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CORBA Basics

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In this segment

CORBA Overview

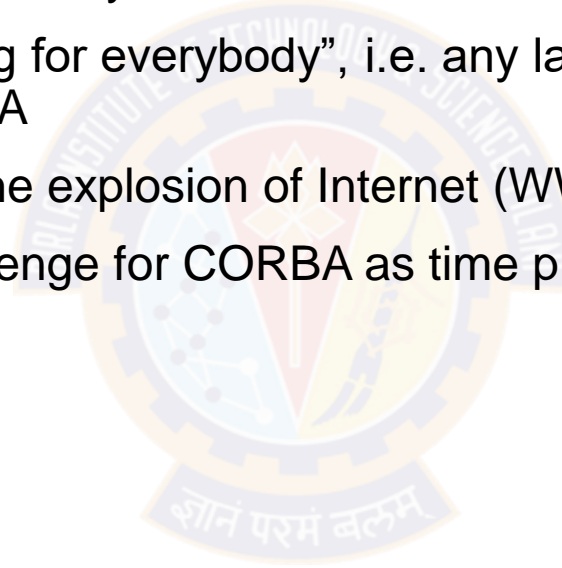
- CORBA Introduction
- CORBA Basics



CORBA

Evolution and History

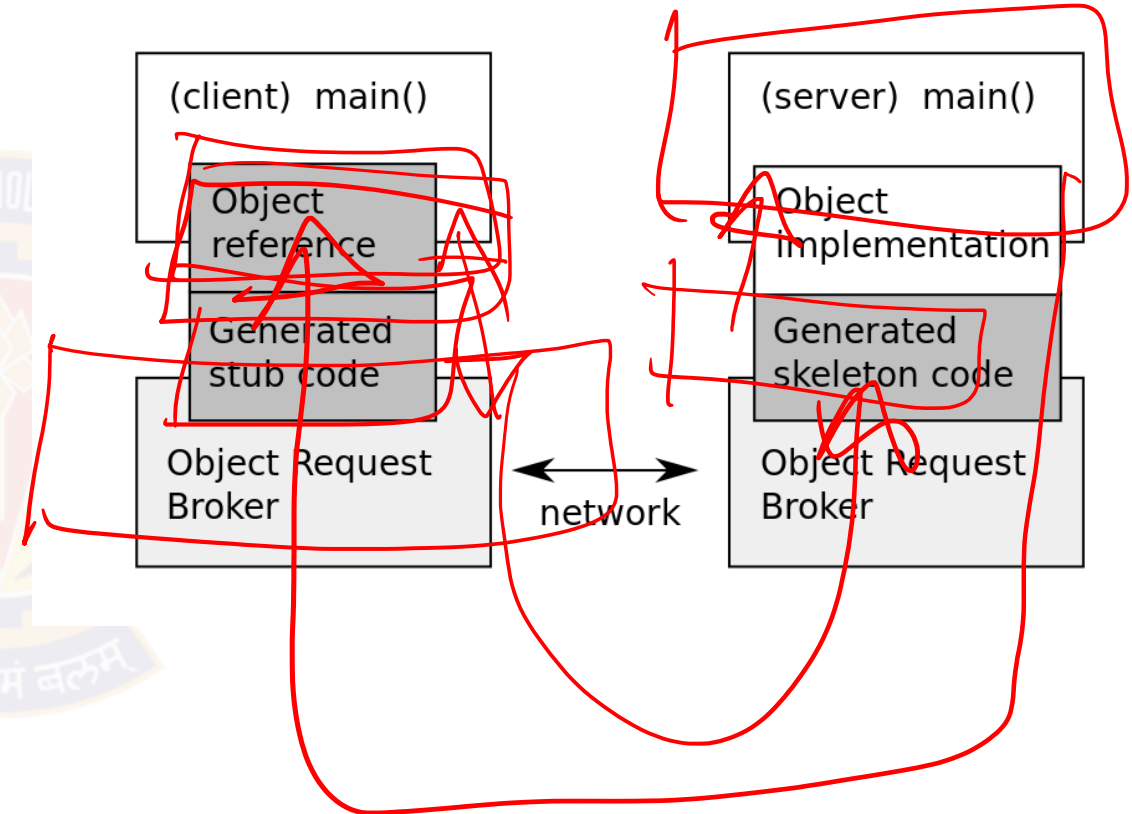
- Introduced in 1990s by Object Management Group (OMG)
- Popular initially and available even today in some installations
- Introduced the notion of “everything for everybody”, i.e. any language/platform talking to any other language/platform via CORBA
- Gradually declined in 2000s with the explosion of Internet (WWW) and advent of firewalls
- Hacking of ports was a major challenge for CORBA as time progressed



CORBA

Overview

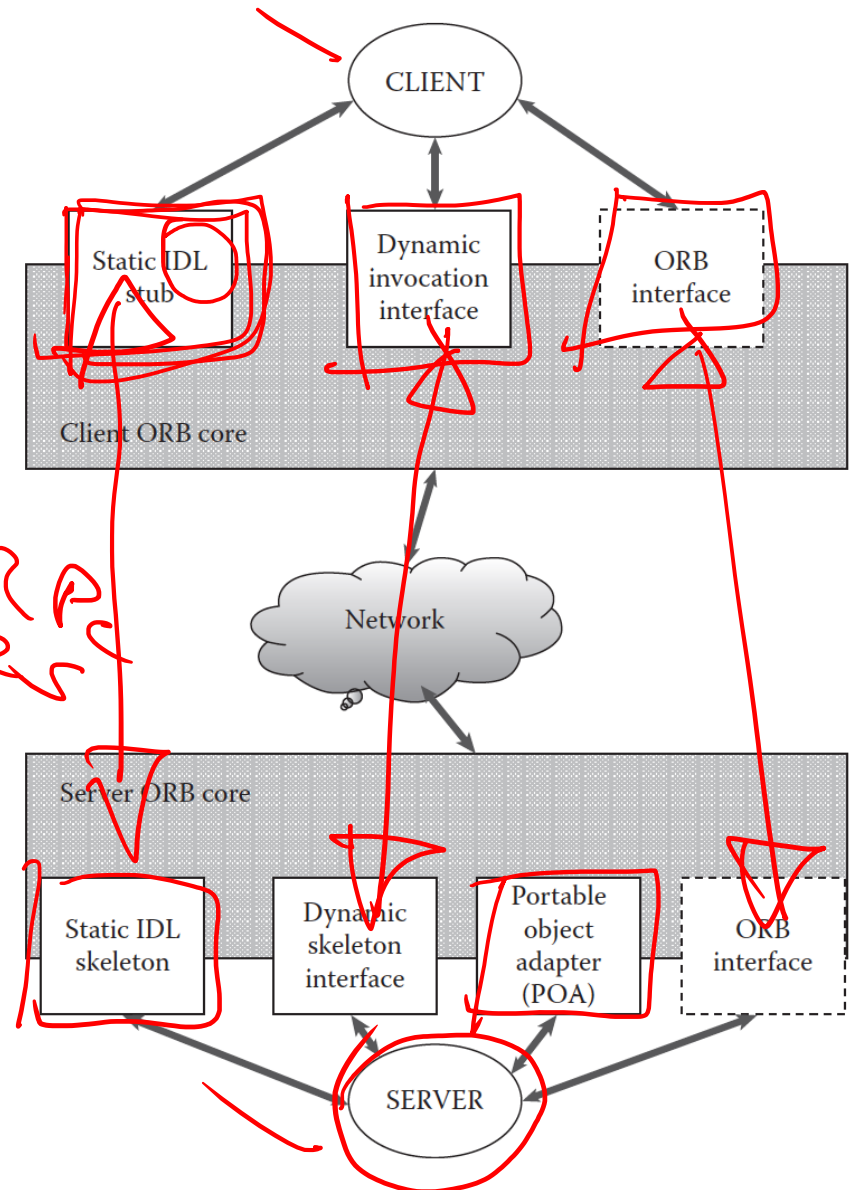
- Primarily client-server oriented
- Can be seen as RPC on remotely located objects (due to distributed OO nature)
- Uses General Inter-Orb Protocol (on TCP/IP) to communicate and transfer data between client and server
- Client side proxy object
 - Represents remote object in local client space
 - Handles data serialization/encoding and communication with network using ORB



CORBA

Architecture

- CORBA supports static and dynamic interfaces using Interface Description language IDL
 - Static interface defined at compile time using IDL compiler
 - Dynamic interface that defines invocation at runtime
- IDL stub is client side implementation that calls CORBA library API for client operation
- IDL skeleton is on server side, that uses CORBA library API for server side operation
- POA (Portable Object Adapter) performs server-side functions, similar to EJB containers, Web servers etc.



Before 1998 -> BOA
After 1998 -> POA



Thank You!

In our next session:
Interface Description Language (IDL)