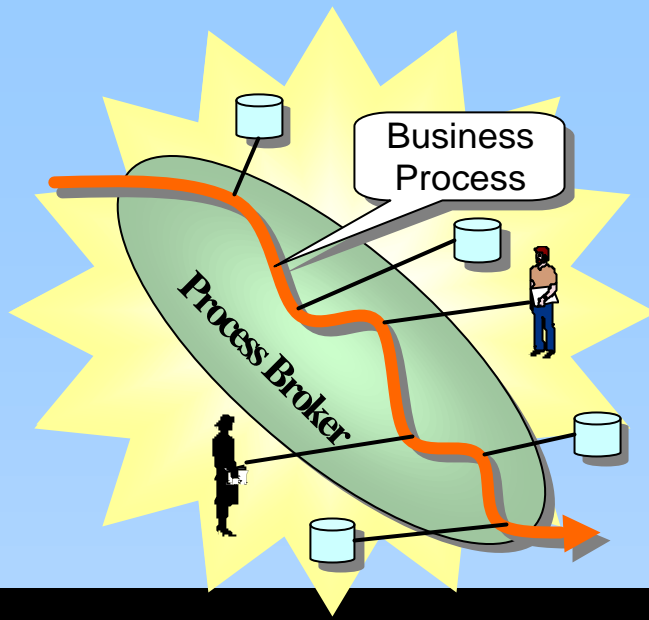
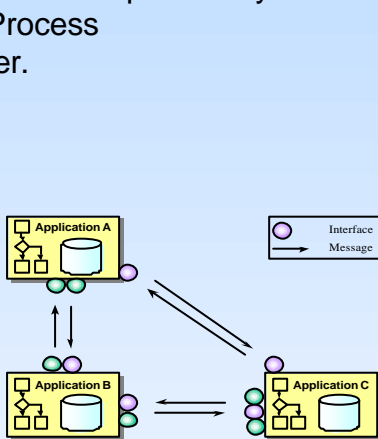


HOW TO MANAGE THE COMPLEXITY

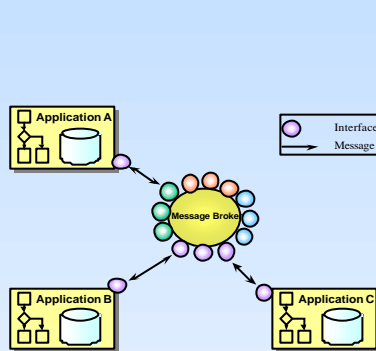


One important means for reducing complexity in systems integration is to use middleware architectures such as EJB, CORBA or Microsoft COM+. The goal is to facilitate the implementation of information interchange by removing technical details. However, in order to visualize sequencing and timing of application interaction, several layers of abstraction are needed.

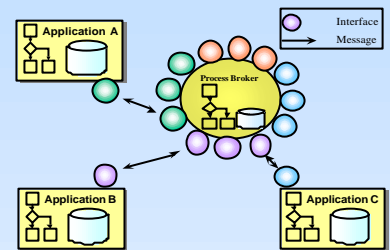
This is accomplished by the Process Broker.



POINT-TO-POINT. One approach for integrating applications is the point-to-point solution where every application is directly connected to every other application. This solution could work when there is only a few applications, but as the number of applications increases, the number of connections quickly becomes overwhelming.



MESSAGE BROKER. The Message Broker technology reduces the point-to-point complexity. The main idea is to reduce the number of interfaces and thereby make it easier to support them. If one of the applications changes format, only one connection has to be changed: the one to the Message Broker. However, the Message Broker lacks a central mechanism handling and visualizing the whole, namely the flow of processes.



BUSINESS PROCESS BROKER. The Process Broker is an extension of the Message Broker. In addition to handling format conversions, the Process Broker also encapsulates the process logic for connecting applications. When all process logic resides in one place, it becomes possible to study, analyze, and change the processes using a graphical interface. This visualization reduces the complexity and enables different categories of people to take part in the design of processes.

PROCESS BROKER

THE RAILCAR TRACKING EXAMPLE. The railcar tracking example illustrates how a Process Broker works. The Process Broker integrates several vendor applications and position report applications. If a railcar does not follow its plan, for example is late or takes the wrong route, the Process Broker sends a status message to an operator. It is easy for the operator to monitor the railcar through a graphical interface.

