F5 Identity and Access Management (IAM) Overview

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F5’s Security Strategy

- Protect Apps/Data Wherever They Reside
- Control Access to Apps/Data from Anywhere and Any Device
- Offer Scalable and Easy Management/Orchestration
Identity and Access Management trends

- IAM, security and risk management are overlapping, related disciplines
- Expansion of risk-based authentication
- Greater focus on request context
- Intersection of social, mobile, cloud, and data
Controlling and managing access more difficult than ever

Manage access based on identity

IT challenged to:
- Control access based on granular attributes, such as user-type and role
- Unify access to all applications (mobile, VDI, web, client-server, SaaS)
- Provide fast authentication and SSO
- Audit and report access and application metrics
Maintain Complete Visibility and Control Across Applications and Users

Secures access to applications from anywhere

Protects your applications regardless of where they live
Identity and Access Management (IAM) solution
Authentication, authorization, and SSO to all apps
Identity Federation and Single Sign-on
Identity and Access Management (IAM) solution
Authentication, authorization, and SSO to all apps
Single Sign-On (SSO) Challenges

- Too many agents or proxies

- Difficult to visualize single sign-on topology and deployment

- Single sign-on require flexibility
Identity Federation (SSO) Benefits

- Dramatically reduces infrastructure costs while increasing user productivity
- Provides seamless access to all web resources
- Enhances user experience
- Instantly provisions and de-provisions access to cloud apps
Identity Federation Architecture

- Users
- Corporate Users
- Attackers

- On-Premises Infrastructure
- Corporate Applications
- Directory Services
- Access Management

- SAML
  - Identity management
  - Multi-factor authentication

- SAML
  - Real-time access control
  - Access policy enforcement

- SaaS Providers
  - Office 365
  - Google Apps
  - Salesforce
## Federation case study

Sheffield Hallam University has more than 40,000 students, lecturers, and support staff rely on a single sign-on (SSO) solution to gain access to many different web-based applications. When their vital gateway started to become unreliable, the University replaced it with F5 BIG-IP Access Policy Manager (APM).

### CHALLENGES
- Provide a reliable single sign-on (SSO) system for online applications
- Increase application availability
- Improve application security
- Reduce downtime and administrative costs

### BENEFITS
- Highly reliable, resilient, and secure service
- Eliminated hours of downtime per month
- Improved IT management and maintenance
- Saved significant costs avoiding IT overtime
Remote Access and Application Access
Identity and Access Management (IAM) solution
Authentication, authorization, and SSO to all apps

Remote Access and Application Access
Secure Web Gateway

Internet Apps
Internet

Enterprise Apps

Internet Apps

Mobile Apps
Virtual Edition
Appliance
Chassis

Enterprise Mobility Management
Federation

Cloud, SaaS, and Partner Apps

F5 Agility 2014
Remote access and application access access challenges

- Enabling secure remote access to corporate resources from any network, from any device
- Ensuring secure and fast application performance for remote users
- Protecting network resources, applications and data from malware, theft or hack, and/or rogue and unauthorized access
Secure, accelerated remote access

- Fast and secure connections maximize productivity for global users
- Seamless integration minimizes cost and simplifies end user experience
What makes F5 Remote Access and Application Access different

- Integrated acceleration
- Superior scalability
- Native one-time password support
Remote Access and Application Access Case Study

Facebook, the world’s largest social networking site, needed to ensure that its remote access portal could provide fast, reliable connectivity and performance, without becoming a pathway for network intrusion and data theft. By deploying an F5 solution, Facebook connects remote employees, vendors, consultants, and partners to applications and web services quickly and reliably, without risk to sensitive user data.

<table>
<thead>
<tr>
<th>CHALLENGES</th>
<th>BENEFITS</th>
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<tr>
<td>• Provide fast, reliable remote access to corporate applications</td>
<td>• Provides fast, reliable remote application access</td>
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<tr>
<td>• Protect remote access portal from unauthorized access</td>
<td>• Provides sophisticated user authentication</td>
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<tr>
<td>• Onboard new partners quickly and securely</td>
<td>• Speeds onboarding of new business partners</td>
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Secure Web Gateway
Identity and Access Management (IAM) solution
Authentication, authorization, and SSO to all apps

Secure Web Gateway

Internet Apps
Web Access Management

Remote Access and Application Access

Internet
Enterprise Apps

Mobile Apps
Enterprise Mobility Management

Cloud, SaaS, and Partner Apps
Web access is a necessary part of an employee’s day
So, web defense is a necessity today

- **Security**
  Against web-based threats and malware

- **Productivity**
  Controlling access to time-wasting web sites

- **Accessibility**
  Managing web access and bandwidth allocation

- **Compliance**
  With corporate acceptable use policies (AUP) and regulatory policies
However, most web defenses fail for a variety of reasons

- Primarily based on signature and reputation
- Lack of real-time inline content analysis
- Forward facing only, lacks outbound protection
- “More of the same” in new deployment options
- SSL lacks visibility
F5 Secure Web Gateway Services (SWG)

- Reduces web security TCO by more than 65%
- Delivers context-aware web security/protection and improves productivity
- Protects against inbound and outbound malware
- Controls and preserves bandwidth
F5 Secure Web Gateway Services consolidate infrastructure and maintenance costs

- Single integrated solution (BIG-IP, VIPRION, VE) vs. multi-box, multi-engine solutions

- Total cost of ownership savings between 29% - 72%, depending on service (URL Filtering or SWG Services), subscription length (1-year or 3-year), and number of users
F5 Secure Web Gateway Services
One-stop for all access policy, inbound and outbound

- Reduces chances of human error
- Strengthens policies
- Reduces overhead
- Increases security posture
- Deliver consolidated policy views – both inbound and outbound
Secure Web Gateway Architecture
Replacement for Microsoft Threat Management Gateway
Web Access Management (WAM)
Identity and Access Management (IAM) solution
Authentication, authorization, and SSO to all apps

Secure Web Gateway

Remote Access and Application Access

Federation

Web Access Management

Internet Apps

Mobile Apps

Enterprise Mobility Management

Virtual Edition
Appliance
Chassis

Enterprise Apps

Cloud, SaaS, and Partner Apps
Enhanced Web Access Management

- Proxy web applications to provide authentication, authorization, endpoint inspection, and more
- All Layer 4-7 ACLS through F5’s Visual Policy Editor
What makes F5 Web Access Management different

More extensive consolidation at scale
Web Access Management case study

McAllen (Texas) Independent School District needed to ensure students adhered to web filtering policies as they accessed the Internet from outside of the campus network on district-issued Apple iPads. Using an F5 solution, the district solved that problem and gained the added benefit of protecting its network from distributed denial of service (DDoS) attacks.

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<td>• Extend web filtering to public networks</td>
<td>• Identifies and redirects off-network devices to web filter</td>
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<tr>
<td>• Prevent attacks by unauthorized users</td>
<td>• Protects against volumetric DDoS attacks</td>
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<tr>
<td>• Prepare for growth and future needs</td>
<td>• Provides a scalable, vendor-agnostic platform</td>
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Enterprise Mobility Management (EMM)
Identity and Access Management (IAM) solution
Authentication, authorization, and SSO to all apps

- Internet Apps
  - Internet
- Mobile Apps
  - Mobile Apps
- Secure Web Gateway
  - Internet Apps
  - Federation
- Virtual Edition
- Appliance
- Chassis
- Remote Access and Application Access
- Enterprise Mobility Management
  - Concur
  - Cloud, SaaS, and Partner Apps

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Enterprise Mobility Management (EMM)

- Ensure devices connect securely and adhere to a security posture baseline, regardless of ownership
- Reduce the risk of malware infecting the corporate network from corporate or personal mobile device
F5 and AirWatch

- **F5 Agility 2014**
- **F5 and AirWatch**

**GOOD**
- **BIG-IP Platform**
- **App Wrapping**
- **App Management**
- **Reporting**
- **Endpoint Inspection**
  - **App Tunnel Termination**
  - **Authentication**
  - **Access Policy Management**
  - **Identity Federation**
  - **Mobile App Security**
  - **Managed App Policy**

**BETTER**
- **AFM**
- **LTM**
- **APM**
- **ASM**

**BEST**
- **Data Center**
- **Salesforce.com**
- **Application Access Management**
- **Email**

**Simplified Business Models**

**Managed Apps**
- **App Tunnel + App Policy**
- **Remote Access**
- **Mobile Users**

**Unmanaged Apps**
- **No data transfer**
- **Data transfer**

**Managed Apps**
- **No data transfer**
- **Data transfer**

**Unmanaged Apps**

**AFM** BIG-IP Advanced Firewall Manager
**LTM** BIG-IP Local Traffic Manager
**APM** BIG-IP Access Policy Manager
**ASM** BIG-IP Application Security Manager

**No data transfer**
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**Data transfer**

**Application Access Management**

**Salesforce.com**

**Email**

**Mobile Application**

**Simplified Business Models**

**GOOD**

**BETTER**

**BEST**
Secure, managed mobile access, apps and devices

F5 delivers

- Per app VPN
- Secure remote (SSL VPN) access
- Supports ActiveSync and other proxy services
- Granular access policy management
- Application access management
- Federated identity/SSO

AirWatch delivers

- Mobile application management (MAM)
- Workspace application
- File readers and editors
- File systems and portal access
- Hardened endpoint client, webapp
- App wrapping

- Mobile device management (MDM)
- F5 mobile client provisioning and configuration
- Certificate and app provisioning
- Remote lock and wipe
What makes F5 EMM different

- Works across multiple EMM offerings
- Superior scalability
- Integrates captured data into enforceable access and security policies
Simplified VDI

- Improved scale and reliability
- Better user experience + SSO
- Simplified deployment
- Improved quality of real-time applications

- Optimize the experience for your users
- Simplify infrastructure and reduce costs
- Unify access control and security
VMware Horizon View Architecture

External Users

On-Premises Infrastructure

Internal Users

SSL Decryption
Authentication
High Availability
PCoIP Proxy

Access Management

On-Premises Infrastructure

HTTPS
PCoIP

HTTPS
PCoIP

HTTP/S
PCoIP

SSL Decryption
Authentication
High Availability
PCoIP Proxy

Access Management

Authentication

External Users

HTTPS
PCoIP

Internal Users

HTTP/S
PCoIP

Strategic Point of Control
Policy, Identity, Reports and Logs -> Centralised Audit Trail
F5 Identity Access Management Benefits

- **Saves time**
  - Leverages existing data stores

- **Lowers costs**
  - Significant consolidation of software and infrastructure

24/7

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What makes F5 IAM different

- Integrated acceleration
- Superior scalability
- Native one-time password support
- Integrates captured data into enforceable access and security policies
- One-stop for all access policy
Solutions for an Application World.