

## 1.3 History of COM/DCOM

1). One of the 1<sup>st</sup> method of inter-process communication in window was DDE (Dynamically Data Exchange) which allow sending and receiving message is so called conversion between Application.

### 2). DDE

This technology was the base of OLE which dynamically data exchange .(This technology was the base of OLE which dynamically link one s/w to another) i.e. the leading technology introduced with win'3.0 .

3). Text conversion or window messages could not to be Flexible as to allow sharing application feature in a Robust (strong) and Extensible.

4). OLE- 1991, OLE 1.0 was basically a method of handling compound component.

A compound document is a storing data in a Multiple formats such as:- Text , Graphics , Video and Sound Line.

5). By the time, version 3.1 of window was released . COM was created a new foundation and OLE change to OLE 2.

6). In 1993, Microsoft release the OLE2 which encode more than just compound document.

It supported an entire architecture of object-base services. If COM was the part of object-base services.

The foundation of OLE2 is named as COM.

7). COM – consist of set of standard that define interface for s/w . These standards helps the s/w manufacturer to add unique s/w function into re-usable s/w component.

8). At the same time, DCOM as a separate entity provided by Microsoft Propitary for the communication of s/w component across n/w computer and was called N/W OLE extend.

## 1.4 Benefits / Importance of COM/DCOM

1). For vendor COM, gives a single module with other application and distribution computing environment.

- 2).It allows the developer to built and distribute application more easily.
- 3).It gives greater range of s/w choices with better productivity of users.
- 4).It allow two or more program application or component or component to co-operate with one another even they are retain in different times by different vendor.

## **1.5 Component of COM**

COM allows creation of independent and re-usable component. COM component attract with each other on the basis of client-server model. Based on this COM component can be categorized into 2(two) parts:

### **1).Client Component.**

### **2).Server Component.**

### **1).Client Component.**

Client Component uses the services and functionality provided by other component.

### **2).Server Component.**

Server Component is a COM component that exposes it's functionality and services so they can use it.

### ***Example:-***

Consider a situation where a user insert into a word document. Here, bitmap image exposing it's functionality to the word document is acting as a server document was the word document. Using the functionality of Bitmap image is acting as a client.

Think about other situation where a user want to insert a power-point slide into an Excel Worksheet. Here, the power-point slide is acting as a server as a Excel Worksheet is accessing the functionality of the power-point application.