Lecture 5: Application models and DNS

Reading 2.5 (DNS) and 2.6 (Peer-to-Peer)
Standalone applications
MS Word, Notepad

Client-server application
subversion
ATMs
ftp

distributed application
- clients, several servers collaborating
email
IRC
web
usenet NNTP newsgroups

peer-to-peer applications
- clients interacting directly
bittorrent
skype
TOR - The Onion Router
gnutella - limewire for example
Napster

- Not very robust
- Single point of failure

Diagram:
- Client A
- Client B
- Directory server
- queen
- jackson
- A has it
- Fetch queen

Notes:
- A client needs to ask another client if they have the requested queen.
- If the requested queen is not available, the query propagates to other clients.
GNUTELLA

queen

queen? (tell A)

queen?

queen?

queen?

queen?

queen?

A

rendezvous server
Distributed Hash Tables: Chord