Directory Services

- What is Directory Services

- LDAP

- Servers

- 389 DS Demo

- Authentication against DS

- LDAP Queries

- Permissions

- Integration with other Applications/Software

What is Directory Services

- A directory service is a database for storing and maintaining information about users and resources.

- Directory Services are often referred to as directories, user stores, Identity Stores, or LDAP Directory
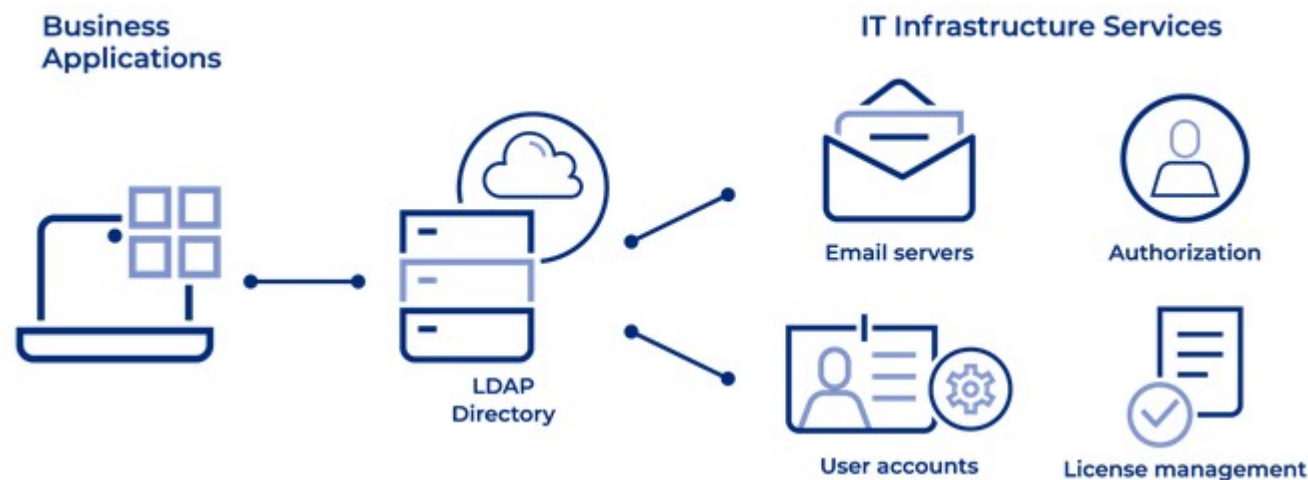
What is Directory Services..

- Network and system administrators use directory services to onboard users, manage access privileges and monitor and control access to applications and infrastructure resources.

What is Directory Services..

- Directory services are fundamental elements of an Identity Security strategy.

- Many identity and access management (IAM) solutions use directory services in conjunction with single sign-on (SSO), multi-factor authentication (MFA) or identity lifecycle management functionality.

What is LDAP

- LDAP is a protocol.

- It's a form of language that allows users to find the information they need very quickly.

- It is vender-neutral, so it can be used with a variety of different directory programs.
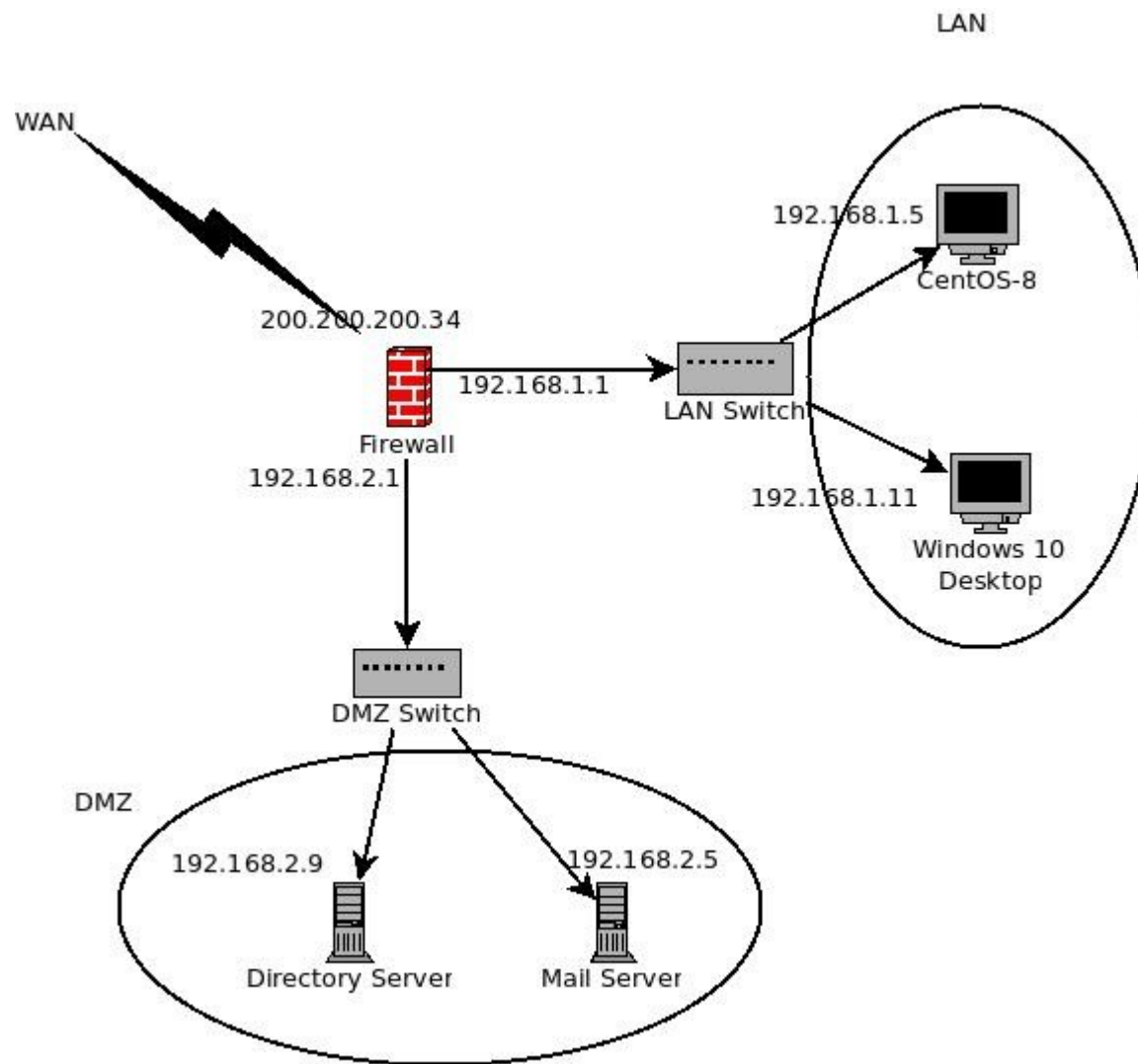

Business Applications

IT Infrastructure Services

LDAP Directory

Email servers

Authorization

User accounts

License management

Directory Servers

- https://en.wikipedia.org/wiki/List_of_LDAP_software

389 Directory Server

- An a LDAP server developed by Red Hat as part of the community-supported Fedora Project.

- The name "389" derives from the port number used by LDAP.

- Supports many operating systems, including Fedora, Red Hat Enterprise Linux, Debian, Solaris, and HP-UX 11i.

- Source code is generally available under the GNU General Public License version 3

- Red Hat markets a commercial version of the project as **Red Hat Directory Server** as part of support contracts for RHEL.

Demo Network

Demo

Authentication against DS

- LDAP authentication is the process of verifying usernames and passwords stored in a directory service, like OpenLDAP or Microsoft Active Directory.

- Administrators can create user accounts within a directory and grant them permissions.

LDAP Queries

- ldapsearch -h localhost -D "cn=Directory Manager" -W

- ldapsearch -h localhost -D "cn=Directory Manager" -W "nn(uid=hari)"

- ldapadd -x -D "cn=Directory Manager" -W -f users.ldif

- ldapamodify ....

- ldapdelete ....

Permissions

- Can be provided brach wise....(in certain products)

- PFSense

- CMS'

- Mozilla Thunderbird

- Apache

Questions