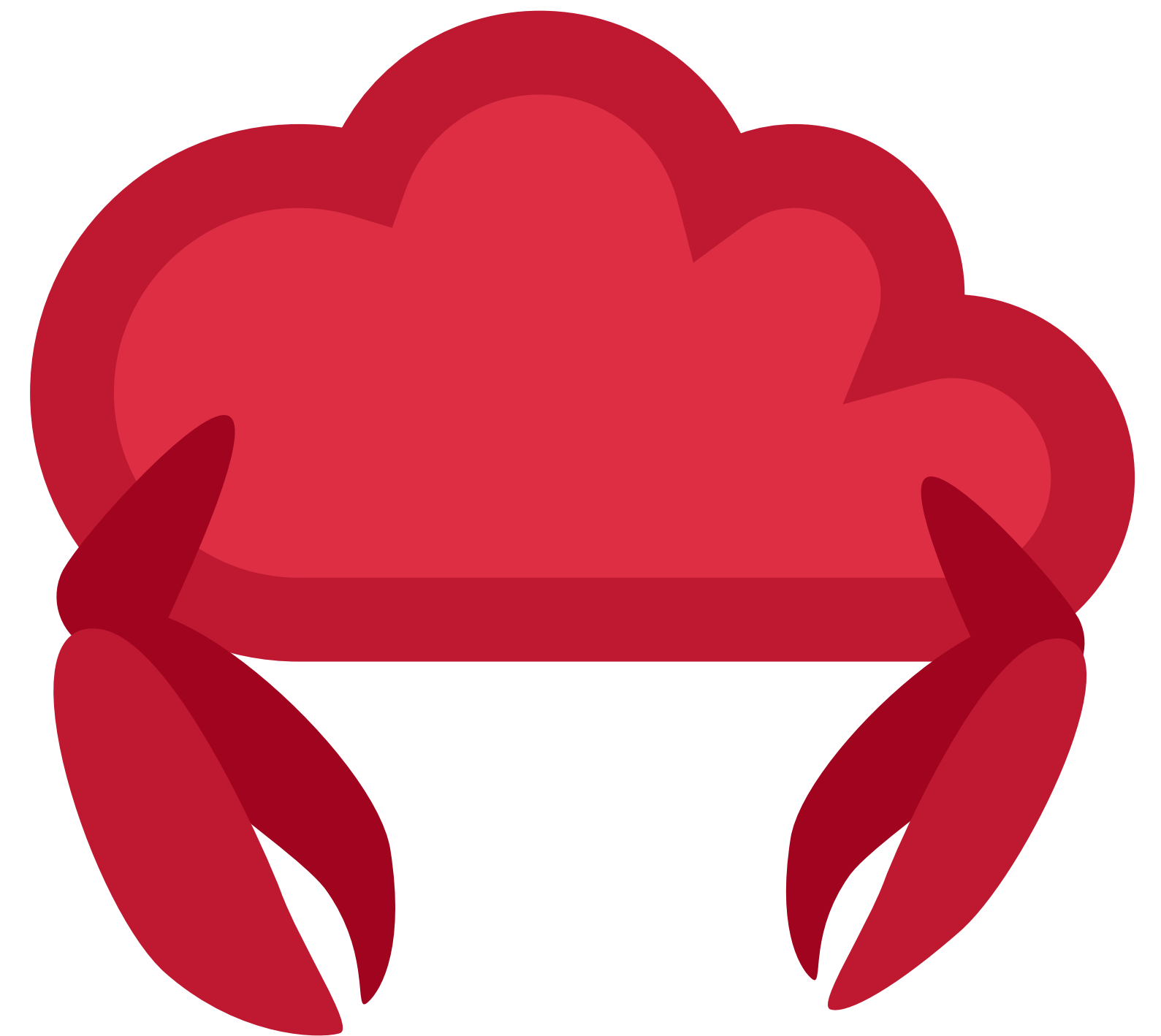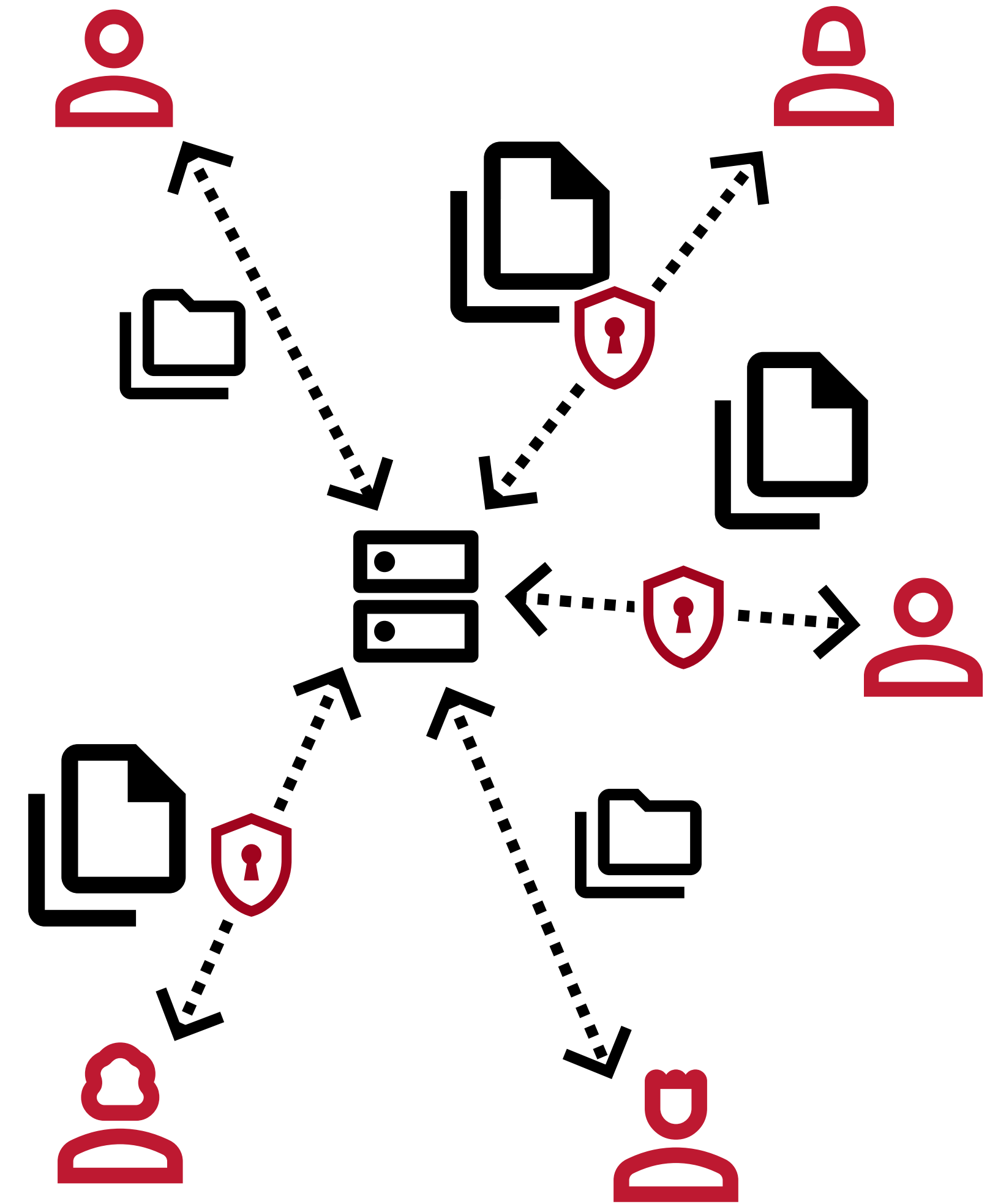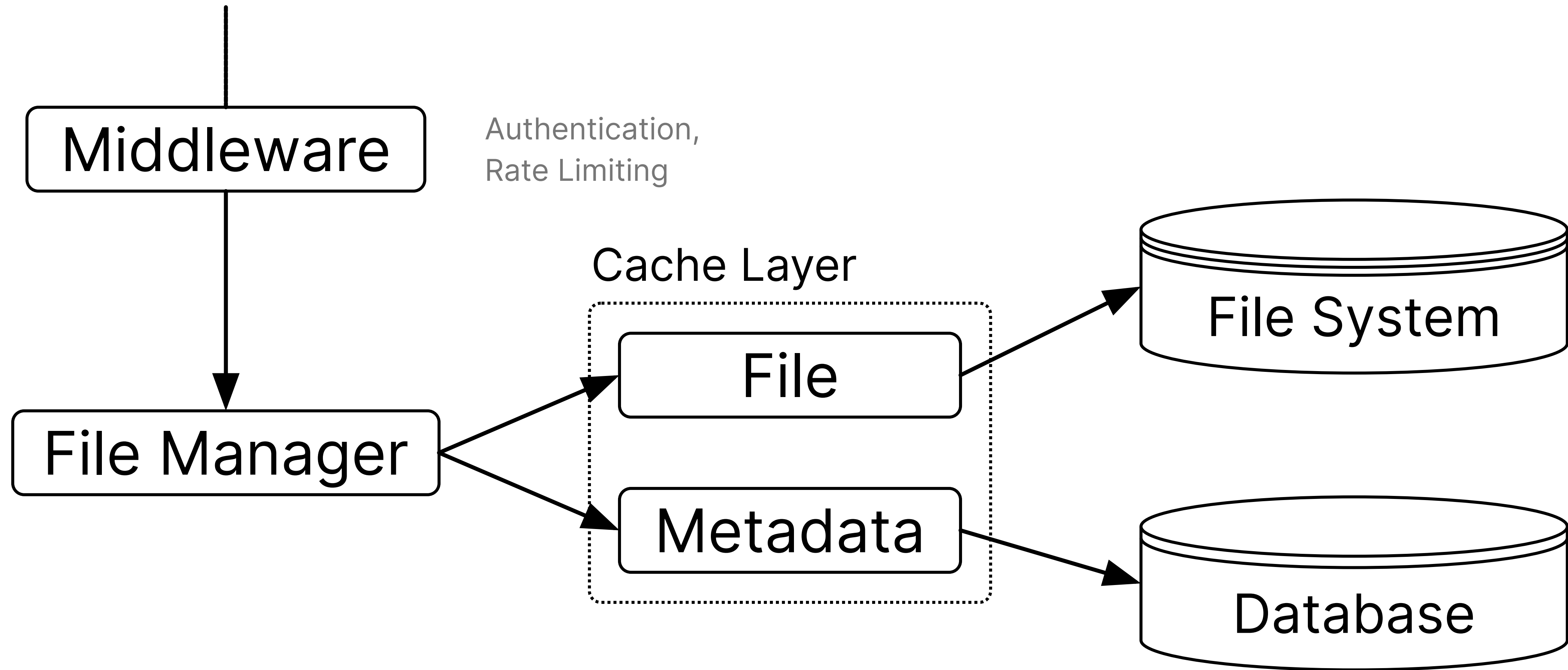Group 7

crabdrive

A cloud storage platform

Features

- Web interface for viewing and managing files
- File encryption
- Sharing files with other users
- File versioning

Architecture (Server-Request Handling)

Middleware

Authentication,
Rate Limiting

File Manager

Cache Layer

File

Metadata

File System

Database

Notes

- crabdrive should behave similarly to other cloud platform providers (Google Drive, OneDrive, etc.)
- File encryption is zero trust (meaning no one – even with access to the server – can read your files)
- We use **`axum`** or **`arctix`** as server framework/library
- Cache Layer for performance improvements; minimize disk operations (disk is bottleneck, in memory is faster)
- The filetree is stored inside a SQL Database
- Files are stored inside custom object storage
- File versioning allows for restoring file contents from a specific point in time