Whole Foods takes natural next step to protect applications in the cloud

From its origins as a small natural foods grocery store in Austin, Texas, Whole Foods Market (WFM) has grown into a healthy-eating giant with 462 stores on two continents. With an unshakable commitment to sustainable agriculture, Whole Foods seeks out the finest natural and organic foods, maintains strict quality standards, and creates tantalizing merchandising that manages to make grocery shopping fun.

CustomerWhole Foods

Products and ServicesAzure Active Directory Microsoft 365 E3
Security Office 365

IndustryConsumer Goods

Organization Size
Corporate (10,000+ employees)

CountryUnited States



Grow, cost-effectively

Through natural growth and acquisitions, Whole Foods has watched its store and employee count grow by leaps and bounds. Today, WFM is a Fortune 500 company, one of the 30 largest retailers in the US, and one of the top organic grocers in the world. It has annual sales of roughly US\$15 billion, 91,000 employees, and 462 stores across North America and the United Kingdom.

"We have a goal to reach 1,200 stores in the near future, and anything we can do from a strategic perspective to maximize efficiency is worth its weight in gold in retail," explains Will Lamb, Infrastructure Coordinator in the Whole Foods Market IT department.

Toward the goal of reducing operating costs, WFM is embracing software as a service (SaaS) as an alternative to in-house-developed applications. "Over the next five years, we expect the evolution of SaaS offerings to continue to provide alternatives to applications developed in-house," says David Bigham, Chief Technology Officer at Whole Foods Market.

The challenge for WFM was to provide an easy, cost-effective, and secure way for all employees to access both cloud-based and datacenter-based applications. The company's workers complained about having to remember multiple passwords for various business applications, and IT invested a lot of time in dealing with user credential issues such as password resets.

WFM had long used the Active Directory service in the Windows Server operating system to manage identity credentials to allow the company's 20,000 information workers to access on-premises applications. However, when WFM shifted to a SaaS model—and especially when it licensed Workday, a SaaS human resources application, for its information workers and also its 71,000 store workers—its number of identity credentials doubled. "We wanted to link all our identities and provide end-user consistency as we moved to more SaaS-based applications," Lamb says. "Expanding and managing a much larger on-premises infrastructure would have been cost-prohibitive."



Partner for success

Whole Foods decided to build on its existing Active Directory infrastructure and use Microsoft Azure Active Directory Premium to manage employee identities for SaaS applications. Azure Active Directory Premium is part of Microsoft Enterprise Mobility + Security, which also includes products for mobile device management, information protection, and threat prevention.

"We committed to Azure Active Directory Premium because of Microsoft's strong commitment to making sure we were successful," Lamb says. "The Azure Active Directory team listened to our concerns, understood the risks and blockers, and was very responsive."

The Azure Active Directory Customer Success Team provides key customers like Whole Foods with a dedicated program manager and free access to the product team. This team helped WFM overcome deployment challenges, prioritized the development of specific Azure Active Directory features needed by WFM, and helped it deploy the service in a tight time frame.

"Identity is the new firewall of the future. We can't continue to use our old way of controlling application access, because business isn't happening exclusively in our network anymore. With Azure Active Directory Premium, we can stay in control, no matter where our users roam."

Will Lamb: Infrastructure Coordinator, Whole Foods Market

Simplify credential management with a hybrid solution

In just 12 weeks, WFM rolled out Azure Active Directory Premium to all 91,000 employees, who use it to gain single sign-on to more than 30 SaaS applications. "Employees love using Azure Active Directory for sign-on versus having multiple passwords and different accounts to manage," says Lamb.

WFM takes advantage of a range of Azure Active Directory Premium features to simplify identity management work. Using the Azure Active Directory Premium self-service password reset feature, employees can reset passwords on their own—something that previously cost WFM hundreds of thousands of dollars annually. Plus, when users reset their passwords, Azure Active Directory Premium and the company's on-premises Active Directory talk to one anotherto ensure that the change is made in both places (a feature called Azure Active Directory Premium password write-back).

To further simplify identity management, WFM uses Dynamic Group Membership to set rules for employee groups based on user attributes (such as department and country). The IT staff can efficiently specify end-user access to applications by assigning employees to specific groups.

Using the conditional access feature in Azure Active Directory Premium, WFM can instruct Azure Active Directory to check that specific conditions are met before authenticating a user and giving that person access to an application. WFM can block access to all applications outside its corporate network, allow only users in certain groups to have access, and require multifactor authentication (another Azure Active Directory Premium feature) before gaining access.



Reduce support costs by 32 percent

Whole Foods has achieved a 32 percent savings on its support contract by utilizing Azure Active Directory Premium versus having its help-desk staff reset passwords.

It's also reduced its pre-onboarding support for SaaS applications by 50 percent. Instead of working with individual SaaS vendors to enable support for single sign-on and perform extensive testing, the WFM team simply works with Microsoft to ensure that needed applications are pre-integrated with Azure Active Directory.

"We've been working with the Azure Active Directory team to make sure that our applications are in the Azure AD application gallery so that we don't have to maintain them," Lamb says. The Azure AD application gallery is an online store for software applications, developer services, and data that are preconfigured for Azure AD.

Then there's the cost avoidance for expanding its on-premises Active Directory infrastructure to accommodate double the number of employees. "If we'd had to support an on-premises Active Directory infrastructure for 71,000 more employees, it would have been cost-prohibitive—about \$350,00 for servers and labor," Lamb says.

These savings and cost avoidances are critical to WFM to stay cost-effective. "We want to ensure that we're keeping our operating costs as low as possible to focus our budget on more productive areas of the business," says Daniel Birmingham, Identity Solutions Architect at Whole Foods Market. "With the help of Azure Active Directory Premium, I'm managing 10 times the number of SaaS applications with the same size team."

Enhance security in a cloud world

Whole Foods is also enhancing the security of its growing network, something that's paramount as more employees use myriad work and personal devices to access corporate resources that run in many third-party datacenters. "We have better security from a unified identity perspective," Lamb says. "No matter which devices employees use, I can use Azure Active Directory Premium to authenticate their access to our network."

Lamb says he has frankly been surprised at Microsoft's level of commitment to his company's success. "Microsoft is consistently and constantly looking out for us from a security perspective," Lamb says. "We benefit from its experience in securing millions of users across its cloud assets, from Outlook.com to Xbox Live to Office 365 and Azure. Microsoft is a silent partner on our security team."

Extend unified-credentials foundation

With its identity management foundation in place, Whole Foods is devouring more SaaS applications, including Microsoft Office 365, a suite of cloud productivity applications. It's also looking at other components of Microsoft Enterprise Mobility + Security, including Azure Information Protection, which provides document encryption, and Microsoft Intune, for mobile device management.

"Through our partnership with the Azure Active Directory team, we've been able to see what's going on with the entire suite," Lamb says. "Microsoft has a clear vision of where it wants to be and how all these products connect. Azure Active Directory Premium, Intune, and Azure Information Protection provide a complete package."

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