**Hybrid Environment Implementation Guide for ElevatedCloudWorks.com**

**Introduction:**

This guide provides a comprehensive walkthrough for implementing a hybrid environment for ElevatedCloudWorks.com, a fictitious company created for the purpose of studying Azure integration. The setup includes configuring a Domain Controller (DC), joining machines to the domain, integrating with Azure services such as Azure Active Directory (AD), and implementing Office 365. Each step is meticulously detailed with accompanying screenshots for clarity.

ElevatedCloudWorks.com serves as a mock company specifically designed to simulate real-world scenarios encountered in enterprise-level IT environments. As a mock entity, it enables me to experiment with various Azure integration techniques in a controlled environment without impacting real-world operations. Through the implementation of this hybrid environment, I gain practical insights into managing and optimizing infrastructure, enhancing security, and facilitating collaboration within a simulated organizational framework.

**Step 1: Adding TXT Record to Hosted Domain**

1. **Log in to the Domain Registrar:** Access the domain registrar's website where ElevatedCloudWorks.com is registered.
2. **Access DNS Management:** Navigate to the DNS management section of the registrar's dashboard.
3. **Add a New TXT Record:** Look for options to add a new DNS record and select TXT record type.
4. **Input Verification Details:** Enter the verification details provided by the Azure portal or relevant service. This usually includes a specific TXT record value.
5. **Save Changes and Verify:** After adding the TXT record, save changes. Verify the presence of the TXT record using online DNS lookup tools. It may take some time for DNS changes to propagate.
6. **Confirm Domain Ownership:** Once verified, confirm domain ownership within the Azure portal or relevant service.

**Step 2: Promoting a Local Server to a Domain Controller (DC)**

1. **Launch Windows Server Manager:** Open Windows Server Manager on the local server.
2. **Access "Add Roles and Features":** Navigate to "Manage" and select "Add Roles and Features."
3. **Choose Installation Type:** Select "Role-based or feature-based installation" and choose the local server.
4. **Add Active Directory Domain Services Role:** From the list of roles, select "Active Directory Domain Services." Follow the wizard to install additional features if prompted.
5. **Promote Server to Domain Controller:** After installation completes, a notification will appear. Click "Promote this server to a domain controller." Choose deployment operation, deployment options, and complete necessary configurations.

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

**VM Windows 11 being joined to the domain.**

A screenshot of a computer

Description automatically generated

**Step 3: Azure Integration**

1. **Log in to Azure Portal:** Access the Azure portal using appropriate credentials.
2. **Navigate to Azure Active Directory:** In the Azure portal, navigate to Azure Active Directory to view domain-joined devices and users.

A screenshot of a computer

Description automatically generated

**Step 4: Office 365 Implementation**

1. **Set up Office 365 Services:** Use the Office 365 Admin Center to set up Office 365 services for users within the ElevatedCloudWorks.com domain.

**A screenshot of a computer

Description automatically generated**

**Step 5: On-Premises Updates with Azure AD Connect**

1. **Install Azure AD Connect:** Download and install Azure AD Connect on the on-premises DC01 server.
2. **Configure Synchronization:** Follow the configuration wizard to synchronize on-premises Active Directory with Azure AD.
3. **Update Domain Schema (If Required):** If Azure AD Connect prompts for a domain schema update, perform the update on the on-premises server. Ensure additional security measures like Microsoft Authenticator are employed if necessary.

A screenshot of a computer

Description automatically generated