

A large, light blue abstract graphic that resembles a stylized 'O' or a circular shape with a vertical line through the center, set against a white background. The graphic is composed of several overlapping, rounded shapes in shades of light blue and white.

Top 8 Identity and Access Management Challenges with Your SaaS Applications

Okta Inc.
301 Brannan Street, Suite 300
San Francisco CA, 94107

info@okta.com
1-888-722-7871

wp-top8-113012

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The Importance of Identity for SaaS Applications

The enterprise cloud revolution is here. IT organizations everywhere, from small and mid-sized businesses to Fortune 500 companies, are moving from on-premises software to on-demand, cloud-based services. As enterprise IT makes this transition to a new hybrid on-demand/on-premises configuration, controlling who is granted access to which applications becomes increasingly important. This presents CIOs and their teams with a whole new set of identity management challenges. In addition, users must keep track of multiple URLs, user names, and passwords to get access to their applications. IT's role is also fundamentally changing. As the steward of these new services, IT must provide insight and advice about Software-as-a-Service (SaaS) products to ensure the company is maximizing the business value of their investments.

There are eight main identity and access management (IAM) challenges associated with adopting and deploying cloud and SaaS applications, as well as best practices for addressing each of them.

1. User Password Fatigue

Although the SaaS model initially makes it easier for users to access their applications, complexity quickly increases with the number of applications. Each application has different password requirements and expiration cycles. The variety of requirements multiplied by the variety of expiration cycles equals diminished user productivity and increased user frustration as they spend time trying to reset, remember, and manage these constantly changing passwords and URLs across all of their applications.

Perhaps of even greater concern are the security risks caused by the same users who react to this “password fatigue” by using obvious or reused passwords written down on Post-it notes or saved in Excel files on laptops.

Cloud-based IAM services can alleviate these concerns by providing single sign-on (SSO) across all of these applications, giving users a central place to access all of their applications with a single user name and password. Better yet, a cloud-based identity management system can also enable various departments to manage identities for both on-demand and on-premises applications.

The majority of enterprises use Microsoft Active Directory (AD) as the authoritative user directory that governs access to basic IT services such as email and file sharing. AD is often also used to control access to a broader set of business applications and IT systems. The right on-demand IAM solution should leverage Active Directory, and allow users to continue using their AD credentials to access SaaS applications; this increases the likelihood that users will find the newest and best SaaS applications their company provides them.

2. Failure-Prone Manual Provisioning and De-Provisioning Process

When a new employee starts at a company, IT often provides the employee with access to the corporate network, file servers, email accounts, and printers. Since many SaaS applications are managed at department level (Sales Operations manages

Salesforce.com, Accounting manages QuickBooks, Marketing manages Marketo, etc.), access to these applications is often granted separately by the specific application's administrator, rather than by a single person in IT.

Given their on-demand architecture, SaaS apps should be easy to centrally provision. A real cloud identity and access management service should be able to automate the provisioning of new SaaS applications as a natural extension of the existing on-boarding process. When a user is added to the core directory service (such as Active Directory), their membership in particular security groups should ensure that they are automatically provisioned with the appropriate applications and given the access permissions they need.

Almost certainly, an employee termination is a bigger concern. IT can centrally revoke access to email and corporate networks, but they have to rely on external application administrators to revoke the terminated employee's access to each SaaS application. This leaves the company vulnerable, in that critical business applications and data are in the hands of potentially disgruntled former employees and auditors looking for holes in your de-provisioning solution.

A cloud-based IAM service should not only enable IT to automatically add new applications, but it should also provide:

- Automated user de-provisioning across all on-premises and all cloud based applications.
- Deep integration with Active Directory.
- Clear audit trails.

The IAM service should provide organizations with the peace of mind that once an employee has left the company, the company's data hasn't left with them.

3. Compliance Visibility: Who Has Access to What?

It's important to understand who has access to applications and data, where they are accessing it, and what they are doing with it. This is particularly true when it comes to cloud services. However only the most advanced offerings like Salesforce.com offer any compliance-like reporting, and even then, it's siloed for just one application.

To answer auditors who ask you which employees have access to your applications and data, you need central visibility and control across all your systems. Your IAM service should enable you to set access rights across services, and provide centralized compliance reports across access rights, provisioning and de-provisioning, and user and administrator activity.

4. Siloed User Directories for Each Application

Most enterprises have made a significant investment in a corporate directory (such as Microsoft Active Directory) to manage access to on-premises network resources. As organizations adopt cloud-based services, they need to leverage that investment and extend it to the cloud, rather than create a parallel directory and access management infrastructure just for those new SaaS applications.

A best-of-breed cloud-based IAM solution should provide centralized, out-of-the-box integration into your central Active Directory or LDAP directory so you can seamlessly leverage and extend that investment to these new applications—without on-premises appliances or firewall modifications required. As you add or remove users from that directory, access to cloud-based applications should be modified automatically, via industry standards like SSL, without any network or security configuration changes. Just set and forget.

5. Managing Access across and Explosion of Browsers and Devices

One of the great benefits of cloud applications is that access is available from any device that is connected to the Internet. But more apps means more URLs and passwords, and the rise of mobile devices introduces yet another access point to manage and support.

IT departments must facilitate access across multiple devices and platforms without compromising security—a difficult feat with existing IAM systems.

A cloud-based IAM solution should help both users and administrators solve the “anywhere, anytime, from any device” access challenge. It should not only provide browser-based SSO to all user applications, but it should also enable access to those same services from the user’s mobile device of choice.

6. Keeping Application Integrations Up to Date

Truly centralizing single sign-on and user management requires building integrations with numerous applications and keeping track of the maintenance requirements for new versions of each application. For the vast majority of organizations, having their IT department maintain its own collection of “connectors” across that constantly changing landscape is unrealistic and inefficient.

Today’s enterprise cloud applications are built with cutting-edge, Internet-optimized architectures. The modern web technologies underlying these applications provide excellent choices for vendors to develop their service and its associated interfaces. Unfortunately for the IT professionals, that also means that every new vendor may require a new approach when it comes to integration, particularly concerning user authentication and management.

In addition, like on-premises applications, SaaS apps change over time. A good cloud-based IAM solution should keep up with these changes and ensure that the application integration, and thus your access, is always up to date and functional. Your IAM service should mediate all the different integration technologies and approaches, making these challenges transparent for IT. And as the various services’ APIs change and multiply, the cloud IAM provider should manage these programmatic interfaces, offloading the technological heavy-lifting away from your IT department, so they no longer have to track dependencies between connectors and application versions.

This should also make adding a new application into your network as easy as adding a new app to your iPhone. With only minimal, company-specific configuration, you should be able to integrate new SaaS applications with SSO and user management capability within minutes.

7. Different Administration Models for Different Applications

As cloud applications become easier and less expensive to get up and running, companies are adopting more point SaaS solutions every day. These solutions are often managed by the corresponding functional area in a company, such as the Sales Operations group in the case of Salesforce.com. This can benefit IT (because it leaves application administration to others and frees up time), but it can also create a new problem because there is no central place to manage users and applications, or provide reports and analytics.

A cloud IAM service should provide IT with central administration, reporting, and user and access management across cloud applications. In addition, the service should include a built-in security model to provide the right level of access to your individual application administrators, so they can manage their specific users and applications within the same IAM system.

8. Sub-Optimal Utilization, and Lack of Insight into Best Practices

One reason for the rise of cloud applications is that monthly subscription models have replaced the upfront lump sum of the old, on-premises software license purchase. CFOs clearly prefer to pay for the services that employees use as they go. With no centralized insight into usage, however, IT and financial managers cannot manage these subscription purchases and have little idea whether they are paying for more than they actually use.

A cloud-based IAM service should provide accurate visibility into seat utilization and help IT optimize SaaS subscription spend. Managers should have real-time access to service utilization reports. In addition, by superimposing access trends to various applications across top employee performers, corporate executives should be able to use a centralized user management service to record and evangelize employee best practices.

Addressing These Challenges with Okta

Okta is an enterprise grade identity management service, built from the ground up in the cloud and delivered with an unwavering focus on customer success. The Okta service provides directory services, single sign-on, strong authentication, provisioning, workflow, and built in reporting. Enterprises everywhere are using Okta to manage access across any application, person or device to increase security, make people more productive, and maintain compliance.

Okta can be used to manage access across all of your applications, but if you are just getting started using Okta with your SaaS applications the service provides:

Users: One Designation for All of Their Applications

As a service, adding new users to Okta is as easy as adding a user to any other SaaS application. Once activated, each user receives a customized home page providing single sign-on across applications, and self-service across applications and credentials. The home page can be accessed across browsers and devices, and the entire home page or individual applications are easily integrated into a custom portal.

Administrators: Secure, Integrated Control Across People and Applications

For IT, Okta provides one service from which administrators can manage people, applications, and policies across all cloud and web applications. A central directory

provides a view of both people and the identities they are mapped to in all of their web applications. Adding applications is as simple as selecting a pre-integrated application from the Okta Application Network and performing the additional configuration that is specific to your organization.

Executives: Insight to Maximize ROI and Minimize Risk

The Okta service also offers a centralized system log that captures a comprehensive set of activity events across both Okta and the integrated applications. A full reporting experience spans all integrated applications, so no separate BI solution is needed. Out-of-the-box reports help executives track activity, ensure compliance, and monitor application usage and ROI.

Getting Started with Your Free Trial

person or device to increase security, make people more productive, and maintain compliance. The hundreds of enterprises, thousands of cloud application vendors and millions of people using Okta today also form the foundation for the industry's fastest growing, vendor neutral Enterprise Identity Network.

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The Okta team has built and deployed many of the world's leading on-demand and enterprise software solutions from companies including Salesforce.com, PeopleSoft, Microsoft, BMC, Arcsight, Sun, and HP. Okta is backed by premiere venture investors Andreessen Horowitz, Greylock Partners, Khosla Ventures and Sequoia Capital.

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