# DATA CENTER CONCEPTS & REQUIREMENTS

## Data Center Infrastructure

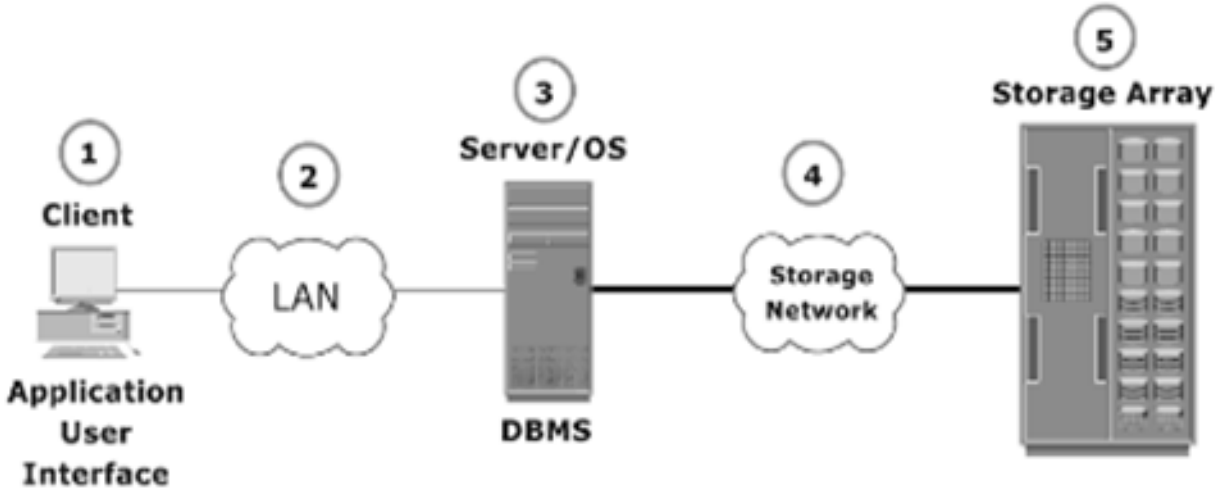
Data Center supports following things:

1. Process your business transaction.
2. Host your website.
3. Process and store your intellectual property.
4. Maintain your financial records.
5. Route your e-mails.

## Core Elements

1. The main purpose of a data centre is running the application that handle the core business and operational data of the organization
2. For basic functionality of data center five elements are required. they are as follows:-
3. Application:-it is computer program which provides the logic for computing operations.
4. Database:-DBMS provides a structured way to store data in logically organized tables that are interrelated .it optimizes the operations.
5. Server and OS:-a computing platform that runs applications and databases.
6. Network:-used for communication between client and server.
7. Storage Array:-it store data permanently.

The order processing system in the communications network which provides information necessary for the management of the interface between logistics and the other functional areas of the firm as well as within logistics. For example, the primary input to the sales forecast is historical sales data captured from the order processing system.




Steps:

1. Customer places an order through an application user interface of the order processing application software located on the client software.
2. Client is connected to server through LAN and accesses the DBMS for processing.
3. Server is installed with operating system and required database, using this database server read and write data base on storage array.
4. Storage network provides communication link between the server and the storage array.
5. Storage array receive command from the server and it perform necessary operation to store the data on physical disks.

The Key Characteristics are as follows:

1. Availability
2. Security
3. Scalability
4. Performance

5. Data integrity
6. Capacity

1. Availability: All data center elements must be available for 24 * 7.if it is not available then it is negative impact on business.

2. Security: Your data center must be secure and resilient in order to keep your enterprise running at maximum productivity, protecting your profitability, productivity and reputation.

3. Scalability: Data center operations should be able to allocate additional processing capabilities or storage on demand.

4. Performance: Data center have become an integral part of the backbone infrastructure for information technology. Putting a value on the performance of applications and their importance to your business is a necessary step in the process of deciding where and what to focus on for improvement.

5. Data integrity: Integrity is the assurance that information can only be accessed or modified by those authorized to do so. Data integrity can also be threatened by environment hazards, such as heat, dust, and electrical surges.

6. Capacity: Capacity planning in the data center is about making sure that you have the computing power and physical space to handle your business present and future needs.

Related posts:

1. Information Life Cycle Management (ILM)
2. Storage infrastructure

3. Integrated VS Modular Array
4. Data proliferation
5. Data categorization
6. Component architecture of intelligent disk subsystem
7. Intelligent disk subsystems overview
8. Mapping n operations
9. Storage system architecture
10. RAID
11. Hot spare
12. SAN security
13. JBOD
14. Elements of DAS,NAS,CAS,SAS
15. Limitations of DAS
16. Cloud vocabulary
17. NAS security
18. Management of DAS,NAS,CAS,SAN
19. FC Connectivity
20. Memory virtualization
21. Network virtualization
22. Server information storage and management
23. ISM Architectural Framework