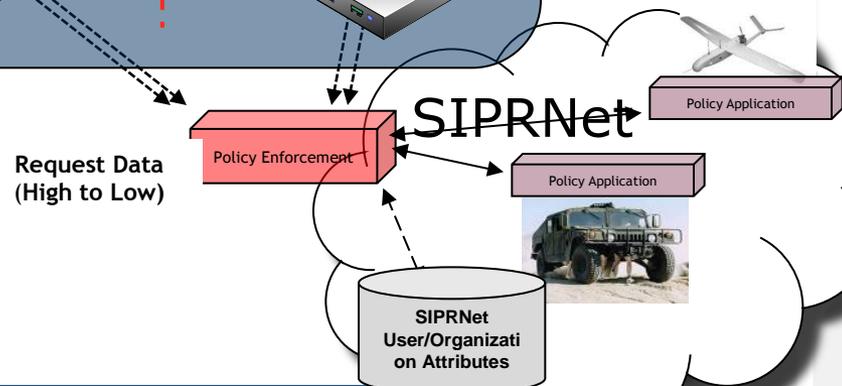
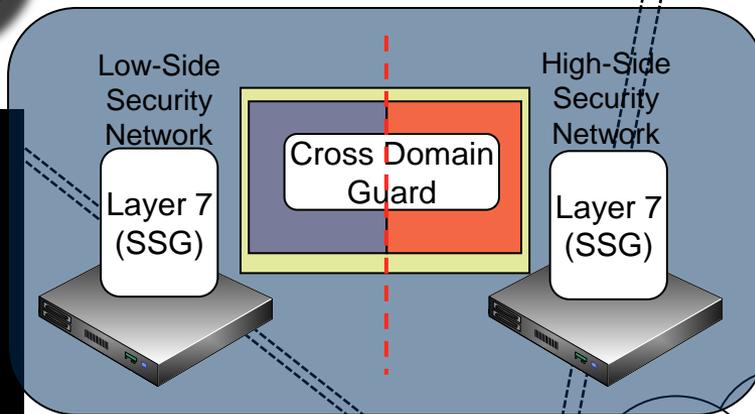
- Army Accessions Command (Army/NCES)
- National Cyber Range (DoD)
- Airforce AOC WS 10.2 (AF/NCES)
- AF Space JSpOC Mission System
- DoD Valley Forge
- AF GPS OCX (NextGen)
- iEHR DoD/VA Defense Medical Record
- HHS Affordable Care Act - Federal Exchange
- State Consular Affairs, DHS, IRS, PTO
- DoJ / FBI BioMetrics
- JHU Applied Physics Lab (DHS/Northcom)
- DoD Manassas VA

Challenge: Cross-Domain, Cross-Network Boundary



Cross-Domain Examples:

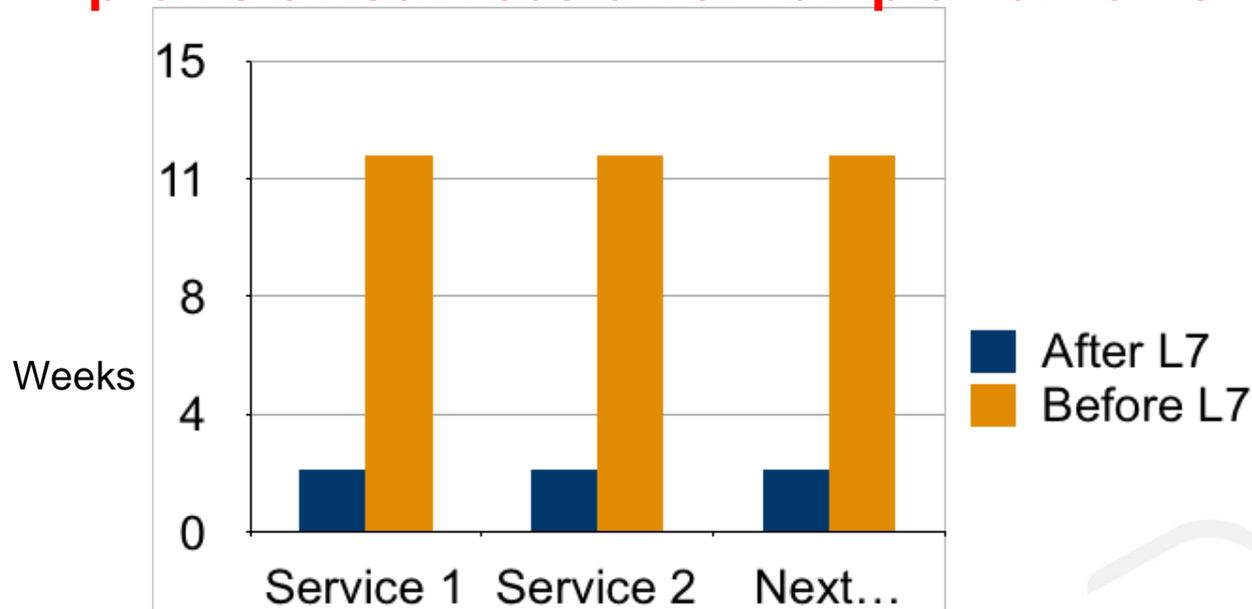
- Air Force Research Labs
- Classified customer DSCDS
- BAE Systems / JFCOM (DSG/XTS)
- Raytheon High Speed Guard (HSG)
- C4ISR "Empire Challenge"
- Lockheed Martin Radiant Mercury
- GDC4S TNE Tactical Guard
- Multi-National Information Sharing



Business Benefit: Flexibility & Cost Savings

Fastest way to Operational Deployment / IATO and ATO

Case Study: 300 % improvement in time to provision services onto multiple networks



- ⑩ DoD Customer, AGILE Architecture including IA review, was previously 13 weeks, now 2-3 weeks per iteration
- ⑩ Not writing IA code, ONLY gateway policies require review
- ⑩ Leveraging hybrid Virtual and Hardware mix in production

The Open Enterprise

Connect Partners and Divisions



Provide Bridge to Cloud



Provide Secure Mobile Backend to Apps



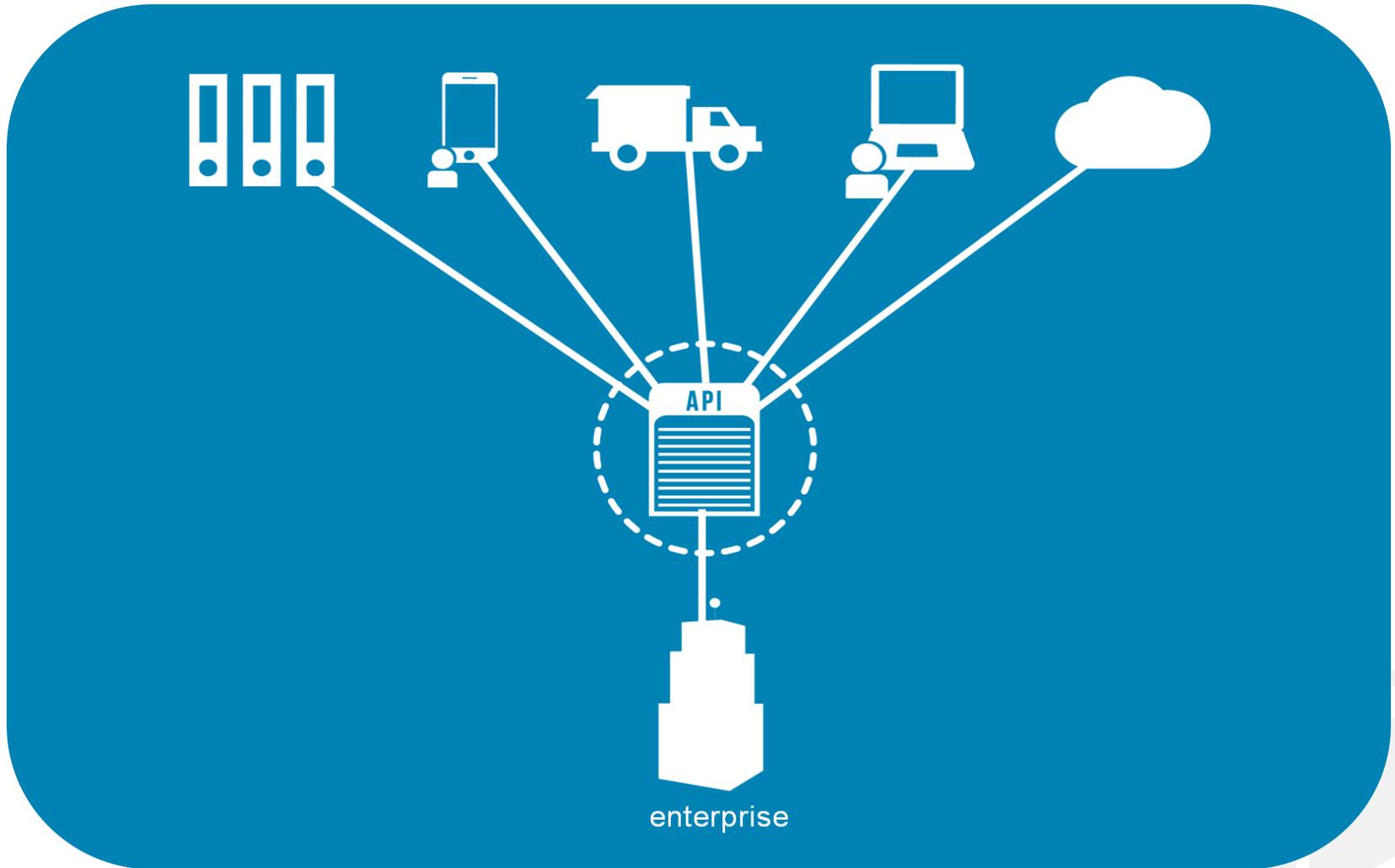
Enable Internal & External Developers



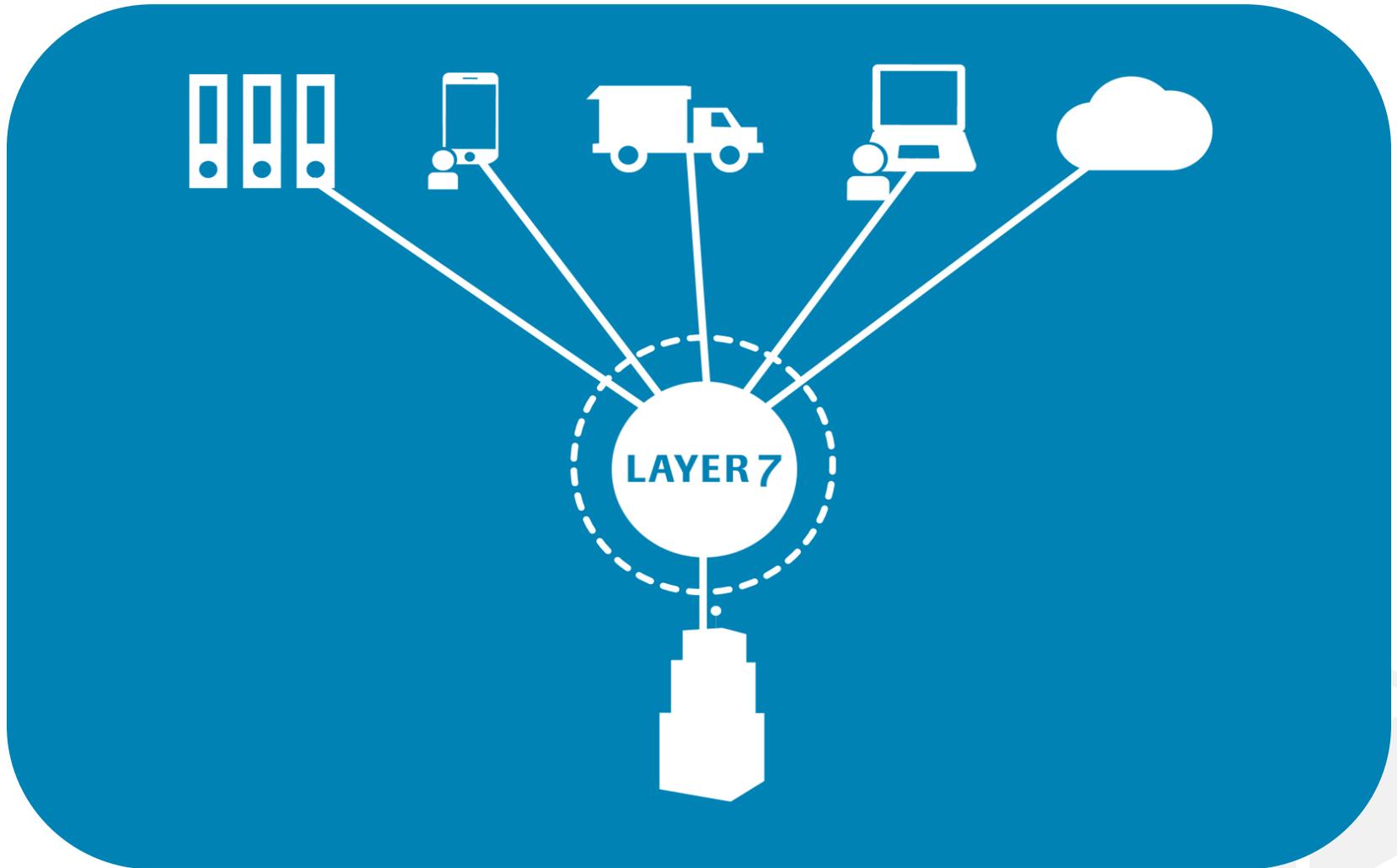
Solve Big Data Problems in Internet of Things



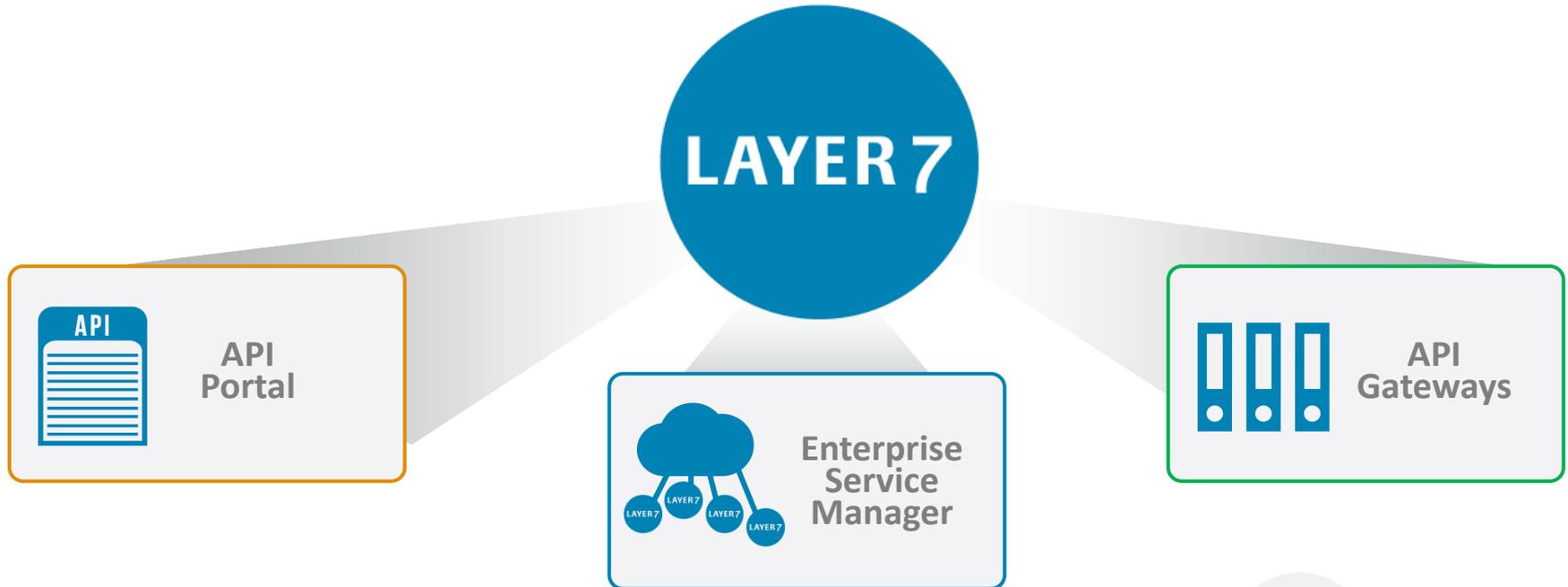
APIs – Gateway to the Open Enterprise



Layer 7's Vision



Our API Management Suite

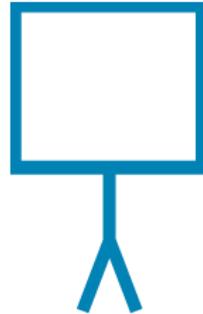


Additional Benefits

Global support centers



On-site training



API Design Assistance



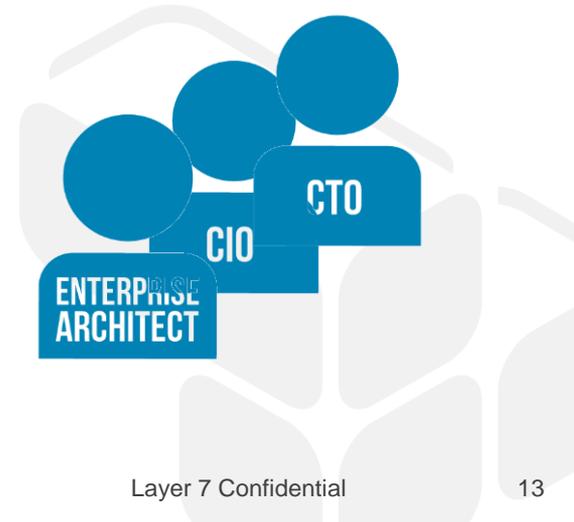
Flexible, extensible



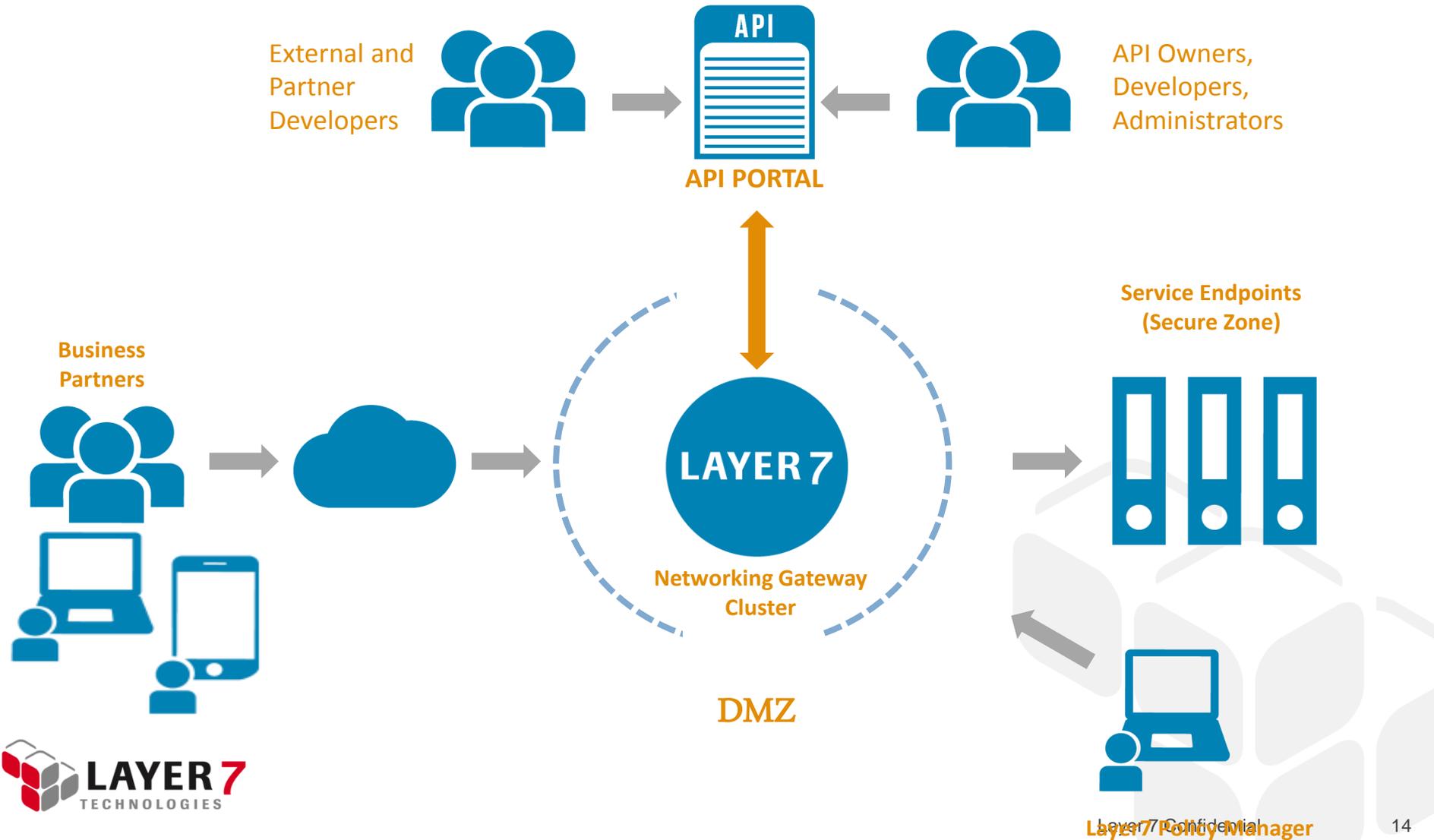
API Promotion



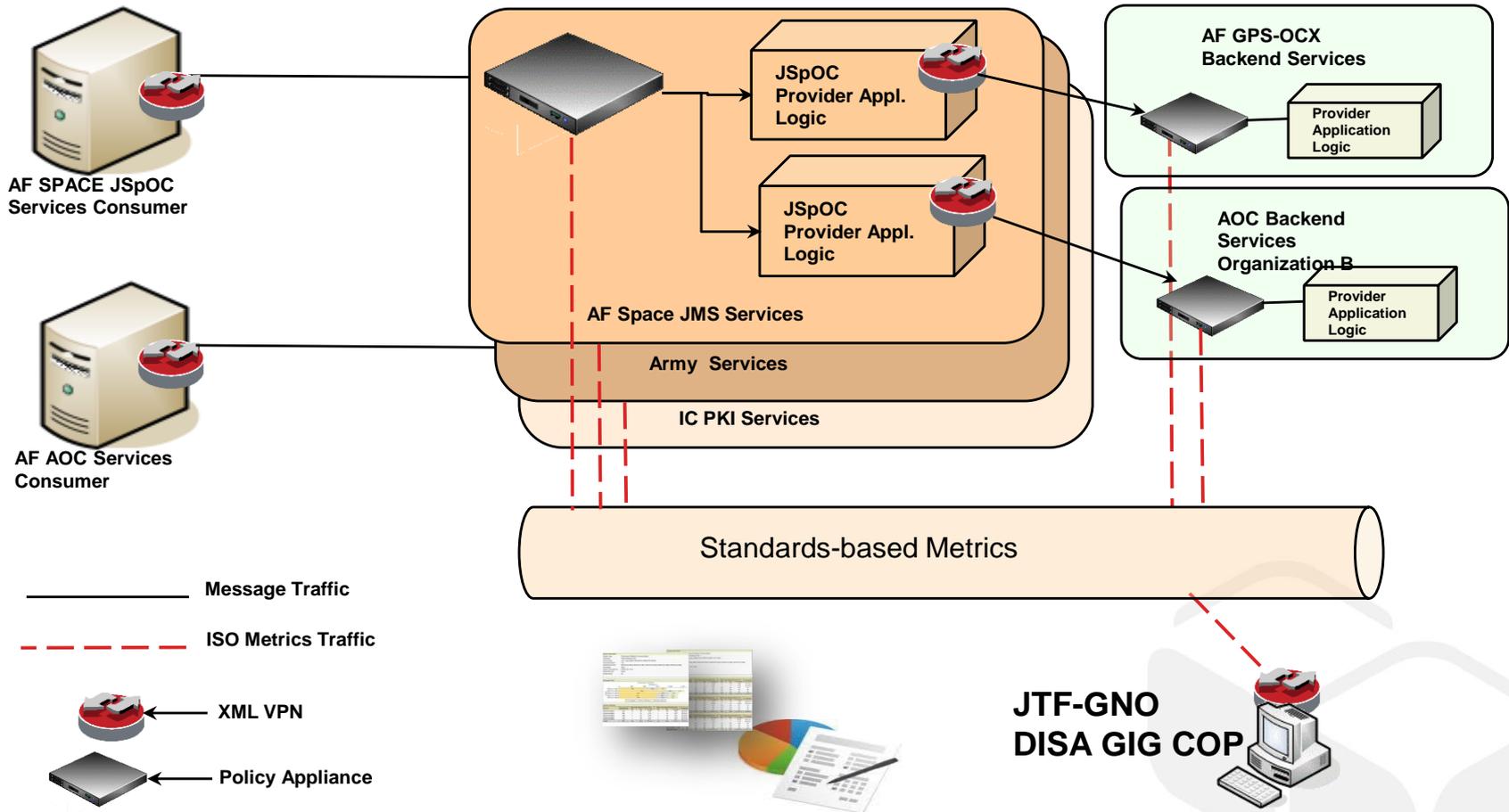
IT Friendly



The API Portal and the Gateway



Collection for QoS/SLAs, Throttling, Traffic Shaping

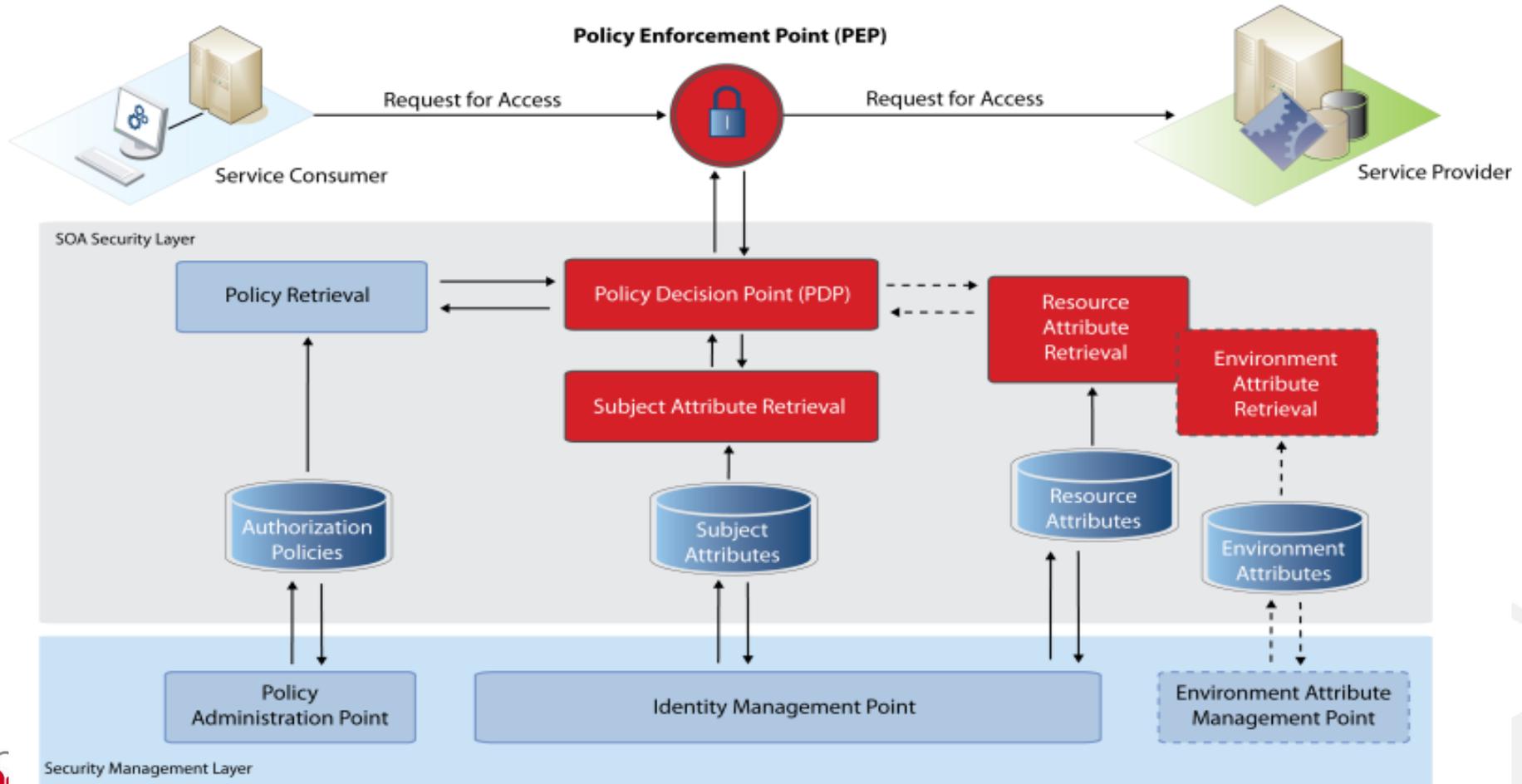


Who is doing what, when, too much?

Reference Implementation across DoD/IC/DHS/Civ

Repeatable & Standards-based

Policy-Based Decoupling of Access Control
Joint DOD/IC Security Reference Architecture



Red box = Functionality Provided by



Features of the API Gateway

10010010110

Security

- Passed the most rigorous vulnerability tests including:
 - ✓ Common Criteria EAL4+
 - ✓ FIPS 140-2 Level 3
 - ✓ PCI DSS
 - ✓ US Military STIG Certified
- SAML and OAuth, STS
- **WS-* compliant stack**
- Integral PKI and available HSMs
- **Identity extraction from message or transport**
- Authentication and auth against any popular IAM
- Monitoring and metering by service
- **Alerting and traffic throttling, monitoring SLA violations**



Performance & Scale

- Software based acceleration
- Clustered architecture allows linear scalability across Layer 7 Gateways
- Automatic failover for redundancy
- Application level traffic throttling and prioritization for XML and JSON messaging
- Transformation
- Cryptography
- Caching (onboard and external)



Manageability

- Advanced RBAC controls
- Handle migrations across dev, test, production, dr
- Global management that can span datacenters and cloud
- Enterprise Services Manager ESM monitors KPIs and allows you to migrate policies
- Integrate with reporting, BI, analytics tools inside enterprise
- ESB Transport bridging
- Manage policies and services remotely with SOAP and JAVA API



Flexibility & Integration

- Multiple form factors & deployment models
- Support for wide range of platforms
- Any-to-any identity translation features for simplified access management (i.e. XML, JSON)
- Protocol Bridging
- Bindings Conversion
- Intelligent, content-based routing
- Content transformation with the ESB



Extensibility

- Highly extensible solutions allowing for customization without coding
- Java SDK for dynamic new feature additions
- Plug in frameworks to add new transports and identity providers
- Broad product APIs for deep integration with enterprise management and BI products
- Virus scanning with Symantec
- Identity Provider connectivity
- Custom Assertion APIs

API Gateway Form Factors

Appliance



Virtual

vmware®

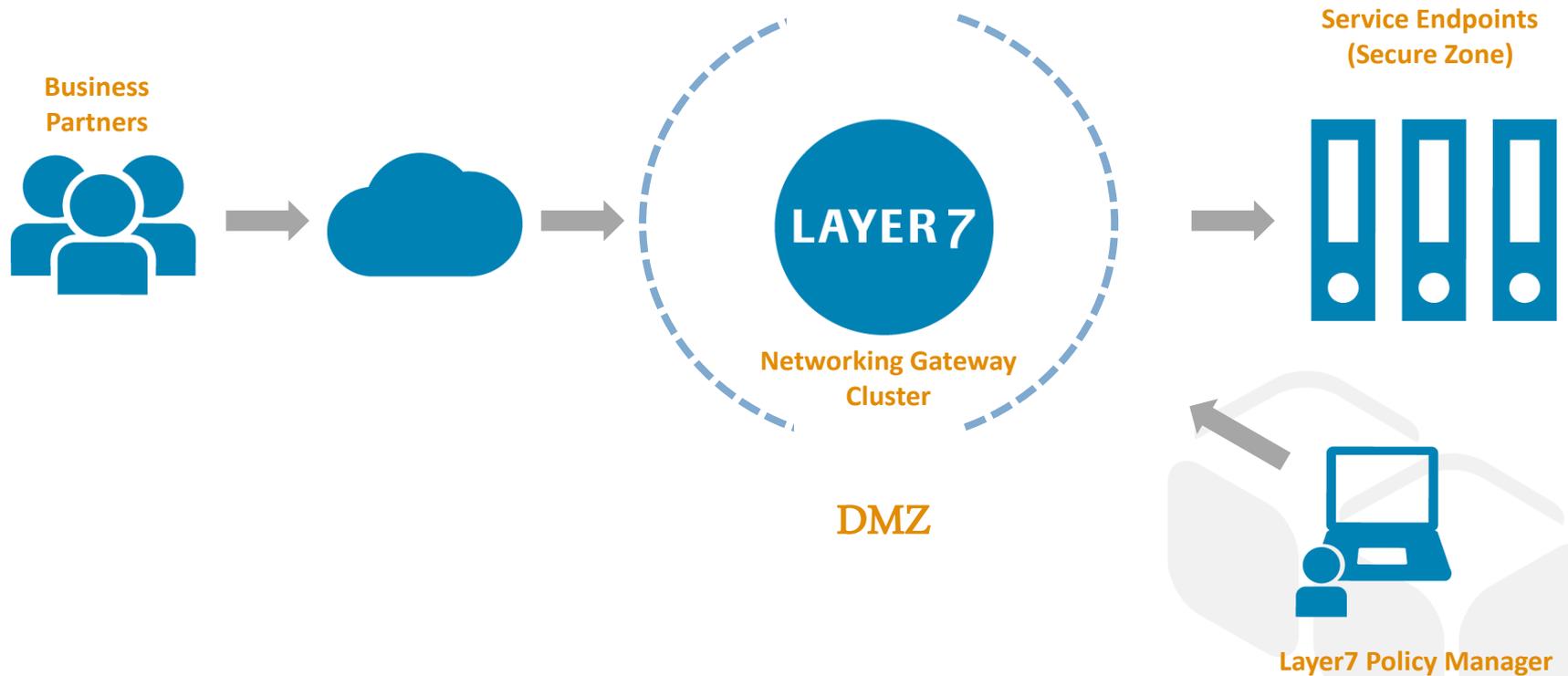
Cloud



Software



The Gateway within Enterprise IT



Use Case 1: Erie Insurance

Partner Access OAuth Validation

Problem

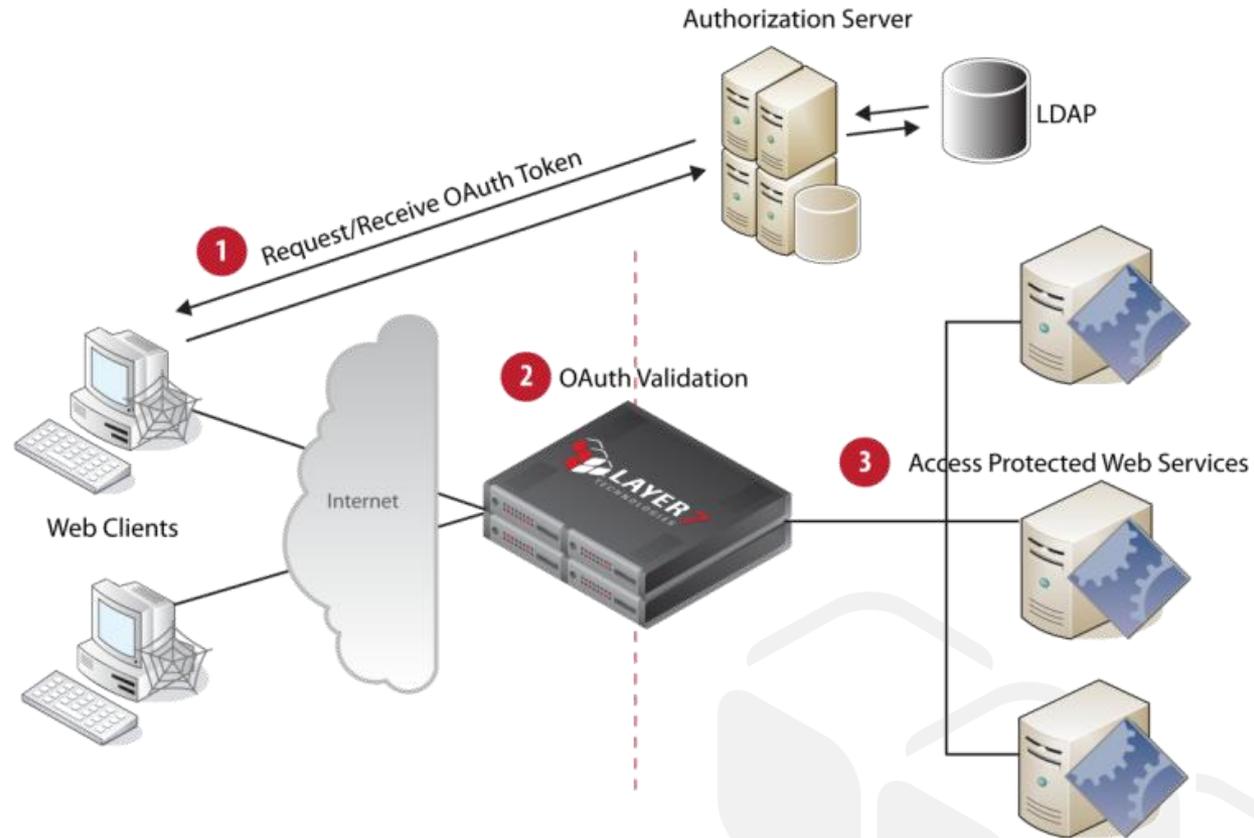
Provide insurance agents with secure access to Erie's applications over the Web

Solution

SecureSpan provides centralized validation of Erie's OAuth token for all backend services

Results

Layer 7 reduces maintenance overhead by removing OAuth validation code from each of Erie's backend applications



Use Case 2: Time Warner Cable

Developer Access Open APIs to Game Console Devs

Problem

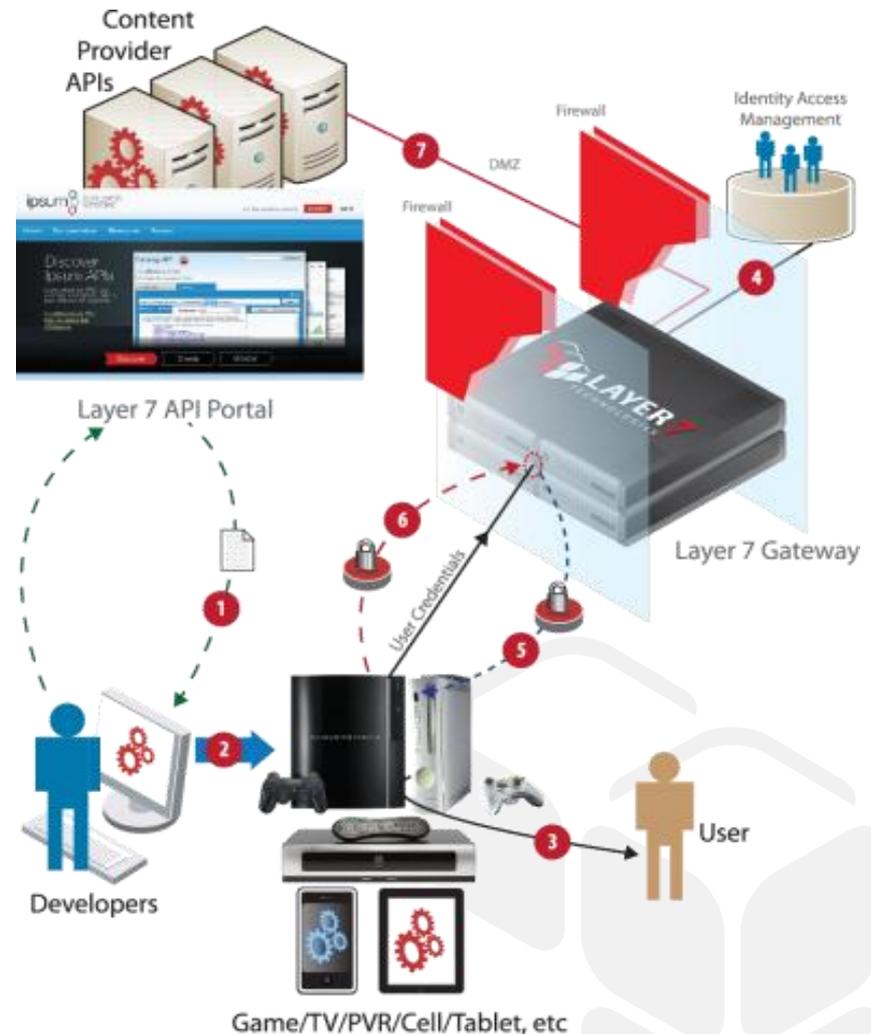
Time Warner Cable wanted to provide secure, streaming premium content on Xbox 360 via app on the Xbox.com marketplace

Solution

Deployed Layer 7's API API Portal, OAuth toolkit and Gateway technologies to securely expose APIs and connect to Xbox marketplace. TWC still owns relationship with their end users and can control their service mix via Gateway integration with back end OSSs.

Results

Reduced time to deployment in marketplace, broader customer base for premium content and effective controls over piracy and other threats



Use Case 3: Amerigroup Healthcare

Mobile Access

Empowering a mobile workforce via iPad

Problem

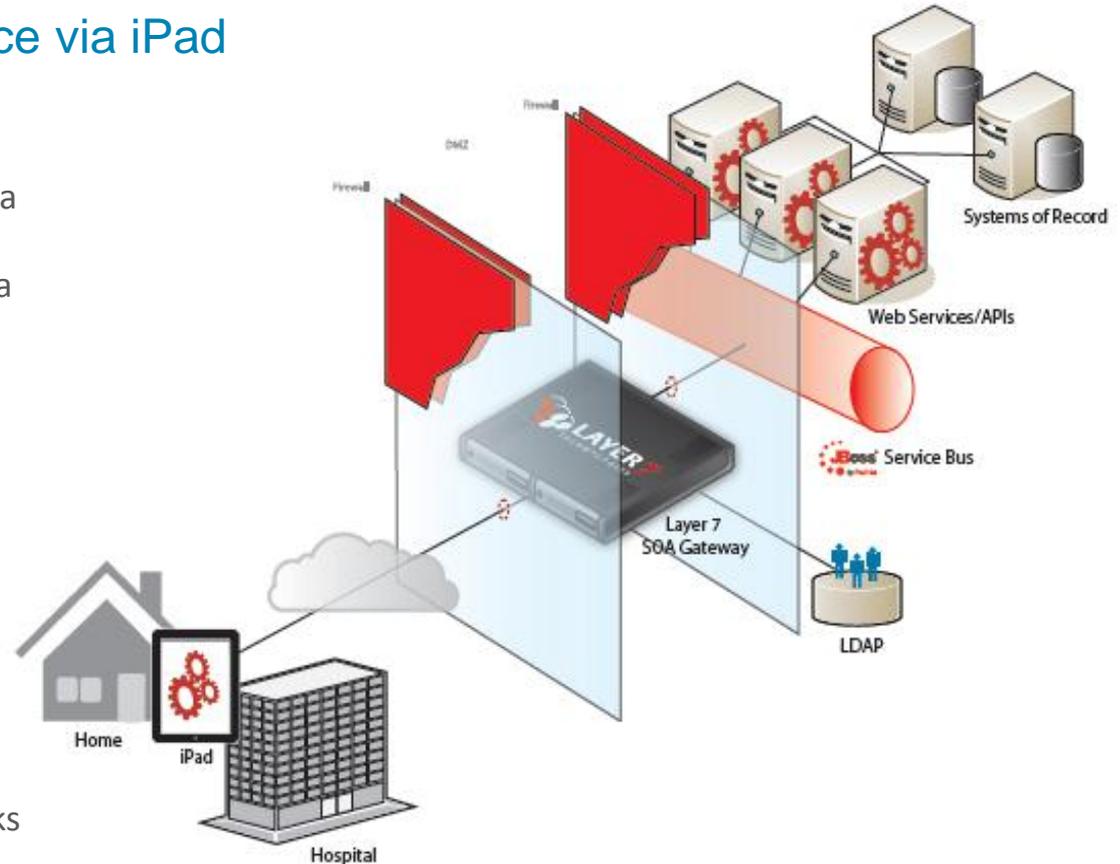
Amerigroup wanted to leverage tablets to improve the efficiency and accuracy of data collection from insurance clients by allowing associates to securely submit data via an iPad app

Solution

Deployed Layer 7's API authentication, authorization and threat protection technologies to securely connect the iPad with internal applications exposed as APIs and make it easier for internal developers to build on APIs exposed by Amerigroup

Results

Reduced time spent on administrative tasks and increased time spent with clients, leading to more efficient decision making and enhanced client services



Use Case 4: Best Buy

Cloud Access

Govern Integrations between Enterprise and AWS

Problem

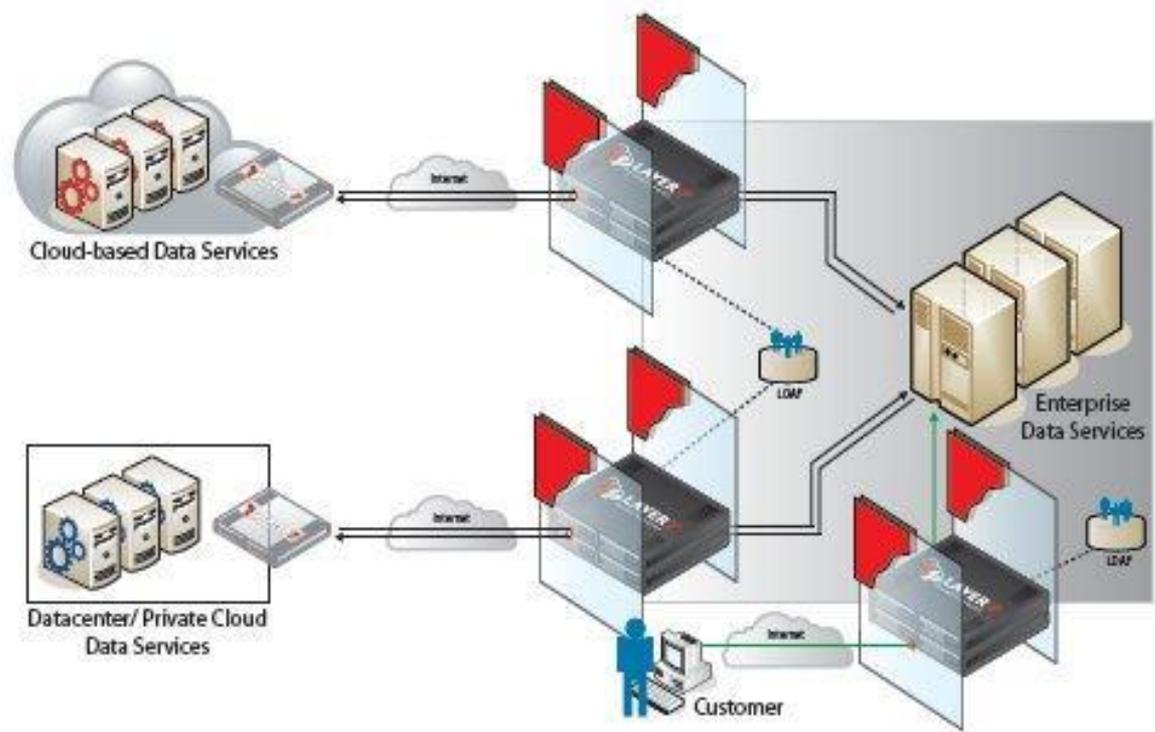
Best Buy wanted a secure and govern integrations between the enterprise datacenter and the cloud

Solution

Layer 7 provides a cloud governance gateway for securing, managing and mediating application interactions between the enterprise and the cloud

Results

Created a common control layer for development teams building composite applications across the datacenter and cloud



Use Case 5: Adobe

Big Data Access

Govern Integrations between Enterprise and AWS

Problem

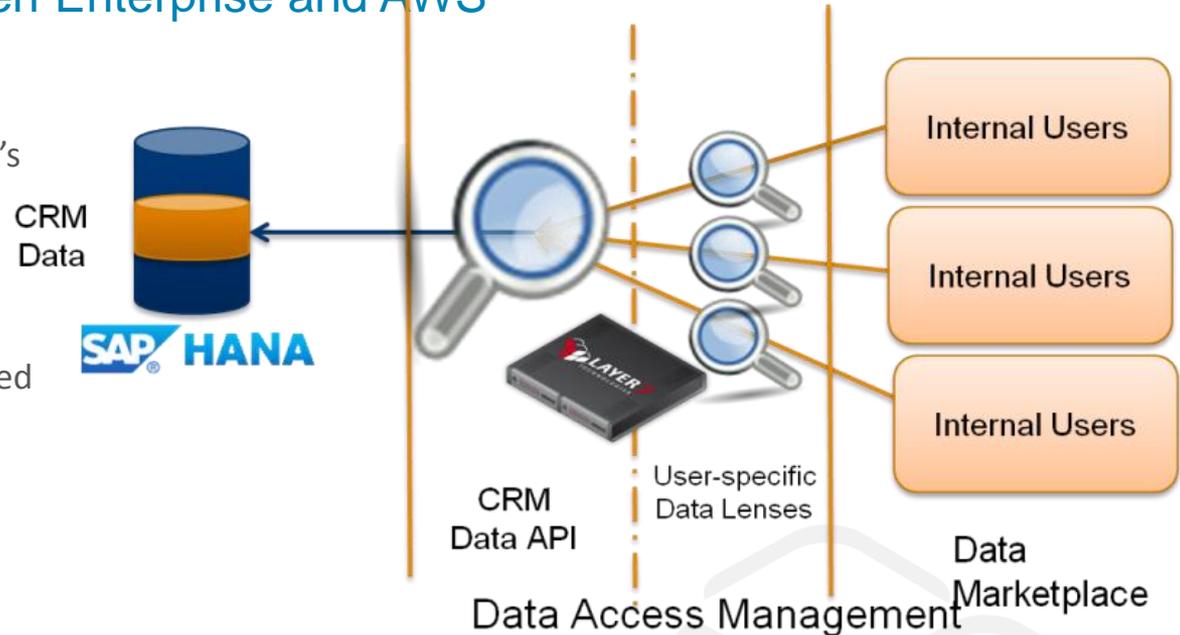
Adobe moved their CRM data to SAP HANA and needed a way to use HANA's analytics within business processes across the enterprise

Solution

Layer 7's Data Lens framework was used to provide noSQL interfaces and enterprise-wide access control to the CRM data

Results

Adobe was able to streamline their customer management processes, and provide greater efficiency in the supply chain while ensuring appropriate protection of the sensitive client data



Help your clients build an Open Enterprise

