

## Work group meeting no. 1 – CORBA modules and interfaces

### IN5040 (Distributed systems)

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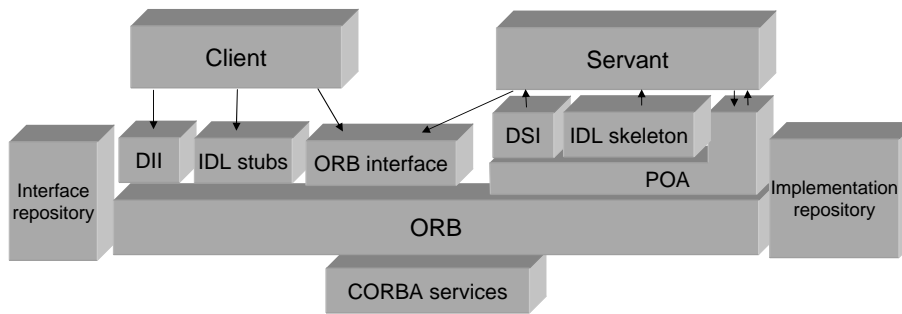
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## Agenda

- CORBA modules (as specified by OMG)
- Functionality provided.
- Modules relevant for group work and assignment.



## CORBA modules



## Functionality provided by modules (1)

- **Client**; A program/application initiating request on a remote object.
- **Servant**; Object implementation of a service, which include business operations and data.
- **ORB (Object Request Broker)**; Receives requests from client, find object implementation of a service, prepare the object implementation and transfer requests/responses.
- **CORBA services**; Independent services that extend the CORBA middleware with general purpose functionality, like: transaction control, security, directory and trading.
- **ORB interface**; Interface directly down to the ORB. Used by clients and servants for CORBA specific functions and features.
- **IDL stubs**; Interface description when implemented by client provides a static invocation interface to the servant, which marshals parameters to the message type.
- **IDL skeleton**; Interface description when implemented by servant provides a interface for receiving demarshaled parameters and invocations.

## Functionality provided by modules (2)

- **POA (Portable Object Adaptor);** An object adaptor that can be used across different ORB implementations. Thus, making the servant portable. It is responsible for: activating/deactivating object implementations (servants), operation invocation, etc.
- **DII (Dynamic invocation interface);** The interface support invocations on object implementation introduced in run-time.
- **DSI (Dynamic skeleton interface);** Support allow ORB to deliver requests to servants introduced in run-time.
- **Interface repository;** A common facility used to store and make IDL available to clients in run-time. If object implementation is introduce after design-time, the client must use the DII to invoke the operations given in the IDL.
- **Implementation repository;** A common facility used to store and make servants available to the server. It can also hold other objects of relevance to the ORB.

## Modules relevant for assignment

- All servants are introduced at design time. Thus, DII, DSI and the repositories are not required.
- The object reference to the servant (called IOR –interoperable object reference) is made available to the client:
  1. File
  2. CORBA Naming service

Relevant modules:

