

# 2019 - 2020 Technical Priorities

Although there are various community-driven developments in the Fedora ecosystem, this document describes the roughly 12-month technical focus of the core repository platform.

## Fedora 6.0.0

The next major version of Fedora will focus on the following requirements:

1. Replace the ModeShape persistence layer with a different technology that implements the [Oxford Common File Layout](#)
2. Add a synchronous [query service](#)
3. Improve the [fixity service](#)
4. Address known performance and scale issues
5. Support migrations from earlier versions of Fedora (3.x, 4.x, and 5.x)

Further details can be found on the [design page](#).

Fedora 6 development is expected to take place over the course of [monthly code sprints](#) throughout 2020.

## Why the Oxford Common File Layout?

The OCFL provides the following benefits:

1. **Parsability**, both by humans and machines, to ensure content can be understood in the absence of original software
2. **Robustness** against errors, corruption, and migration between storage technologies
3. **Versioning**, so repositories can make changes to objects allowing its history to persist
4. **Storage diversity**, to ensure content can be stored on diverse storage infrastructures including cloud object stores
5. **Completeness**, so that a repository can be rebuilt from the files it stores

These benefits supplement the [digital preservation features](#) already provided by Fedora, including:

1. **Fixity**: Checksums can be calculated, stored and compared on demand
2. **Versioning**: Objects and files can be versioned and restored on demand
3. **Import/Export**: Objects and files can be exported on demand to facilitate their use in other elements of a digital preservation workflow
4. **Audit**: Preservation metadata can be generated by repository events and indexed in a triplestore for querying

The combined functionality of Fedora with OCFL persistence will better support an overall digital preservation strategy.