# Azure Active Directory

Microsoft

Maarten Goet

*Microsoft MVP*

inovativ

MVP

RD

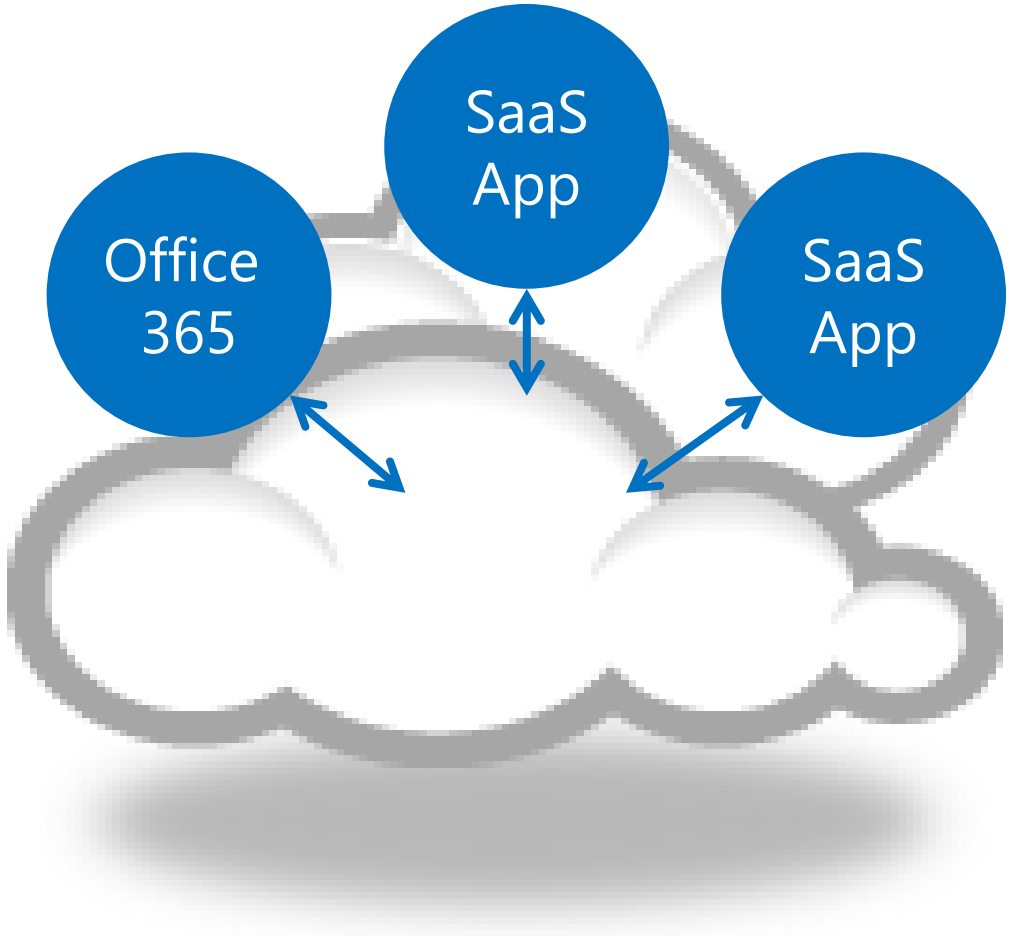
@maarten_goet

# The challenge

Need to support cloud applications, for instance Office 365

Must run at Internet scale and be highly available

Support for Hybrid IT and existing Active Directory investment

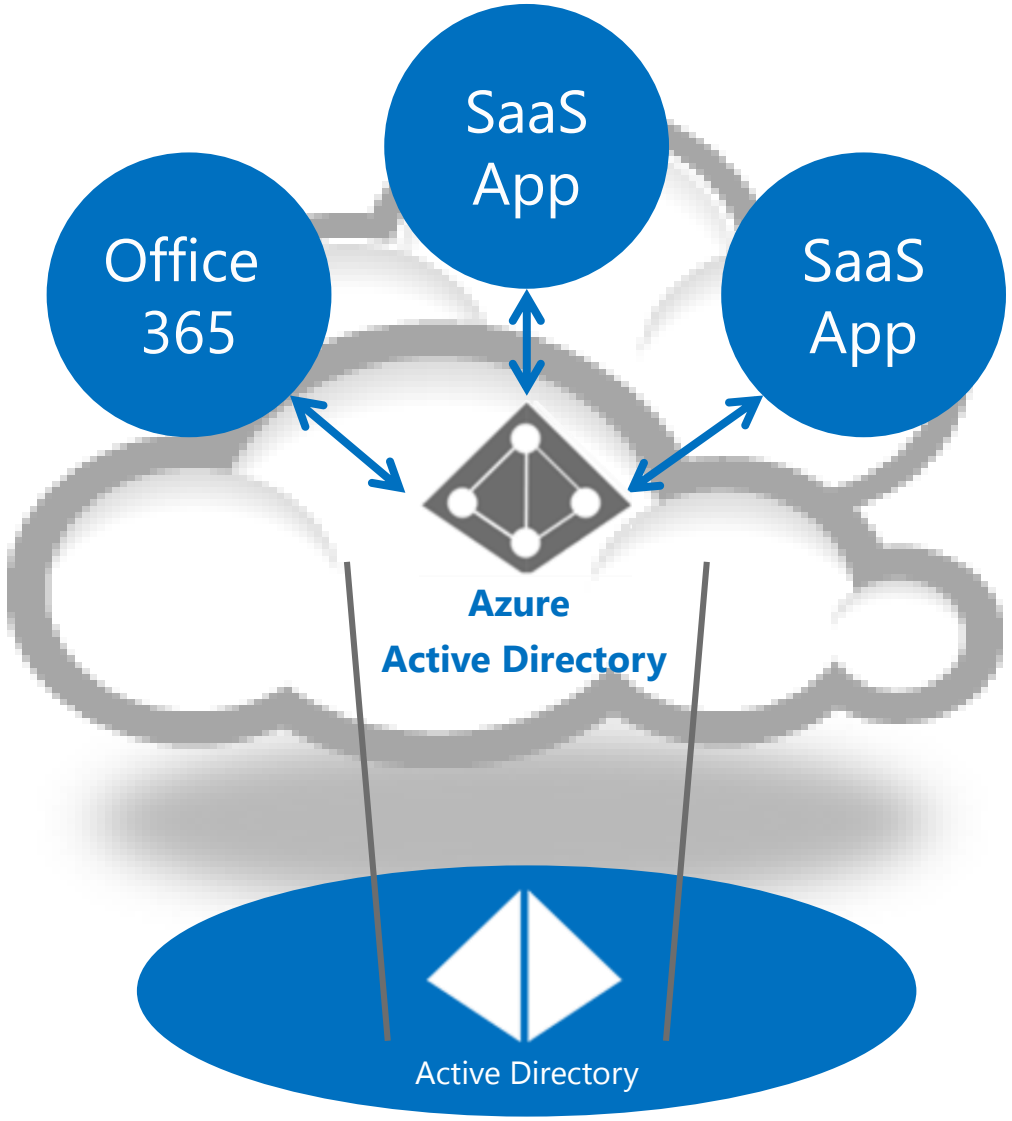


# The solution – Windows Azure Active Directory

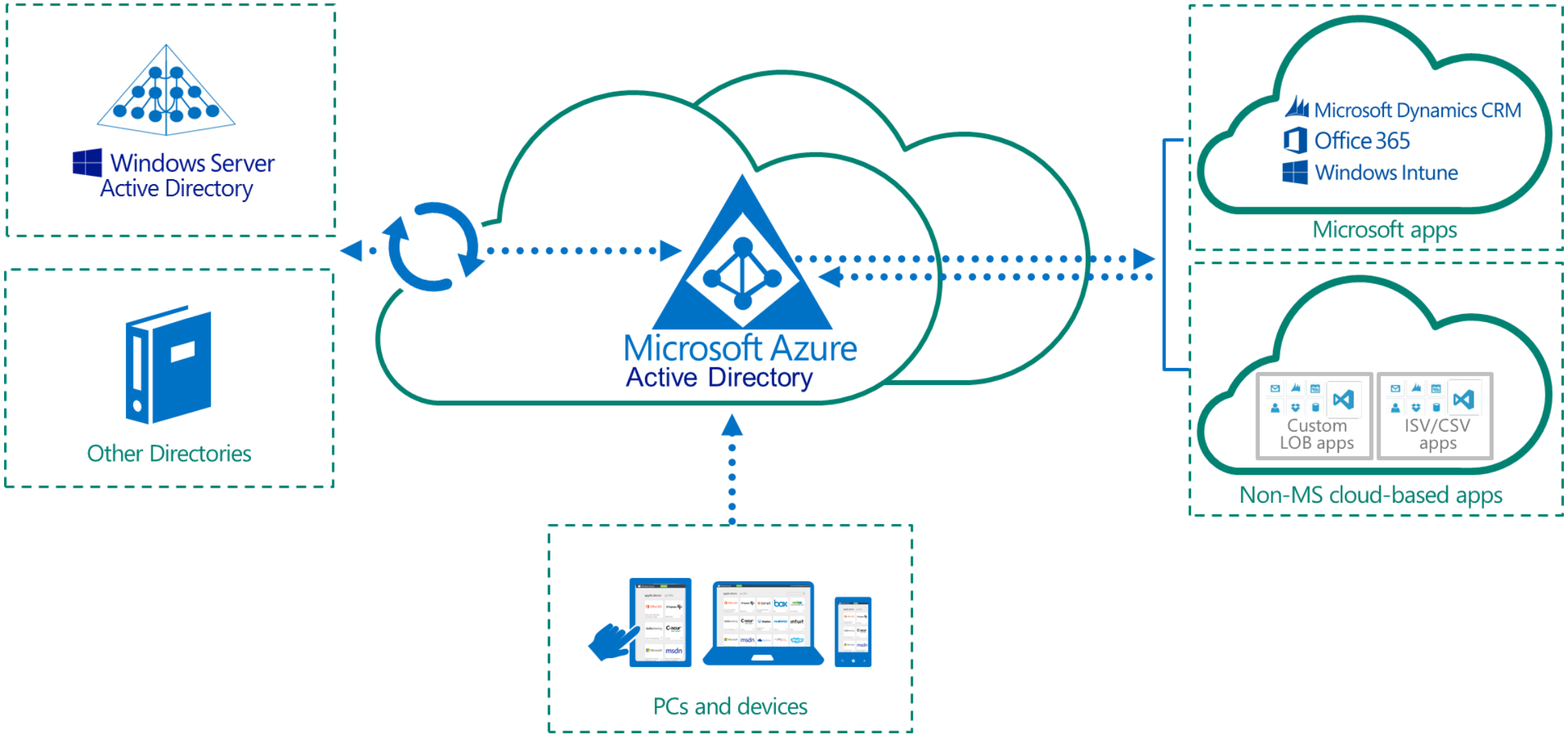
Active Directory revised to operate at Internet-scale multi-tenant directory service, built concurrently with Office 365

Extends Windows Server Active Directory into cloud

Provides cloud-based directory and identity services for organizations without Windows Server AD



# Public identity as control point



# Different editions

| eatures | Azure AD (Free) | Azure AD Basic | AAD Premium |
|---|---|---|---|
| Directory as a Service | Up to 500k Objects | No Object Limit | No Object Limit |
| User/Group Management | Yes | Yes | Yes |
| SSO to pre-integrated SAAS Applications /Custom Apps | 10 apps per user | 10 apps per user | No Limit |
| Identity Synchronization Tool (WSAD Extension, Multi Forest, 3rd party)* | Yes | Yes | Yes |
| User-Based access management/provisioning | Yes | Yes | Yes |
| Self-Service Password Change for cloud users | Yes | Yes | Yes |
| Basic Security Reports | Yes | Yes | Yes |
| Cloud App Discovery (in public preview) | Yes | Yes | Yes |
| Group-based access management/provisioning | | Yes | Yes |
| Self-Service Password Reset for cloud users | | Yes | Yes |
| Company Branding (Logon Pages/Access Panel customization) | | Yes | Yes |
| SLA | | Yes | Yes |
| Identity Synchronization Tool advanced write-back capabilities (in preview) | | | Yes |
| Self-Service Group Management | | | Yes |
| Self-Service Password Reset/Change with on-premises write-back* | | | Yes |
| Advanced Security Reporting (machine learning-based) | | | Yes |
| Advanced Usage Reporting | | | Yes |
| MFA Cloud and On-premises (MFA Server) | | | Yes |
| FIM CAL + FIM Server | | | Yes |

# Azure Active Directory Premium

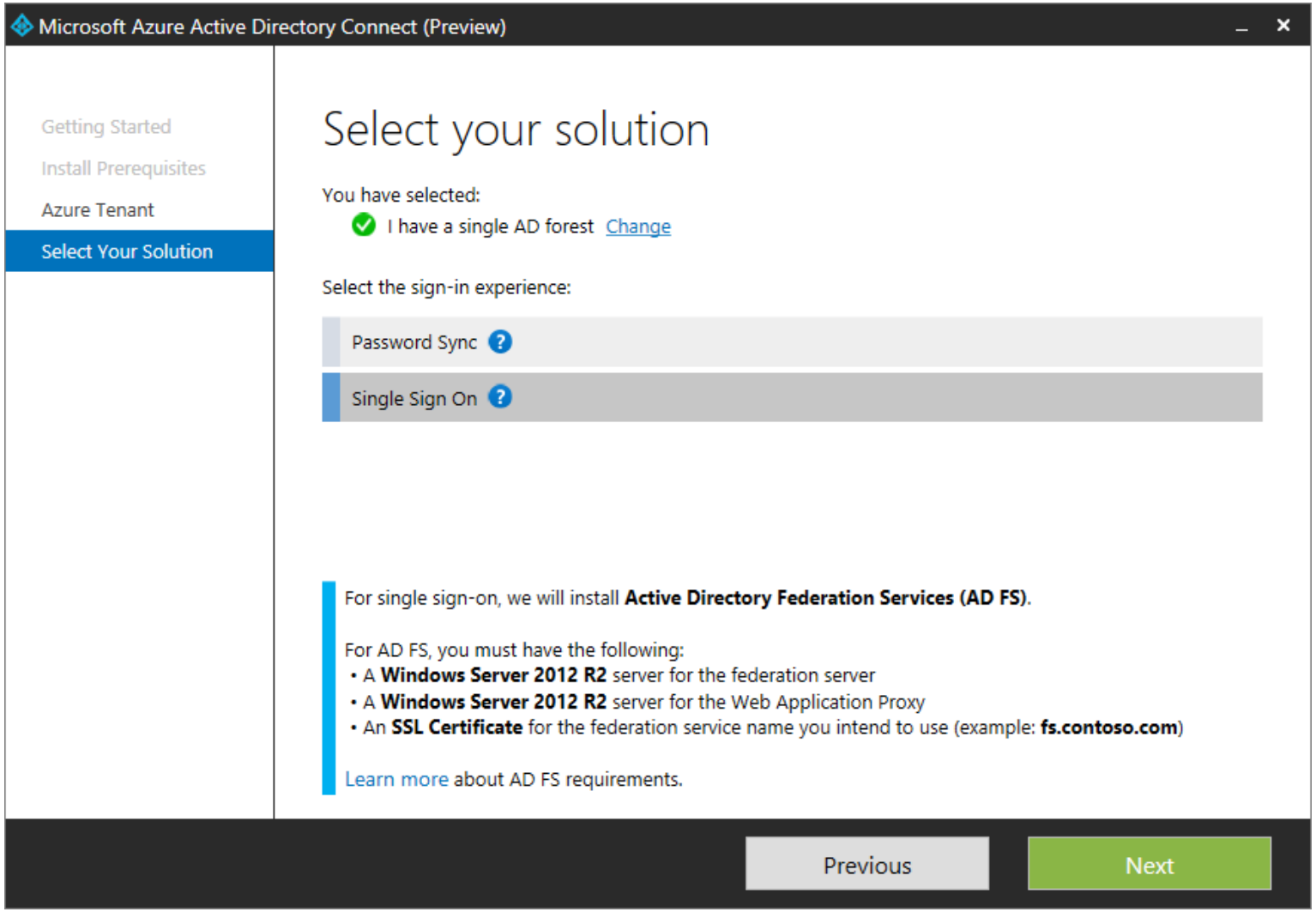
Built on top of the free offering, provides **a robust set** of capabilities to **empower enterprises** with demanding needs on identity and access management

Additionally, Azure AD premium offers:

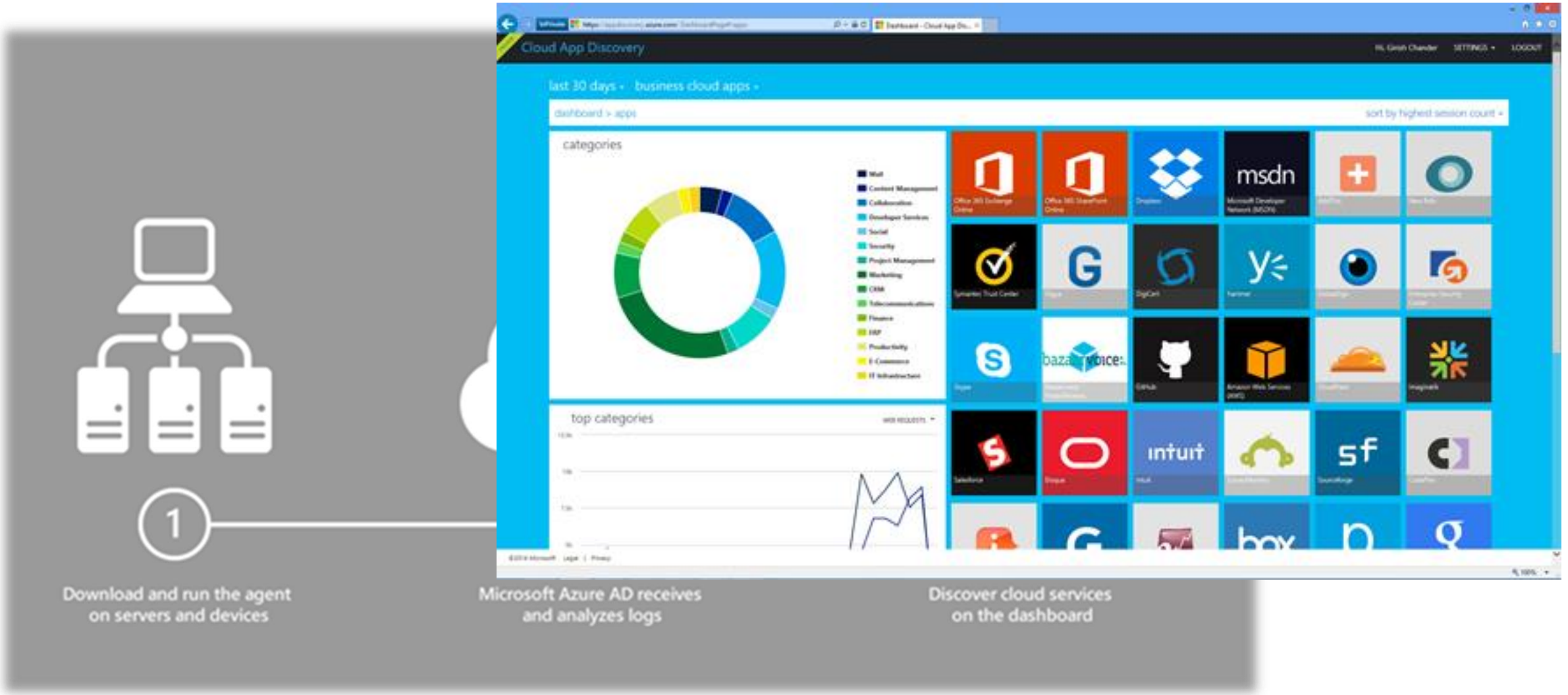
- An Enterprise SLA of **99.9%**

  Usage rights to **Forefront Identity Manager** Server and CALs

# Azure Active Directory Connect



# Azure AD Cloud App Discovery Portal



# Did you know?

There have been 900+ billion authentications through Windows Azure Active Directory worldwide.

*That's nearly 120 authentications for every person on Earth!*

# Multi-factor authentication

# What is multi-factor?

AKA two-factor, 2FA, multi-factor, MFA, strong authentication

**Any two or more of the following factors:**

Something you know (a password or PIN)

Something you have (a phone, creditcard, or h/w token)

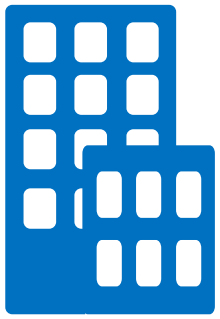
Something you are (a fingerprint, retinal scan, ..)

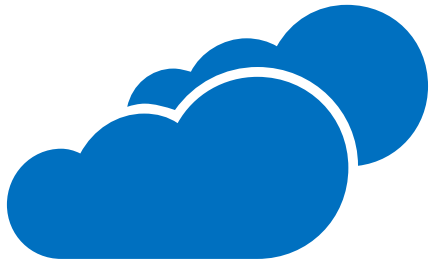
*Stronger when using two different channels (out-of-band)*

# Azure Multi-Factor Authentication

r,
2012
f
to authenticate
employee, customer, and
partner access

Secures applications and
identities in the cloud and
on-premises





# How it works

## Mobile Apps

Push Notification

One-Time Passcode (OTP) Token

## Phone Calls

Phone Call

## Text Messages

Text Message

# Azure MFA versus MFA for Office 365

| | MFA for Office 365/Azure Administrators | Azure Multi-Factor Authentication |
|---|---|---|
| Administrators can Enable/Enforce MFA to end-users | ✓ | ✓ |
| Use Mobile app (online and OTP) as second authentication factor | ✓ | ✓ |
| Use Phone call as second authentication factor | ✓ | ✓ |
| Use SMS as second authentication factor | ✓ | ✓ |
| Application passwords for non-browser clients (e.g. Outlook, Lync) | ✓ | ✓ |
| Default Microsoft greetings during authentication phone calls | ✓ | ✓ |
| Custom greetings during authentication phone calls | | ✓ |
| Fraud alert | | ✓ |
| MFA SDK | | ✓ |
| Security Reports | | ✓ |
| MFA for on-premises applications/ MFA Server. | | ✓ |
| One-Time Bypass | | ✓ |
| Block/Unblock Users | | ✓ |
| Customizable caller ID for authentication phone calls | | ✓ |
| Event Confirmation | | ✓ |

# LAB

## Azure Active Directory & MFA