Building Blocks for the Hybrid Enterprise

- Connectivity & Security Challenges for Open Enterprise:
  - Protection of applications exposed over internet
  - Reuse of information shared across departments, partners, mobile & Cloud
  - Ease of integration: reconciling disparate identity, data types, standards, services
  - Federated & Delegated Security
  - Performance optimization (caching, protocol compression, …)
  - Brokering cloud services
  - Proxy connections to social, cloud, notification services that enterprises can control
  - Cloud interactions
  - Central governance of policies and security

We Call This new Open, Extended Enterprise the Hybrid Enterprise Because it Blends Inside and Outside as well as Private and Public

Over the Top TV and Media (Xbox Live and Smart TV)
Private Cloud Annexes (Savvis or Datacenter)
Open APIs for Developer Channel
Real-time Partner Integration
Cloud Services
Mobile / Tablet Apps
Web Platform Integration

Layer 7 Confidential Information Presented Under NDA
### Layer 7 Gateway

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<tbody>
<tr>
<td><strong>Problem Addressed:</strong> Simplify real-time integration across divisions and partners via SOA technology</td>
<td><strong>Problem Addressed:</strong> Expose internal information assets to outside developer communities via APIs</td>
<td><strong>Problem Addressed:</strong> Mobile middleware for helping enterprises make apps available to mobile devices securely</td>
<td><strong>Problem Addressed:</strong> Simplify connectivity to cloud for SaaS &amp; IaaS</td>
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<td>Secure &amp; Govern X-Domain Integrations</td>
<td>Open APIs to Developer Communities</td>
<td>Manage Mobile Apps Security</td>
<td>Simplify SSO &amp; Integration to Cloud</td>
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<tr>
<td>- Translate data types</td>
<td>- Secure and manage APIs exposed to outside</td>
<td>- Manage user, app, device access</td>
<td>- SaaS integration</td>
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<td>- Route messages across endpoints</td>
<td>- Onboard and manage developers</td>
<td>- Translate internal &amp; external identity representations</td>
<td>- SaaS SSO</td>
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<td>- Build &amp; orchestrate APIs</td>
<td>- Monetize and monitor APIs</td>
<td>- Build Oauth &amp; OpenID Connect connections</td>
<td>- Hybrid Cloud Enablement</td>
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<td>- Secure data, APIs</td>
<td>- Foster different developer communities for internal, partner and public developers</td>
<td>- Provide data security &amp; app firewalling (websockets etc)</td>
<td>- Cloud Bursting</td>
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<td>- Enforce access policies</td>
<td>- Make applications more consumable by mobile apps</td>
<td>- Proxy Social, Cloud for enterprise</td>
<td>- Monitor usage of cloud services centrally</td>
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<td>- Provide security &amp; operations integration point</td>
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<td>- Certificate provisioning for X-app communication</td>
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**Layer 7 Confidential Information Presented Under NDA**
Layer 7 Products Address Key Areas of API Security, Management & Connectivity

API Integration Gateway
- Transformation
- Routing
- Traffic Control
- Composition
- Throttling
- Prioritization
- Caching
- Security

API Identity & Access Broker
- Authentication
- Entitlements
- API Keys
- Single Sign On
- Token Service
- OAuth 1.x
- OAuth 2.0
- OpenID Connect

API Service Manager
- Health Tracking
- Performance
- Global Staging
- Config Migration
- Workflow
- Patch Management
- Policy Migration
- Reporting

API Developer Portal
- Developer Enrollment
- Plans
- API Explorer
- API Docs
- Quotas
- Rankings
- Analytics
- Forums
Strong 150+ Customer Base Across 6 Continents

Financial Services
- AXA
- MoneyGram International
- Northern Trust
- RBS
- MasterCard
- UNUM
- Paychex
- Allstate
- USAA

Communications
- TIME WARNER CABLE
- france telecom
- BT
- SAVVIS
- Telstra
- swisscom
- Rogers

Public Sector
- U.S. Army
- U.S. Air Force
- DISA
- FAA
- U.S. Department of Homeland Security
- NATO
- U.S. Department of Justice

Other
- Norfolk Southern
- Duke Energy
- Fannie Mae
- Sempra Energy
- Adobe
- UTI
- BEST BUY
- 3M
- Shell
- CISCO
- Amerigroup
- RealSolutions
- GM
- NVIDIA
- Alaska Airlines
Federal Sector Past Performance

Intelligence Community Customers (SIPR/JWICS)
- JRAE Joint Rapid Architecture & Engineering
- General Dynamics Classified
- Army National Ground Intelligence Center
- Office Director National Intelligence
- Various Intelligence Agency Programs
  - PKI, Data Sharing, Data Collection/Tagging

DoD “Back Office” Customers (NIPR)
- Army/AF Exchange
- Army Accessions Command
- iEHR Military Health DoD/VA

Cross Domain Customers (NIPR/SIPR)
- BAE Systems DSG/XTS-400
- AFRL CDIS
- General Dynamics Embedded Tactical XCV (Joint Light Tactical Vehicle, etc)
- AF Lackland AFB
- Radiant Mercury
- NSA DSCDS

DoD Mission Customers (NIPR/SIPR/JWICS)
- Army ID Protect
- DISA NCES M2M, Discovery/Registry
- DISA IA 43 Lab / Empire Challenge 2009
- AF Space C2 Gap Filler
- Army CECOM SOA Foundation
- OSD Computer Network Defense
- AF Space JSpOC Joint Mission System
- AF GPS OCX (Next Gen)
- AF Schriever AFB DMOC-S Simulation
- AF Eglin AFB JMS Testing
- AF Air Operation Center - AOC WS
- Navy SPAWAR – Intel, Surveillance, & Reconnaissance

Department of Homeland Security
- US Coast Guard
- US Visit
- CBP Agency Wide
- Transportation Safety Agency

Health and Human Services
- Centers for Medicare/Medicaid

Department of Transportation
- National Highway Travel Safety
- FAA SWIM System Wide Information Mgmt
- Surveillance Broadcast System
- FAA NextGen Weather

Dept. of Treasury
- Internal Revenue Service

Dept. of Energy
- Sandia Nat’l Lab

Dept. of State
- Consulate Affairs

Dept. of Commerce
- Patent Trademark Office

NATO (Coalition)
- Canada Dept of National Defense
- Danish Defense
- NATO UK MoD
Business Challenge: Flexibility & Cost Savings
Fastest way to Operational Deployment / IATO and ATO

With Layer 7 – 300 % improvement in time to provision services onto NIPR/SIPR/JWICS

- Completed task, including IA review, in less than 2 weeks
- No new code, only gateway configuration & policy review
Thank You