**Section 5 Video 3: Implementing SSO, Authentication, Authorization, and Access Control with FreeIPA**

**1. Introduction to SSO**

* **Objective:** Understand how to configure Single Sign-On (SSO) and manage authentication and authorization.

**2. Configure Single Sign-On (SSO)**

* **Step 1:** Integrate FreeIPA with an SSO provider using SAML or Kerberos.

ipa config-mod --sso

* **Explanation:** SSO allows users to authenticate once and access multiple systems.

**3. Authentication Configuration**

* **Step 1:** Configure authentication methods.

ipa authconfig --method=kerberos

* **Explanation:** The ipa authconfig command sets the method of authentication used.

**4. Authorization Setup**

* **Step 1:** Define roles and permissions.

ipa role-add rolname --permissions=permission

* **Explanation:** Roles with specific permissions control user access within FreeIPA.

**5. Access Control Configuration**

* **Step 1:** Set up access control rules.

ipa access-add --rules=rule\_name

* **Explanation:** Access control rules manage who can access which resources.

**6. Test Authentication and Authorization**

* **Step 1:** Verify user authentication and role-based access.

ipa user-show username

* **Explanation:** Checking user details and roles ensures proper access is granted.

**7. Troubleshoot Authentication Issues**

* **Step 1:** Review logs for authentication errors.

tail -f /var/log/krb5kdc.log

* **Explanation:** Logs provide insights into authentication problems.