

# CASE STUDY: Extending Domain Controller to Azure

## Customer Profile

Companies face numerous challenges in managing their IT infrastructure in the rapidly evolving technology sector. Covenant Testing Technologies, a leading drilling service company for the Oil & Gas sector, encountered one such challenge: extending their existing Domain Controllers to Azure as a traditional Active Directory Domain. To address this, they strategically partnered with ampio Solutions, a premier provider of innovative IT solutions. This partnership was crucial in overcoming the complex technical hurdles.

## Business Challenge

Covenant Testing Technologies was seeking a way to extend their existing on-premises Domain Controllers to Azure. The primary objective was to ensure that their Active Directory (AD) Domain could leverage the advantages of cloud infrastructure, including enhanced redundancy and disaster recovery capabilities. The challenge was integrating Azure's capabilities seamlessly with their existing on-premises infrastructure while ensuring minimal disruption to their operations.



## Solution Provided by ampiO Solutions

ampiO Solutions devised a comprehensive solution to meet Covenant Testing Technologies' needs. The solution involved several critical steps:

- **Establishing a VPN**

The first step was establishing a Virtual Private Network (VPN) between Azure and the on-premises networks. This secure and encrypted connection ensured that data could be transmitted safely between the on-premises and Azure environments. The VPN setup was essential for maintaining the integrity and security of the data during the transition and ongoing operations.

- **Installing Windows Server 2022 VM**

Next, ampiO Solutions installed a Windows Server 2022 Virtual Machine (VM) in Azure. This VM was configured to function as a Domain Controller, mirroring the existing on-premises Domain Controller. The choice of Windows Server 2022 provided a robust and reliable platform for the Active Directory Domain.

- **Promoting to Domain Controller**

Once the Windows Server 2022 VM was in place, it was promoted to the status of Domain Controller. This promotion involved configuring the VM to host the Active Directory Domain Services (AD DS) and extending the domain to Azure. This step was crucial in ensuring that the Azure VM could perform all the functions of a traditional on-premises Domain Controller.

- **Verification of Replication**

The final step in the solution was to verify all replication processes. ampiO Solutions meticulously checked that all domain objects and DNS records were accurately replicated between the on-premises Domain Controller and the Azure VM Domain Controller. This thorough verification process ensured the Azure VM was a reliable and consistent copy of the on-premises Domain Controller, instilling confidence in the solution's reliability.

## Business Benefits Realized:

The implementation of the Azure VM Domain Controller provided Covenant Testing Technologies with several key benefits:

- **Added Redundancy**  
The Azure VM Domain Controller offered an additional layer of redundancy to the domain. By having an off-site copy of the domain objects and DNS records, Covenant Testing Technologies significantly reduced the risk of data loss during a hardware failure or other disaster at the on-premises location.
- **Enhanced Disaster Recovery**  
By extending the Domain Controller to Azure, Covenant Testing Technologies improved its disaster recovery capabilities. In case of any on-premises issues, the Azure VM could quickly take over, ensuring continuity of operations with minimal downtime.
- **Scalability**  
The Azure environment provided the flexibility and scalability required to accommodate future growth. Covenant Testing Technologies could quickly scale their infrastructure as needed without physical hardware limitations.
- **Security**  
The secure VPN connection and Azure's robust security features ensured that the data remained protected during transmission and storage. This security aspect was critical in maintaining the trust and integrity of Covenant Testing Technologies' IT infrastructure.
- **Cost Efficiency**  
By leveraging Azure's infrastructure, Covenant Testing Technologies reduced the need for additional on-premises hardware and maintenance. This cost efficiency allowed them to allocate resources more effectively to other critical business areas.



## Conclusion

The collaboration between Covenant Testing Technologies and ampiO Solutions exemplifies how strategic IT solutions can address complex challenges and deliver significant benefits. By extending their existing domain controller to Azure, Covenant Testing Technologies enhanced their redundancy, disaster recovery capabilities, and overall IT infrastructure resilience. With ampiO Solutions' expertise and innovative approach, Covenant Testing Technologies is well-positioned to navigate the dynamic landscape of the technology industry.

This case study highlights the critical role that ampiO Solutions plays in providing tailored IT solutions that drive business success. Covenant Testing Technologies' successful extension of their Domain Controller to Azure is a testament to the transformative potential of cloud technology. It also underscores the power of effective partnerships in leveraging this potential for business success.