

## Assignment No. 4

Q. What are file structures of distributed systems? Explain SNF and HDFS in detail.

→ - Most distributed file systems are built following a traditional client-server architecture.

- It is used to describe how files are structured, named, accessed, used, protected and implemented. Files are used for personal or permanent use of information on secondary storage.

- SNF (Sun Network File System)

SNF uses remote file source service model. SNF also supports upload/download model in which client downloads the file for operation and then uploads it to user so that uploaded file can be used by other clients.

- HDFS

• It is Hadoop distributed file system.

• It is one of the most reliable file systems that handles extremely large files with streaming data access patterns and it runs on commodity hardware.

• HDFS follows master-slave architecture where there is a master node and many slave nodes. These nodes typically form an HDFS cluster.



Q. What is resource management of stream adaption related to distributed multimedia systems?

→ System should provide a certain QoS level to all application for this purpose, system need to have efficient resource and it also needs to make these resources available to an application as per its need.

- Resource scheduling:

Resource are allocated to process according to their priority.

- Fair scheduling:

If more than few streams connect the measure it becomes essential to consider framework and present some streams taking too much bands.

Q. Elaborate on various security measures in distributed systems.

→ In DS, one must consider many possible security risks.

- Encryption algorithm that protect data in

transmit and at rest.

- Finalize that limit access to specific test infrastructure detection system that identify assembly behavior among network services.
- Intrusion Presentation system (Ins) respond to attempted intrusion by initial defensive action like blocking suspicious IP address or taking down compromised servers.

Q Give advantages of hierarchical caches for web proxy.

- • Hierarchical servers are placed at different levels on networks.
- Upstream caching servers communicate with downstream process.
- Has lowest disk space requirement caching level.



Q Discuss the structure for request and response messages of HTTP.

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- Communication between a client and server takes place by exchanging the message.
  - HTTP recognizes two types of message which are only request and response message.
  - A request line is compulsory and specifies the operation that client and the server.
  - To perform together with a reference to document associated with request.
  - A response message begins with status line that comprises a session and also a three digit status code.

Q What are the components of web services?

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- Components of web services are divided into 3 categories

1) XML - RPC

XML - RPC protocol that uses XML message to perform RPC.

2) SOAP :

SOAP is an XML-based protocol for exchanging information.

3) WSDL :

WSDL was developed by Microsoft and IBM. It is a standard format for describing services. It is an integral part of @kg.

Q. Differentiate between traditional and modern web-based systems.

- 1. In traditional client server system, the model and control is not affected by its use.
- But in web application users can create normal control. For example, users can refresh button, in web browser.
- Due to dynamic environment, web system demand more request maintain.
- Traditional systems are platform specific. Web client is operating within the web browser environment.



- Web system has more dynamic environment as compared to traditional client - server system.