Citrix Workspace and the Okta Identity Cloud

Uniting SaaS apps with virtual apps and desktops using Okta identity management
Provide unified identity to the enterprise

Organizations increasingly rely on a growing number of software as a service (SaaS) apps as a part of their enterprise IT offerings, alongside traditional virtual apps and desktops. The combination of Citrix Workspace and Okta Identity Cloud simplifies and unifies identity management, while streamlining the user experience.

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Apps like Workday, Salesforce, Concur, Office365, G Suite, and many others have become fundamental and indispensable. At the same time, the move to the cloud is more than a simple migration to a different application delivery model. The average organization is also dramatically increasing the sheer number of applications they employ. In fact, the median number of apps per organization has grown 24% over the last two years.\(^1\) Citrix now estimates that the average organization supports over 500 applications. Despite the growth in SaaS apps, certain essential on-premises legacy apps show considerable "stickiness", and are likely to persist for years to come. Managing identity and access for these two distinct environments can present a considerable challenge.

With only a few SaaS apps, managing identity and access used to be a relatively straightforward matter. The growing adoption of SaaS apps makes this task considerably more problematic and time consuming. As users attempt to access all of the apps necessary to do their jobs, they must grapple with multiple logins and inconsistent interfaces that impact their productivity. IT must contend with the additional complexity of administering identity and access across a growing portfolio of SaaS apps—potentially exposing organizations to security vulnerabilities through growing complexity.

Seamless integration between Citrix Workspace and the Okta Identity Cloud offers a compelling alternative, providing everything users need to be productive, including:

- Unified identity and access.
- Unified experience across application types.
- Unified access to data and documents.
- Secure, contextual access from any device.

Okta and the Citrix Ready Workspace Security Program

The Citrix Ready Workspace Security Program provides a choice of leading security vendors that complement Citrix solutions, allowing people to securely work anytime, from anywhere, while simplifying how IT manages the environment. The program showcases a partner ecosystem of trusted security vendors.

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\(^1\) Okta "Business @ Work", 2018, www.okta.com/businesses-at-work/2018/
solutions that are tested and verified to work with Citrix Workspace, including key security integrations in:

- Access security
- Identity and access management
- Network and cloud security
- Device and endpoint security
- Data security
- Monitoring and analytics

As a certified Identity and Access Management partner, Okta offers a comprehensive identity platform (Figure 1). The Okta Identity Cloud framework provides identity to all aspects of the business, connecting the right people to the right technologies at the right time, with solutions that include:

- **Single sign-on.** Integration between Citrix Cloud and the Okta Identity Cloud means that single sign-on (SSO) functionality is seamlessly extended from Citrix Workspace to the 6,000+ applications in the Okta Integration Network.

- **Universal directory.** Okta provides a universal directory in the cloud that consolidates legacy directories (e.g., AD, LDAP) to simplify user and group management. With Universal Directory, Citrix Workspace can be delivered to users who are not in the firm's Active Directory.

- **Adaptive multi-factor authentication (MFA).** Okta Adaptive MFA enables IT to provide users with a mix of modern and legacy factors, and by leveraging device and user context, step-up authentication frequency is optimized for both security and end user simplicity.

- **Lifecycle management.** Okta lifecycle management automated user account provisioning and deprovisioning to save IT time, ensure users’ day one access to the services they need to be productive, and increase the overall security posture of the business.

- **API access management.** Okta supports the same role-based access controls and user-centric model for the organizations' own APIs.

![Figure 1. Okta provides a comprehensive workspace identity solution.](image-url)
Citrix Workspace and Okta integration

With every Fortune 500 company using the public cloud in some way, Citrix is committed to a cloud-first mindset and approach. Importantly, Citrix embraces a cloud-agnostic strategy, allowing organizations to choose the public cloud vendors and added-value technology that best suits their needs. The partnership with Okta is especially important, effectively extending Citrix single sign-on to all of the SaaS applications aggregated by Okta.

- **Okta Integration Network.** The Okta Integration Network (OIN)² helps organizations avoid vendor lock-in, offering SSO into 6,000 pre-built application integrations. Advanced integrations unlock new value from existing IT systems. For example, Okta offers user provisioning to over 130 cloud and on-premises systems. An integration wizard enables easy deployment, while continuous monitoring and updates ensure high availability. These integrations help companies modernize IT, build seamless employee and customer experiences, and protect against data breaches.

- **Citrix Cloud.** Citrix Cloud services simplify the delivery and management of Citrix technologies, helping to extend existing on-premises deployments. Organizations can create and deploy secure digital workspaces in hours, not weeks, while placing their sensitive virtual apps, desktops, and data resources on any cloud or hybrid cloud.

Integration between Citrix and Okta is at the cloud level, allowing Citrix Cloud to treat the Okta Identity Cloud as an OpenID Connect (OIDC) Identity Provider (IdP) as shown in Figure 2. The Citrix Identity platform within Citrix Cloud provides a single point of integration for all identity and access management functionality across the entire Citrix product portfolio. This approach allows compliance with industry standard identity protocols fostering considerable flexibility and choice.

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Figure 2. The Citrix Identity Platform treats the Okta Identity Cloud as an OIDC IdP.

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As a result of the integration, Citrix Workspace presents the user with a seamless aggregate experience, offering authentication and token management with identity federation performed by Okta. A typical authentication scenario proceeds as follows:

- An unauthenticated user launches the Citrix Workspace app on the endpoint of their choosing.
- The Citrix Workspace app connects to the Workspace Experience in Citrix Cloud, which requests a new sign-on from the identity microservice.
- Once configured, the identity microservice redirects the authentication request to the Okta authentication page.
- The user enters their credentials, including any additional authentication factors (e.g., biometrics).
- Once authenticated, the Citrix Workspace app requests a list of subscribed resources for the user, including both Citrix Workspace virtual apps and desktops as well as any selected SaaS app integrations provided through Okta.

**Conclusion**

The combination of Citrix Workspace and Okta greatly simplifies the task for the IT department and streamlines the end-user experience. Adopters get access to all of Okta’s application integrations, providing a single point of administration and eliminating unnecessary security holes in the firewall. The Okta Universal Directory allows consolidation for multiple Active Directory instances, and even supports workspace delivery to users who are not listed in the directory infrastructure (e.g., contractors or temporary guests).

Okta’s Lifecycle Management functionality affords considerable automation, allowing the workspace, applications, and accounts to all be automatically provisioned at on-boarding, and de-provisioned in a single step upon termination. Flexible and context-sensitive multi-factor authentication gives organizations a choice as to what factors are required, under what circumstances—allowing security challenges to be increased or relaxed depending on perceived risk or environmental factors. Together, the solution greatly empowers IT to deliver a unified and simplified user experience, even as administrators are called upon to support a diverse and growing number of apps. For more information, visit citrixready.citrix.com/okta/okta.html.

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**Citrix and Okta for hybrid cloud**

Citrix and Okta also support hybrid cloud operation for on-premise applications—e.g., a browser-based app that is located behind a corporate firewall. Existing integration lets Okta connect to downstream apps, bridging across the corporate firewall.
About Okta
Okta is the leading independent provider of identity for the enterprise. The Okta Identity Cloud enables organizations to securely connect the right people to the right technologies at the right time. With over 6,000 pre-built integrations to applications and infrastructure providers, Okta customers can easily and securely use the best technologies for their business. Over 6,100 organizations, including 20th Century Fox, JetBlue, Nordstrom, Slack, Teach for America and Twilio, trust Okta to help protect the identities of their workforces and customers. Learn more at www.okta.com.

About Citrix Ready
The Citrix Ready technology partner program offers testing and verification for joint Digital Workspace, Networking, and Analytics solutions. After a robust testing process, validated partner solutions are listed in the Citrix Ready Marketplace, giving customers and channel partners a simple and effective way to explore and select Citrix Ready verified solutions—increasing confidence while reducing risk. Learn more at citrixready.citrix.com.

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