
**Distributed Management Systems for Federation Learning Based Privacy Preserving
Platform**

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ABSTRACT

This disclosure describes a design of Distributed Management Systems that are provided for federation learning platforms which preserve privacy. The present disclosure first describes the major difficulties of the public accessible federated learning platform. Then it describes a design of Management System that can resolve the difficulties that include Node management, Dataset metadata management, Query management and Resource management. It describes the life cycle of different entities in the platform and the lifecycle of federated learning queries Furthermore, the present disclosure describes a reputation feedback technique to encourage participants to report correct information. The Management System contains a resource predictor and a scheduling system that will adapt to various resource and privacy constraints. Also, it is a naturally distributed system that each of its components can be splitted into microservices and be scaled horizontally.