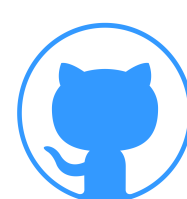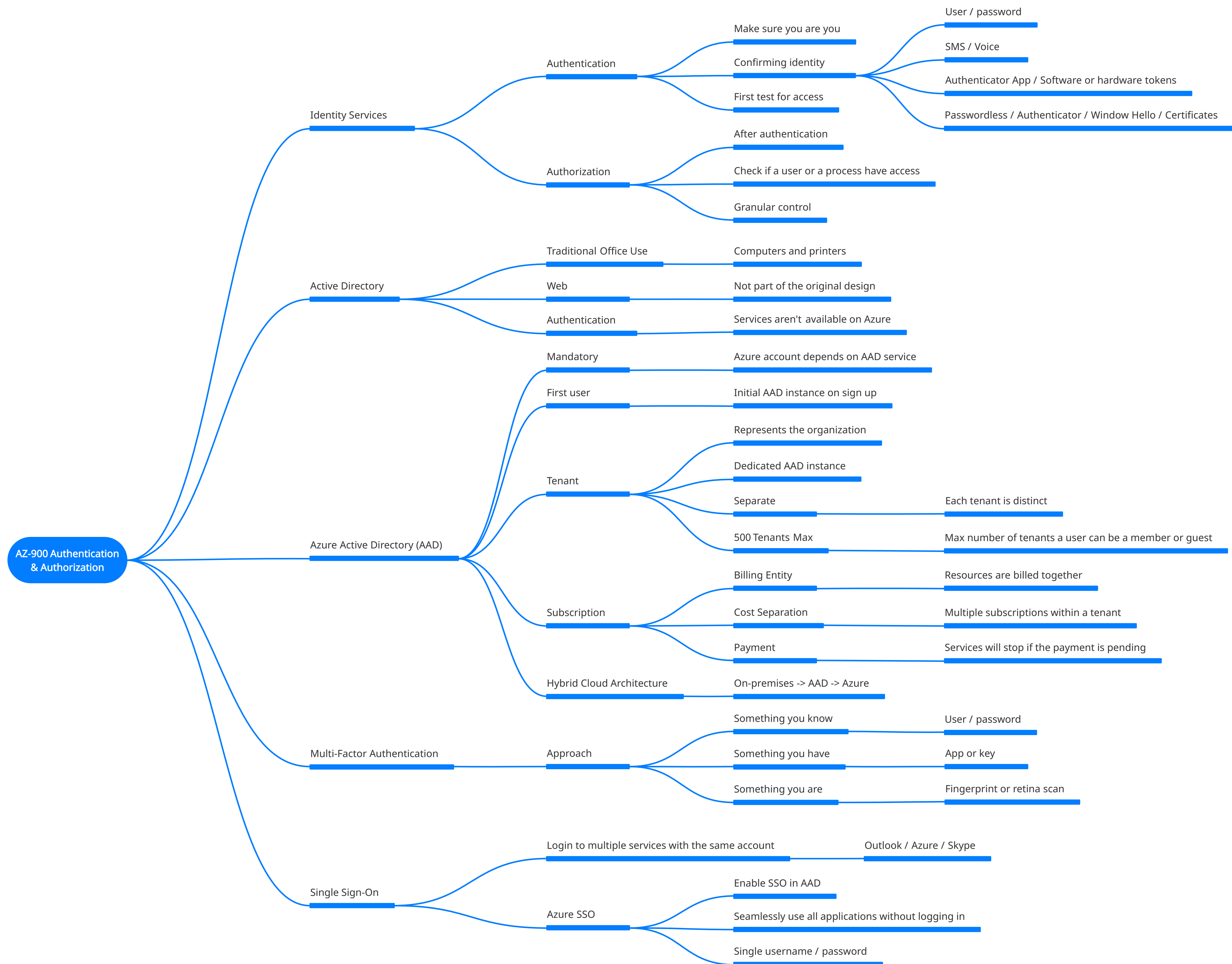# AZ-900 - Microsoft Azure Fundamentals - Authentication & Authorization

AZ-900 Authentication & Authorization

- **Identity Services**
  - **Authentication**
    - Make sure you are you
    - Confirming identity
      - User / password
      - SMS / Voice
      - Authenticator App / Software or hardware tokens
      - Passwordless / Authenticator / Window Hello / Certificates
    - First test for access
  - **Authorization**
    - After authentication
    - Check if a user or a process have access
    - Granular control

- **Active Directory**
  - **Traditional Office Use** — Computers and printers
  - **Web** — Not part of the original design
  - **Authentication** — Services aren't available on Azure

- **Azure Active Directory (AAD)**
  - **Mandatory** — Azure account depends on AAD service
  - **First user** — Initial AAD instance on sign up
  - **Tenant**
    - Represents the organization
    - Dedicated AAD instance
    - Separate — Each tenant is distinct
    - 500 Tenants Max — Max number of tenants a user can be a member or guest
  - **Subscription**
    - Billing Entity — Resources are billed together
    - Cost Separation — Multiple subscriptions within a tenant
    - Payment — Services will stop if the payment is pending
  - **Hybrid Cloud Architecture** — On-premises -> AAD -> Azure

- **Multi-Factor Authentication**
  - **Approach**
    - Something you know — User / password
    - Something you have — App or key
    - Something you are — Fingerprint or retina scan

- **Single Sign-On**
  - Login to multiple services with the same account — Outlook / Azure / Skype
  - **Azure SSO**
    - Enable SSO in AAD
    - Seamlessly use all applications without logging in
    - Single username / password