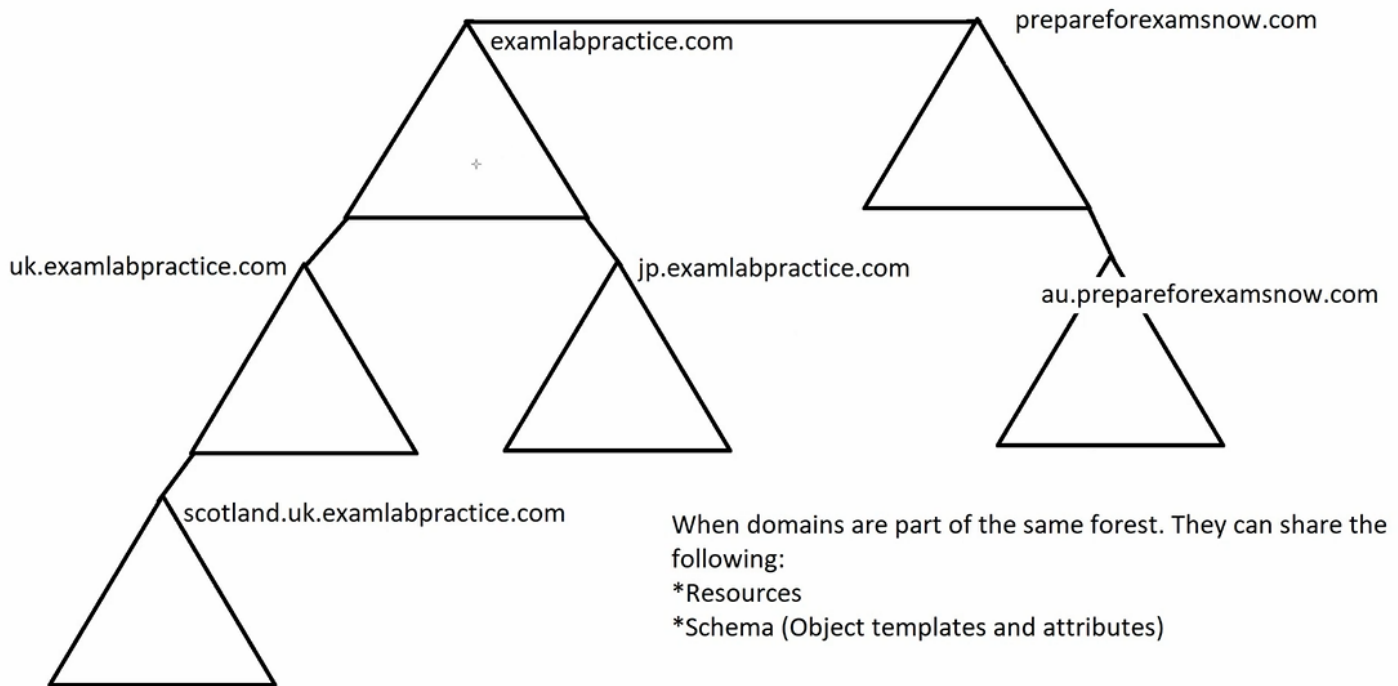


Domains, Trees, Forests

Domains, Trees & Forests



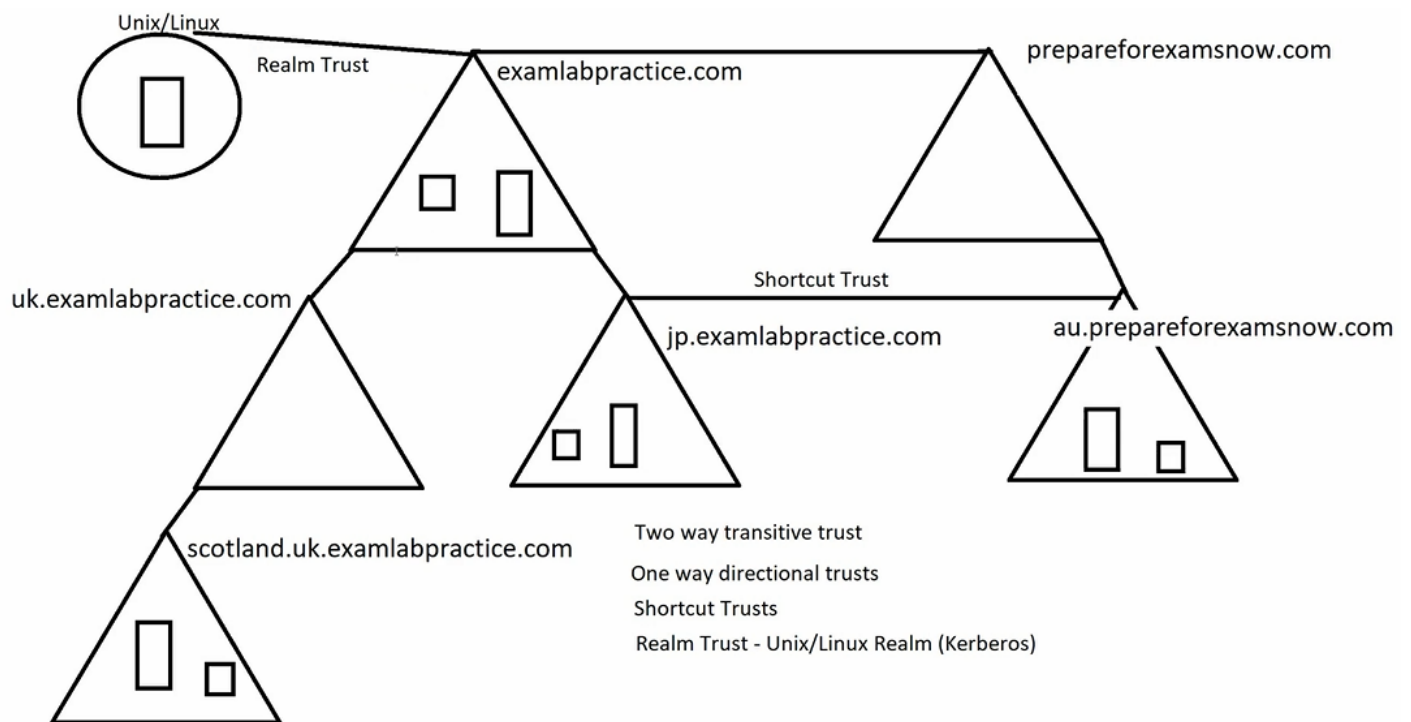
- Every **Domain** is part of a **Tree**, is part of a **Forest** (even a single domain)
- Domains which share the parent domain name belong to the same tree
- **Trust Relationships** connect domains
- **Forest Root (Root Domain)** - First domain, cannot change
 - Enterprise admins control entire forest
 - Domain admins control their domain
- Trees later merged via forest trust will share resources but not schema
- Global catalogue is replicated across the whole forest

Trusts

- Trust Relationships can have a
 - Two-way transitive trust (follows through to sub-domains)
 - One-way directional trust
 - Shortcut trust (can be either of the above) (two or one way)
 - Forest trust - between two forests (unlike below) (two or one way)
 - Realm trust - Unix/Linux Realm (Kerberos)

Setup via Active Directory Domains and Trusts

Configure DNS to ensure they can communicate (conditional forwarders)



KCC

- Knowledge consistency checker - all D.Cs have it
- Creates a circular ring of trust between D.Cs in close proximity (latency) within the same site (intrasite replication)
- Updates based on D.C. Availability, checks every 15 minutes

Separation of sites frees up bandwidth.

KCC Creates new rings within each site and appoints one D.C. as a Bridge Head (every 180 minutes) (can be altered) (Inter-Site Replication)

Site Links

- Redundant site links are setup, each have a cost (default 100)
- Adjust cost based on primary and secondary links
- IP Addresses are set such that devices interact with their local D.C. (Subnets)
- Site link bridging can be setup based on a hierarchy (default all on)
- May wish to disable site link bridging where a site has multiple sub-sites

Configured and Managed via AD DS > Sites

SITE = an object that represents a physical geographical location. Used to help control replication amongst your DCs

SITE LINK = Represent the connection between your sites

Intra-Site Replication

Inter-Site Replication
-180 minutes (3 hours)



KCC

Site Link Bridging

NewYork-2mb-Birm
Cost: 100

2mbps

Birmingham

Birm-512k-Dallas

Cost: 400

512kbps

192.168.3.0/24

192.168.2.0/24

Dallas-5mb-NewYork
Cost: 25

5mbps

Dallas

New York

DC

BH

DC

DC

DC

192.168.1.0/24

DC

BH

DC

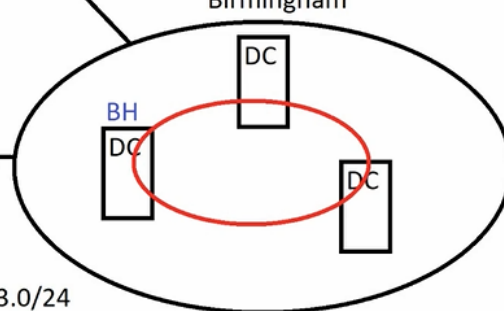
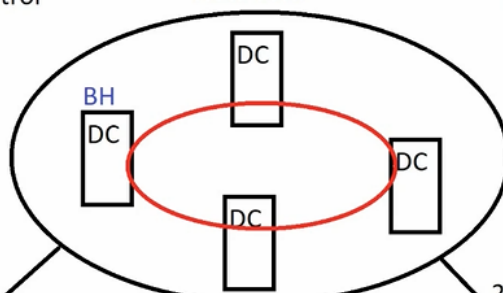
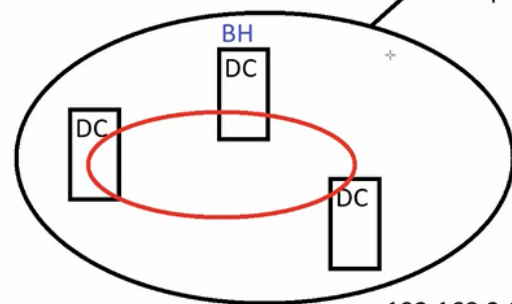
DC

BH

DC

DC

DC



Revision #6

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