

Course: Computer and Communication Networks

*Topic: Client Server Model and
Domain Name System (DNS)*

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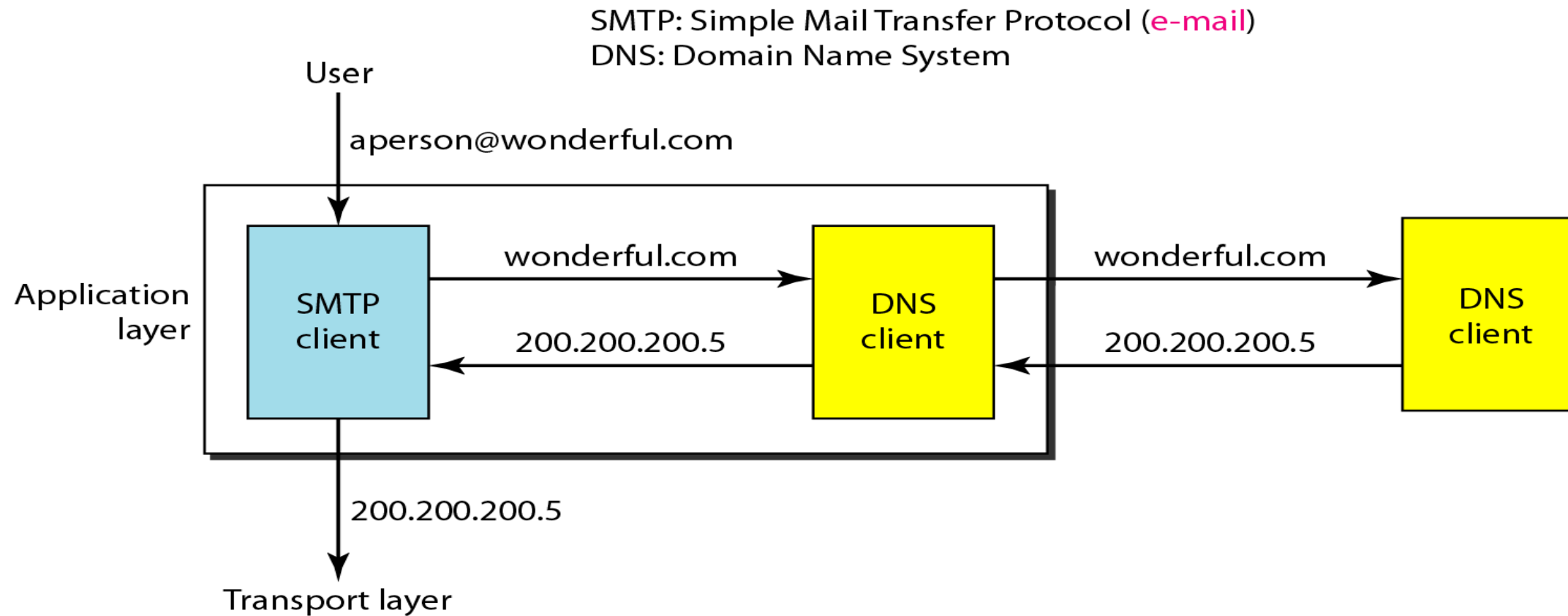
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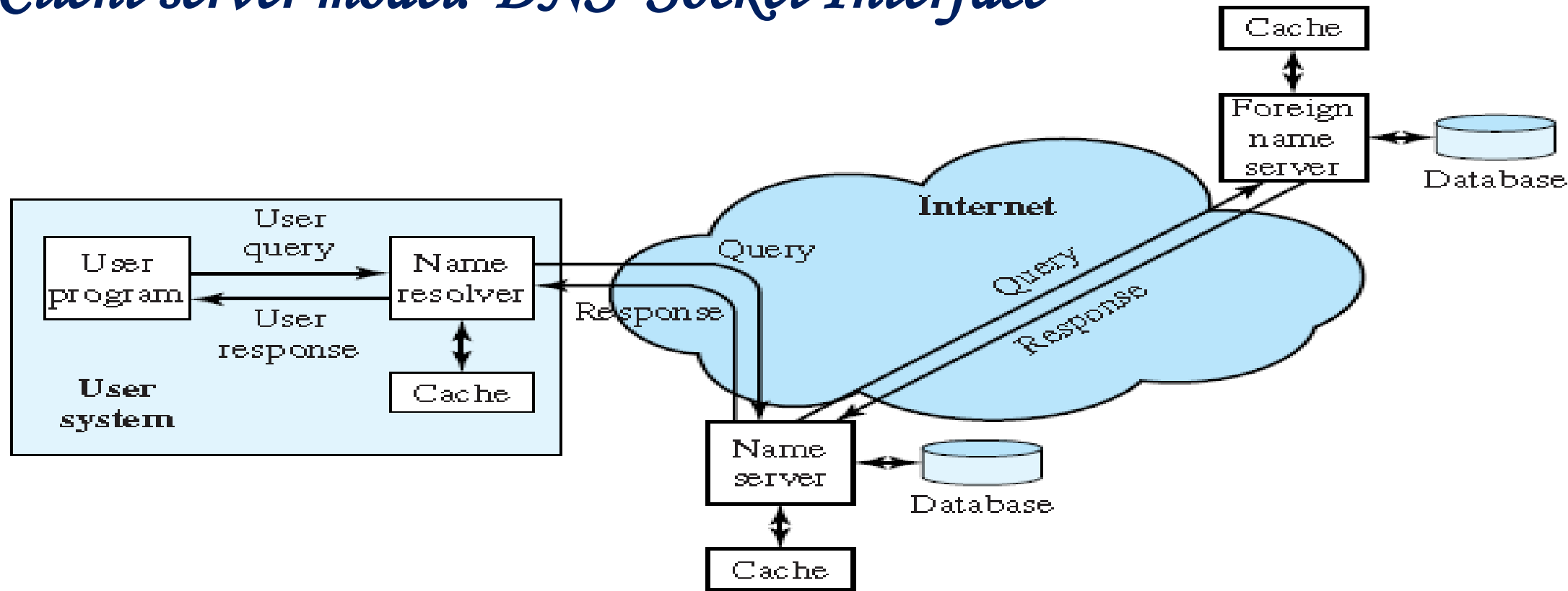


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Client server model: DNS service



Client server model: DNS Socket Interface



1. A user program **requests an IP address for a domain name**.
2. A resolver module in the **local host or local ISP formulates a query for a local name server in the same domain as the resolver**.
3. The local name server checks to see if the name is in its **local database or cache**, and, if so, returns the **IP address to the requestor**. Otherwise, the name server queries other available name servers, starting down from the **root of the DNS tree or as high up the tree as possible**.
4. When a response is received at the local name server, **it stores the name/address mapping** in its local cache and may maintain this entry for the amount of time specified in the time to live field of the retrieved RR.
5. The user program is given **the IP address or an error message**.