System overview

General overview of the system architecture and functionalities

System components

There are the following types of clients components in a Bit Repository system:

**Pillars**

Pillars are responsible for maintaining copies of the store material and providing bit preservation related operations on these

There are the following types of pillars seen from the data perspective:

- A full copy pillar, which contains full copies of delivered files identified uniquely with a service level agreement
- A checksum pillar (with specific checksum type), which contains derived copies of delivered files, in form of a checksum. The checksums are identified uniquely with a service level agreement in the same way as for full copies pillars.

**Clients**

Clients which can be used to perform operations on the bit repository, e.g. PutFile, GetFile. See Operations for a full listing.

**Services**

Services actively perform tasks without user triggering, see Reference services for examples of services.

**Infrastructure**

Provides the communication infrastructure for integrating the components. This consists of:

- An ActiveMQ Message Bus.
- A Monitoring Service

**Principles**

- Components have no direct knowledge of each other's location. Communication is rather performed indirectly by using the specified Queues and Topics.
- All communication is asynchronous.