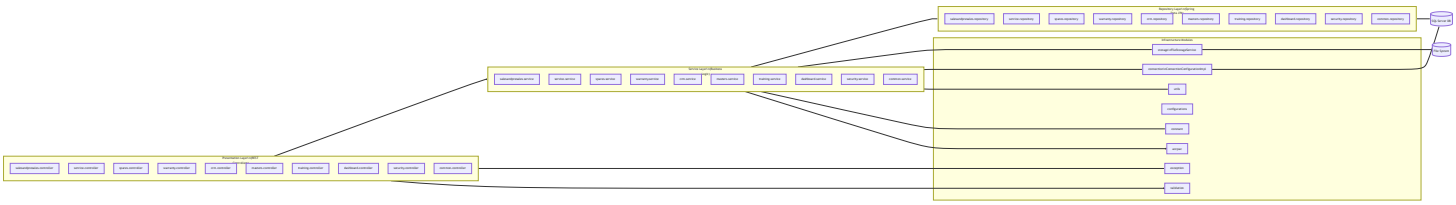
KUBOTA DMS - High Level Architecture

This document describes the **overall architecture** of the KUBOTA Dealer Management System (DMS), including:

- **Angular micro frontends** (per domain) orchestrated by a **main shell app**
- A single **Spring Boot monolith backend** split into **20 functional modules**
- Shared **infrastructure services** (security, configuration, connection, utils, common)
- **External systems**: Microsoft SQL Server, SMTP, JasperReports, file system storage

1. System Context & Major Components

2. Backend Module Layering



3. Frontend Composition Overview

4. Notes

- **Security**: All API calls are protected by Spring Security with JWT. Tokens are issued by `LoginController` / `JwtProvider` and stored in `SYS_USER_TOKEN` via `UserTokenService`.
- **Reporting**: Business modules delegate report generation to `JasperPrintService`, which uses `ConnectionConfigurationImpl` to obtain raw JDBC connections for JasperReports.
- **File Storage**: Modules (sales, service, warranty, CRM) upload and download documents via `FileUploadController` and `StorageService`, which writes to `upload-dir` and stores metadata in SQL Server.
- **Lookups & Templates**: UI dropdowns and import templates are served by the `common` module (`SysLookupController`, `/downloadTemplate`).