

ENABLING
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MICROSOFT AZURE AND ORACLE CLOUD PARTNERSHIP

How to get the best of the multi-cloud world and get your internally developed Oracle APEX applications secured and federated under Microsoft Azure Active Directory.

The partnership incentive

There is a question that many CIOs raise during their cloud journey. What should I do with my on-premises Oracle platforms?

They would like to benefit from the scalability, security and flexibility of the leading public cloud providers like AWS or Azure, while knowing that Oracle's licensing scheme will make it difficult to migrate without a licensing cost uplift.

When facing such dilemmas, some will consider a hybrid solution and keep their Oracle platform on premises, some will pay the uplift or go on Oracle Cloud and others might even envision the out of Oracle strategy.

Since June 2019 there is an alternative option that can solve that dilemma in the form of the Azure and Oracle Cloud interoperability partnership.

What does it really mean?

The partnership offers high bandwidth and low latency connectivity between a set of selected Oracle Cloud and Azure regions through the Azure ExpressRoute and Oracle FastConnect peering capabilities. If we focus on Europe, the two regions where this service is currently available are WestEurope / Amsterdam and UKSouth / London

This inter cloud connectivity can go up to 10 Gbps per connection (and you can multiply the connections to go over that limit) and latencies of less than 1.5ms RTT which is typically the level of performance you could expect between two geographically-close customer data centers connected by dedicated fibre.



Additionally, in parallel to this partnership, Oracle made it possible to use Azure Active Directory (Azure AD) to provide identity information to Oracle applications, building on the Azure Single Sign-On (SSO), Multi Factors Authentication (MFA) and Conditional Access, streamlining and securing the access management and users provisioning.

The Interconnect Case Study

At eProseed, as renowned Oracle experts, we have been exposed to projects where our clients wanted to revamp their cloud architecture to fully benefit from that agreement.

The underlying idea was to run the core business applications on Azure while the databases, Oracle ERP or other Oracle platforms would be hosted on Oracle Cloud.

Once the limitations set by the regions availability where integrated in the target cloud architecture, we were able to fully automatise the deployment of all the cloud resources. We ended up with both clouds seamlessly integrated thanks to the interconnect agreement and providing enterprise grade performances with IAS and PAAS solutions from both providers.

For those clients, Azure AD, ADDS and Azure Kubernetes Services are now serving and consuming Oracle Database Cloud Services and Fusion ERP.

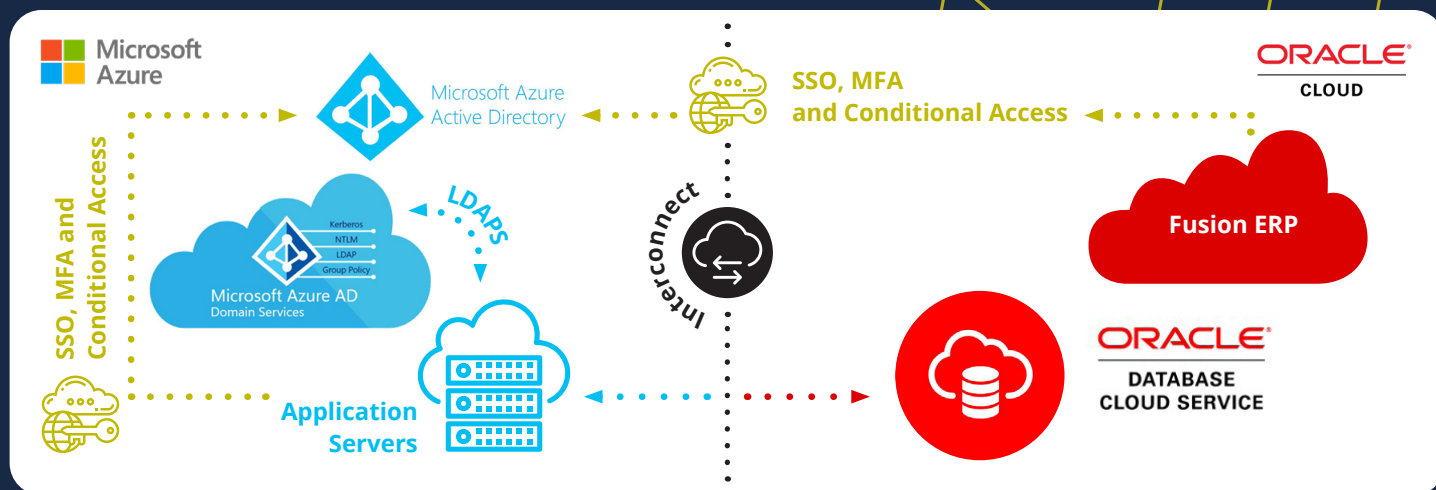
The integration possibilities are endless as both cloud providers' portfolios are complementary.

The Apex SSO Case Study

On top of the multi-cloud approach, as our clients and ourselves are developing solutions using Oracle Application Express (APEX), the low-code development platform from Oracle, we have been asked to centralize all user management and authentication of internally developed applications to Azure AD.

The engineering process was challenging due to lack of references, and some Oracle component's proprietary tweaks. Additionally, switching from native Oracle Unified Directory to Azure Active Directory Domain Services (as LDAP repository to manage in apps authorizations) raised some SSL configuration issues. Helped by our team of ACE directors and experts, we were able to establish a full SSO with MFA to cover all applications into the information system: from Oracle APEX in-house applications to Oracle ERP, completing our already long list of applications (Software AG Aris, Salesforce,...) federated all under Azure SSO.

With a state-of-the-art architecture we now have highly scalable applications secured through Azure SSO, MFA and Conditional Access.



eProseed has been able to combine standard OAuth v2.0, native SAML, Azure ADDS and Azure AD to group all applications under one single umbrella for authentication and access control.

Conclusion

Leveraging the Oracle Cloud and Azure agreement, we managed to optimize cloud architectures by using the best services of each provider.

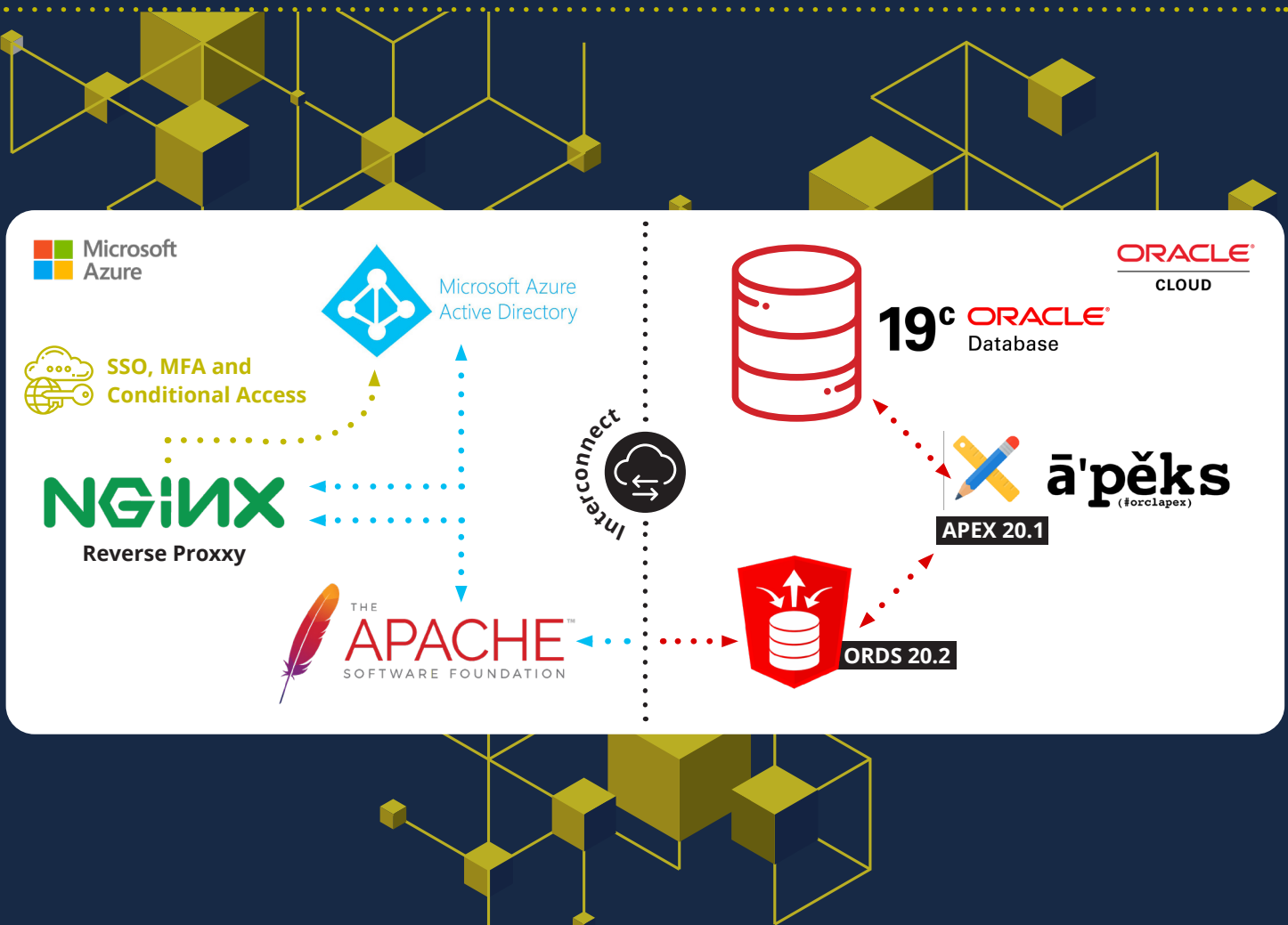
Application Servers, Identity Management, AKS are running on Azure while Oracle databases and platforms benefit from dedicated PaaS offering from Oracle cloud with the advantages of the Oracle-on-Oracle pricing.

We have fully moved the identity management to Azure AD, which means that access to all applications, including Oracle ones are integrated with Azure AD.

This extends to internally developed applications on Oracle APEX, the low code development platform on which custom applications are developed.

With the experience gained in these projects we can further help all our clients to refine their cloud strategy when it comes to Oracle products, optimize their Cloud TCO and fast track their cloud onboarding thanks to the automation toolset we have developed on both platforms.

Additionally we can improve their Oracle APEX based applications, access management and security by integrating them to Azure AD.



About eProseed

eProseed is a leading provider of cutting-edge ICT solutions and services that enables customers to boost their IT flexibility, enhance their business agility and increase their competitiveness.

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