Layer 7 Company and Products Overview

API BUILDING BLOCKS FOR THE OPEN ENTERPRISE
### 4 Primary API-related Problem Areas

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<tbody>
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<td><strong>Problem Addressed:</strong> Simplify connectivity to cloud for SaaS &amp; IaaS</td>
<td><strong>Problem Addressed:</strong> Mobile middleware for helping enterprises make apps available to mobile devices securely</td>
<td><strong>Problem Addressed:</strong> Expose internal information assets to outside developer communities via APIs</td>
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#### Secure & Govern X-Domain Integrations
- Translate data types
- Route messages across endpoints
- Build & orchestrate APIs
- Secure data, APIs
- Enforce access policies
- Provide security & operations integration point

#### Simplify SSO & Integration to Cloud
- SaaS integration
- SaaS SSO
- Hybrid Cloud Enablement
- Cloud Bursting
- Monitor usage of cloud services centrally

#### 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

#### 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

- 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

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

The Forrester Wave:
SOA & API Application Gateways, Q4, 2011

The Forrester Wave:
API Management Platforms, Q1, 2013

“Layer 7 SecureSpan is strong across the board.”

“Layer 7 has strong features and has a commanding market presence.”

Additional Notable Recognition
Some of our 300+ Customers
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
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

DoD Customer, AGILE Architecture including IA review, was previously 13 weeks, now 2-3 weeks per iteration

Not writing IA code, ONLY gateway policies require review

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

Layer 7 Confidential
APIs – Gateway to the Open Enterprise
Layer 7’s Vision
Our API Management Suite

API Portal

Enterprise Service Manager

API Gateways
Additional Benefits

- Global support centers
- On-site training
- API Design Assistance
- Flexible, extensible
- API Promotion
- IT Friendly
The API Portal and the Gateway

- External and Partner Developers
- API Portal
- API Owners, Developers, Administrators
- Networking Gateway Cluster
- DMZ
- Service Endpoints (Secure Zone)
Built-in Real-time, Fine-grained Metrics 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
Features of the API Gateway

**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

Cloud

Software
The Gateway within Enterprise IT

Business Partners

Networking Gateway Cluster

DMZ

Service Endpoints (Secure Zone)

Layer 7 Policy Manager
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.xom 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