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Case Study:

Vivint Solar

okta

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Vivint Solar blazes an IT trail with Okta and AWS at the center, achieving 900% ROI

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Overview

Industry

Energy

Company Profile

Vivint Solar is a leading provider of distributed solar energy—electricity generated by a solar energy system installed at a customer's location—to residential customers in the United States. The company finances, designs, installs, monitors, and services solar energy systems for its customers, so they pay little to no money upfront. Over the 20-year term of their contracts, customers receive significant savings relative to utility-generated electricity, and benefit from guaranteed energy prices.

Business Situation

In 2012, Vivint Solar spun off from Vivint Inc. The sister company had built a traditional, on-prem IT model, which quickly proved inadequate for Vivint Solar's rapid growth, according to Mike Hincks, director of IT infrastructure. IT began developing custom solutions on the Amazon Web Services (AWS) platform, but Microsoft's answer to identity management, Active Directory Federation Services

(AD FS), offered little support for Vivint Solar's third-party solutions. It was difficult to integrate those solutions with Microsoft Active Directory (AD), says Hincks. Recognizing the financial and strategic benefits of a cloud-first strategy, company leaders moved the entire organization to Google for Work, and began searching for a cloud-based identity management solution.

Solution

After choosing Okta as its identity management provider, Vivint Solar retired AD FS and moved its password store from AD to Universal Directory. Next, the company deployed Workday as the master storehouse for employee attributes. Okta syncs with Workday in real time to push the data out to apps. To support the remaining AD-dependent apps, the company set up AWS-hosted AD, facilitated by Okta's close integration with AD.

Benefits

- 900%+ ROI

- 4,750 users accessing applications through Okta

- 20 applications connected to Okta

- $500K+ in IT savings, including a 95% reduction in password reset requests, automated provisioning and deprovisioning, group membership rules, streamlined compliance preparation, and reduced AD footprint and licensing costs, according to Hincks

- $500K+ in productivity savings, including reduced password lockouts, mobile access to applications, eliminated outages, faster application deployment and adoption, and improved Day One access for new employees

- $200K+ in increased security, including improved visibility into application activity, Multi-Factor Authentication, Single Sign On, and Automated Deprovisioning

Vivint Solar's Journey

An incubation in traditional IT

Home security company with a traditional, on-prem IT model.

Solutions in the cloud

To meet the demands of its growing professional sales team, the company develops custom IT solutions on the Amazon Web Services platform.

Going cloud-first

Company leaders recognize the financial and strategic benefits of embracing the cloud. The entire company switches to Google for Work, and search begins for a cloud-based identity provider.

900%+ ROI

4,750 users accessing applications through Okta

20 applications connected to Okta

$500K+ in IT savings, including $170,000 in licensing fees

$500K+ in productivity savings

$200K+ in increased security

95% reduction in password reset requests

Demoting Microsoft

Vivint Solar chooses Okta for its industry leadership and reliability. First step: Moving the password store from AD to Universal Directory and retiring AD FS.

Real-time attributes

Next, the company deploys Workday-as-a-master as the source of truth for employee attributes. Okta syncs with Workday in real time and pushes the data out to apps.

AD power without the cost

To support AD-dependent apps, Vivint Solar sets up AWS-hosted AD and reports saving hundreds of thousands of dollars in licensing and infrastructure. Okta integration makes it possible.

Story

A spin-off goes its own way

Vivint Solar falls into an interesting middle ground. With nearly 4,000 employees, it's not exactly a startup. But as a 2012 spin-off of Vivint Inc., the home security company founded in 1999, its leaders are free to think beyond many of the inherent restrictions that enterprises face.

In the beginning, according to Mike Hincks, director of IT infrastructure, the company relied on the sister company's traditional, on-prem data centers and systems. But Vivint Solar soon decided to run their business a little differently.

One change was to adopt a sales model with a year-round strategy and team rather than a seasonal one. As the sales team's demands for dependable and mobile technology grew, the IT team looked to the cloud.

> " Instead of paying $170,000 in Active Directory user CALs, I'm paying a fraction of the cost in subscription services for AD on AWS. Okta makes this huge cost savings possible.
>
> **—Mike Hincks**
> Director of IT Infrastructure, Vivint Solar

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> ## "Okta is our central password store, the central hub of all our automation for onboarding, account creation, and off boarding processes today."

Mike Hincks
Director of IT Infrastructure, Vivint Solar

Company leadership recognized the numerous benefits of adopting cloud technologies. The cloud could help keep Vivint Solar at the forefront of their industry, provide considerable savings in upfront infrastructure costs, management and maintenance and improve security.

Vivint Solar IT began developing cloud tools on Amazon Web Services (AWS) to meet the team's needs. However, according to Hincks, Microsoft's answer to identity management, Active Directory Federation Services (AD FS), offered little support for integrating with these tools. It was difficult to integrate third-party solutions with Microsoft Active Directory (AD). He realized that incorporating non-Microsoft tools would be a tedious and manual process.

From traditional to cloud-first IT

In early 2015, Hincks recalls facing a big Microsoft Enterprise Agreement renewal, Vivint Solar took the plunge, declining continued participation in Vivint's Microsoft Exchange licensing and moving all Vivint Solar employees to Gmail. The die was cast. IT made a conscious decision to choose cloud solutions first, co-location solutions second, and on-prem as a last resort. Soon, the entire company had switched to Google for Work.

That decision was not as simple as it would have been if the company were a true startup. After 15 years of on-prem, people had questions about whether or not they could truly depend on cloud technology. But the switch from capital expenditures to operations expenditures was a revelation.

Traditional companies fully invested in on-prem infrastructure have to weigh that investment when moving to the cloud. Because Vivint Solar owned none of its infrastructure, the financial benefits were overwhelmingly clear.

The security benefits soon became obvious, as well. "We're not going to spend the R&D that [Okta] and Google are on securing data, on adaptive MFA, on ensuring that we're protected," says Hincks. "That puts us at ease."

Because of their experience with AD FS, Hincks says he knew right away that his team would take identity to the cloud. "It was just a matter of comparing the cloud providers at the time." Before choosing Okta, they considered another identity provider, as well as Google's identity and access management solution. The Google solution seemed too new and untested, and the other provider had just gone through some major outages. Okta rose to the top because of its leadership in the industry and its proven reliability.

A provisioning workflow that works

Today, Hincks says Okta has replaced Active Directory as Vivint Solar's password store. The process was remarkably simple. First, IT set everyone up in Universal Directory with Single Sign On for all applications. Then they could retire AD FS and put Workday in place as the system of record for user attributes.

Okta works hand-in-hand with Workday to maintain user attributes and user access across all the technology in Vivint Solar's toolbox, from Salesforce, to ServiceNow, to AirWatch, to Google for Work. "We have real-time sync set up," says Hincks. "Any time you need an attribute change, we can do it in Workday and it real-time syncs down into Okta, which pushes it out to all our systems." The company has set up dynamic groups with group membership rules, provisioned from Workday—"a lifesaver," says Hincks, when it comes to setting up roles, rights, and profiles in Salesforce, for example.

Because some tools, such as AirWatch, don't have the ability to tie into a directory via SAML or OAuth, Active Directory is still a requirement. But rather than keep on-prem AD going, Vivint Solar moved to
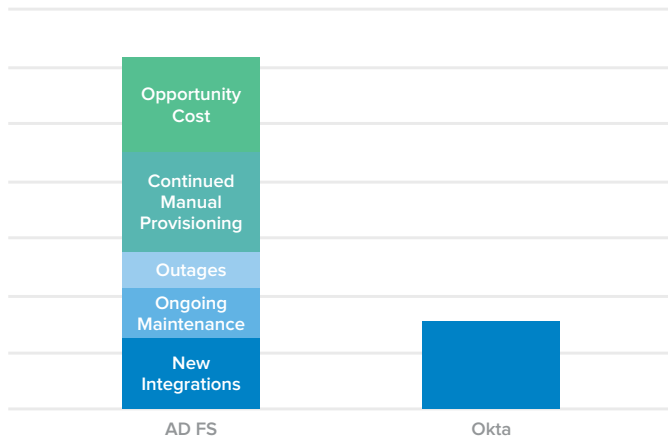
okta

AWS-hosted AD. According to Hincks, that decision saved them $170K in client access licenses and $100K annually in infrastructure costs. Okta's deep integration with AD gives Vivint Solar the power of Microsoft Active Directory without any user administration. "Okta takes care of that for us," says Hincks.
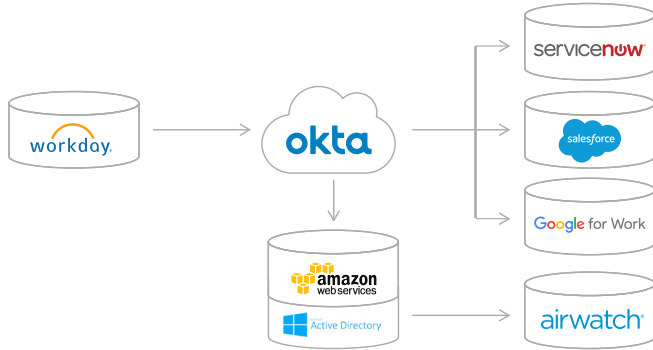
The value of giving up "free" AD FS

In the end, says Hincks, the cost of continuing the on-prem struggle with AD FS proved to be well beyond what Vivint Solar's leadership was willing to spend. When you take everything into account—the cost of lost opportunities as a result of slow integrations, securing and patching on-prem infrastructure, and outages—Hincks estimates that

Okta is three times cheaper than AD FS. In addition, the company has dramatically reduced the manual tasks previously delegated to IT staff, with a 95% reduction in password reset requests, complete automation of new AD accounts, and a streamlined process for audit preparation.

A cloud-first AD strategy

Today, rather than trying to tie their cloud strategy into Microsoft's identity model, Hincks says Vivint Solar has successfully deprecated AD and integrated it into a cloud strategy that works for them. Employees use Okta to access more than 20 applications from the office, from their mobile devices, and through the Internet—without thinking twice. Their ability to choose the best technology for the job means more families and businesses across the U.S. can choose solar energy to power their world.

And that's good for all of us.

	Before Okta	After Okta	Improvement
Password reset incidents	45,700	2,285	95%
Connector maintenance (hours)	200	0	100%
Creating new user AD accounts (hours)	152	0	100%
Lost productivity due to IAM outages (hours)	1143	0	100%
Users protected by MFA	0	4570	100%

"

Companies like Google and Okta are doing more to secure our data than we would be doing if it were on-premises in the datacenter here. That puts us at ease.

—Mike Hincks
Director of IT Infrastructure, Vivint Solar

"Okta gives us the power of Microsoft Active Directory without any user administration."

— **Mike Hincks**
 Director of IT Infrastructure, Vivint Solar

About Okta

Okta is the leading provider of identity and mobility management solutions for the cloud and mobile enterprise. By harnessing the power of the cloud, Okta allows people to access applications on any device at any time, while still enforcing strong security policies. It integrates directly with an organization's existing directories and identity systems, as well as 4,000+ applications. Because Okta runs on an integrated platform, organizations can implement the service quickly at large scale and low total cost. Thousands of customers, including Adobe, Allergan, Chiquita, LinkedIn, and Western Union, trust Okta to help their organizations work faster, boost revenue and stay secure.

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