

# CERN Data Management - LFC Requirements

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- external resource: EMI Data Message Passing

## Description

Catalogue consistency EMI project and the LFC/DPM.

One-way reliable data transfer between N producers and M consumers.

## Client types

### Producers

1 producer per Storage Element or Catalogue. Mostly WAN distributed.

### Consumers

1 consumer per Storage Element or Catalogue. Mostly WAN distributed.

## Destination types

2 by now.

### For a give destination type:

- instances number: 100-200 hundreds
- messages content: file metadata
- messages size: few KB up to roughly 1MB
- format of the messages body: JMS MapMessages, eventually translated
- messages lifetime: days
- maximum latency: < 2 seconds
- permanent vs occasional connections: permanent connections
- security requirements: SSL connections

### For a given destination instance:

- order of 100 producers
- 1 consumer per virtual destination
- tens of messages per second up to 1K/s

### For a given destination type:

- order of 100 producers
- order of 100 consumers
- 1000 messages per second in total, peaks up to 10K/s

## Programming Languages

C++

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This topic: EMI > EMIMessagingRequirementsCERNDDataManagementLFC

Topic revision: r1 - 2011-04-01 - MassimoPaladin



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