**Types of Databases**

There are two generic database architectures: cent ralized and dist ributed. The basic

differences between the two architectures are:

**Centralized**

**Distributed**

Refer to Figure 1-12.

· All data is located at a single *sit e*

· Allows for greater cont rol over

accessing and updat ing data

· Vulnerable to failure as they depend

on the availability of resources at the

cent ral site

***Example:*** *The account informat ion of*

*cust omers is st ored in a part icular*

*branch of f ice of a bank. This informat ion*

*must be shared across all Aut omat ed*

*Teller Machines (ATM), so t hat cust omers*

*can wit hdraw money f rom t heir*

*account s. Inst ead of st oring t he cust omer*

*informat ion in every ATM machine it can*

*be st ored at a common place (t he branch*

*of f ice of t he bank) and shared over a*

*network.*

Refer to Figure 1-13.

· The database is stored on several

computers - from personal computers

up to mainframe systems

· Computers in a dist ributed system

communicate with one another

through various communicat ion

media, such as high speed networks or

telephone lines

· Dist ributed databases are

geographically separated and

managed

· Dist ributed databases are separately

administered

· Dist ributed databases have a slower

interconnect ion

***Example:*** *Consider t he bank syst em. The*

*bank’ s head of f ice is locat ed at Chicago*

*and t he branch of f ices are at Melbourne*

*and Tokyo. The bank dat abase is*

*dist ributed across t he branch of f ices.*

*The branch of f ices are connect ed*

*t hrough a network*