

Design Patterns

Software Engineering: Exercise Four

Group Members;

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Part 1 – Software Architectures:

Figure 1 illustrates a client server - box-and-line diagram outlining the basic software architecture for our conceptual application which we based of drobox.

A concise summative description of the individual of the components within the software architecture include:

Client:

Client are the end users which upload and retrieve the data from the server for remote file management. The interface used by the user are different platform Desktop, Mobile and Tablet which runs different OS.

TSL/SSL:

Transport Layer Security (TLS) and Secure Sockets Layer (SSL), are for cryptographic protocol for security of data communication between the server and web browser.

Processing Layer:

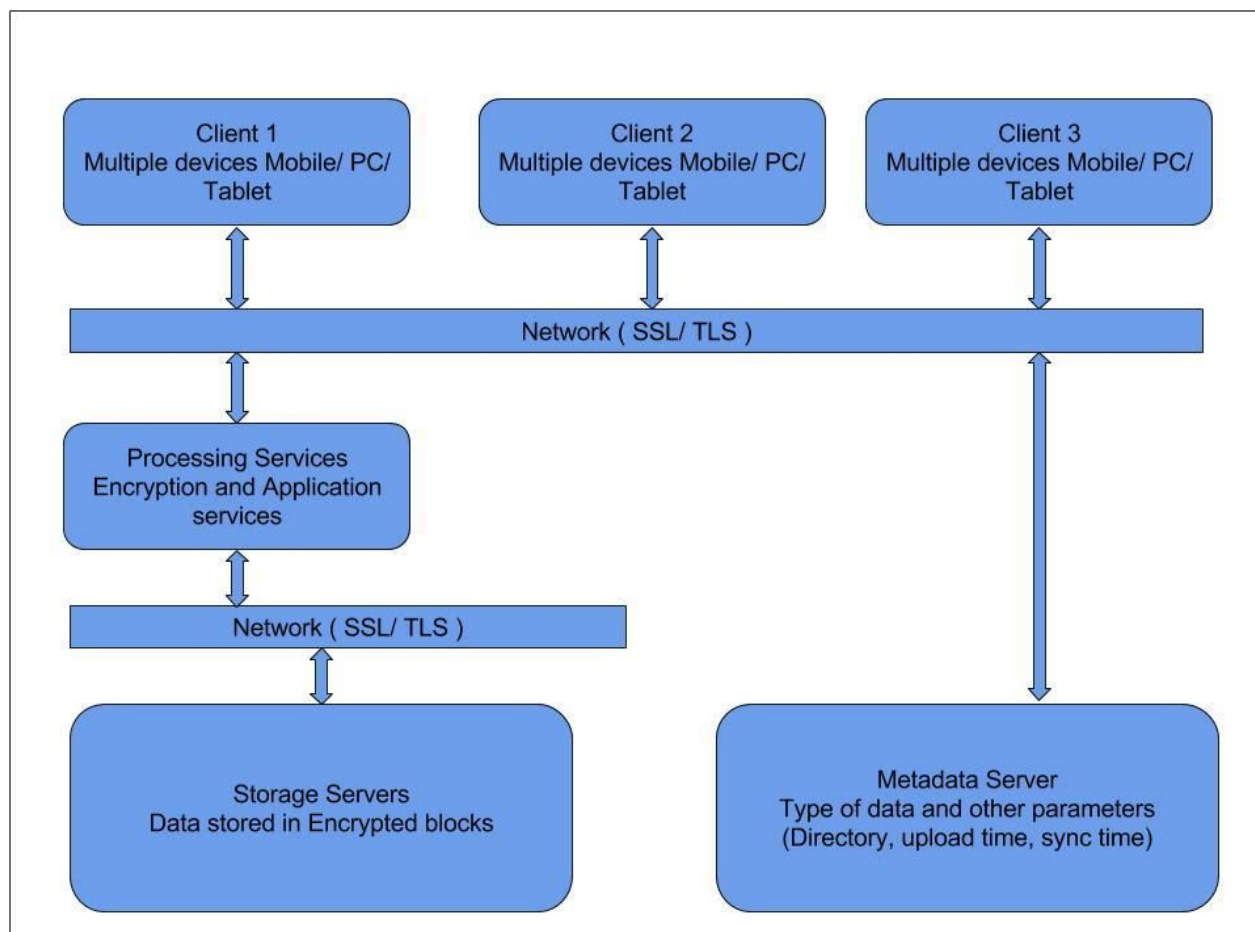
This service handles all processing for the Dropbox applications at Presentation layer. Each file is slipped into blocks of data for the delivery and formatting of information to the application layer for further processing or display. This service is there also responsible for the encryption and decryption. Only blocks that have been modified are synced. When a change is made, new or modified blocks are processed and transferred to the storage service.

Storage server:

The content of the files are stored in this packets. To retrieve the file the server commands the metadata server to send the Index values for the particular file.

Metadata server:

Metadata of the main content are stored in the packets as Index Values which includes file type, Synch time and Upload time. This metadata acts as an index for data in users' accounts, and is shared and replicated as needed to meet performance and high availability requirements.



Our architecture is comprised of the following services:

