

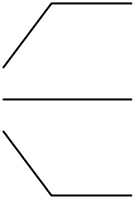
Distributed Naming & DNS

Net Layer → e.g. IP addresses

- 1) Convenience
- 2) Modularity

DNS → Host names → Records

Goals

- 1) Scalability 
 - “Tel. book model”
 - Central server
 - Distrib. database

- 2) Reliability

Lookups

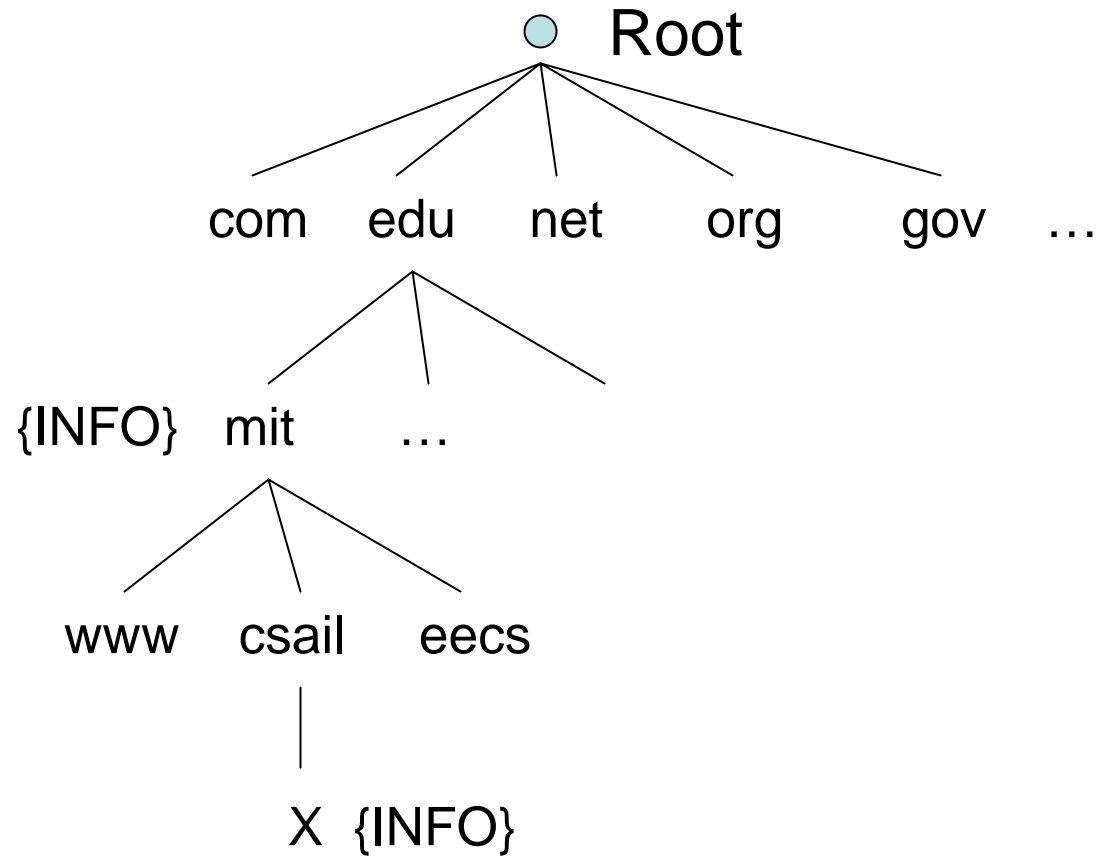
Name → Record : `dns_resolve(dnsname)`

- App-specified
- DNS config

Search

Namespace

- Hierarchical
- Structured



Delegation

- Root
- Top-Level Domain (TLD)
- Domains anywhere in tree

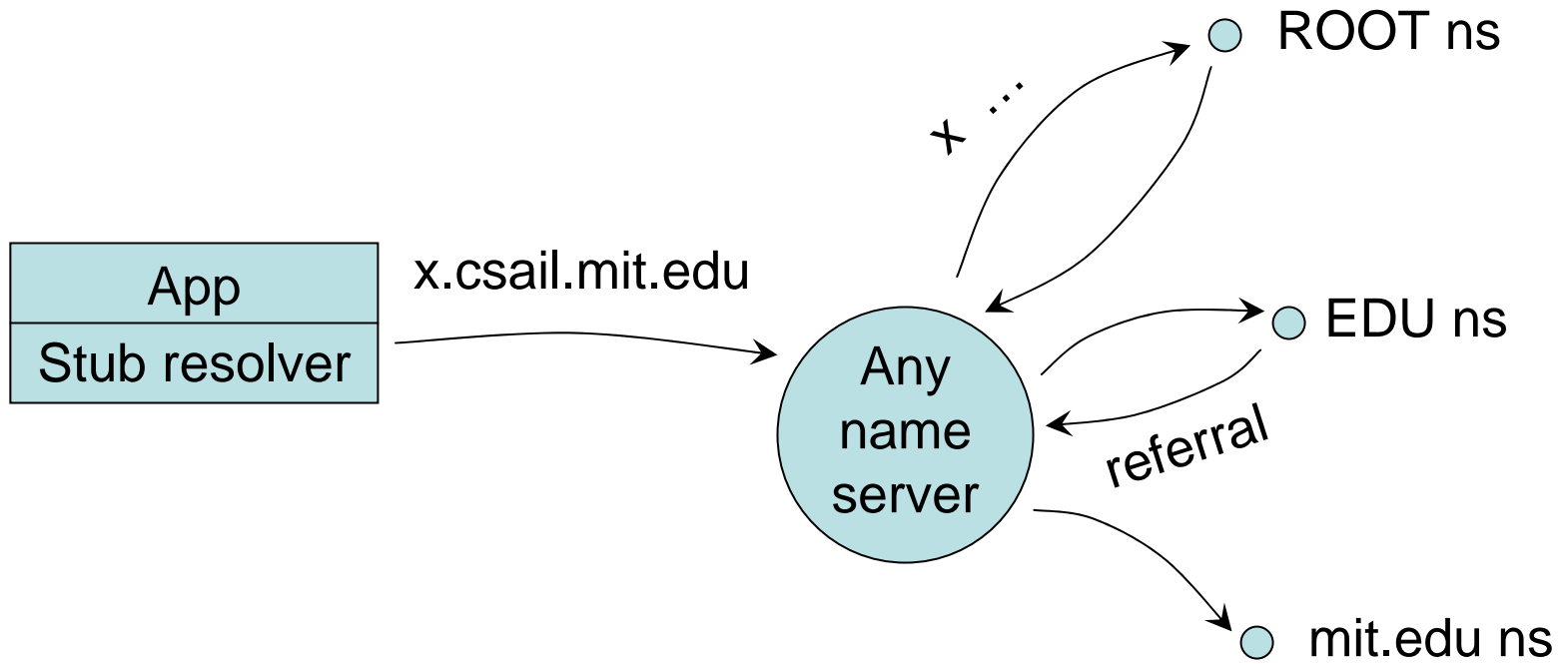
Records

A : Address

MX :

CNAME : “Synonym”

NS : Name server record



- 1) Bootstrap
 - Root identity
 - Stub?
 - DHCP
 - Manual
- 2) Performance

Caching

- Recursive resolution
- Expiration times

