Access Requirements

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Why Remote System Access Is Needed

To ensure the highest possible level of customer support and efficiency, Advarra requires access to database and application servers during implementation and for ongoing support and maintenance activities of Advarra products.

Advarra realizes customer security policies vary and remote system access may require security exceptions. We work with our customers to find way

Access Methods

For on-premises customers, VPN (Virtual Private Network) access is most common and is preferred by Advarra for connectivity to customer systems. Customers typically provide individual VPN accounts with token-based multi-factor authentication for our staff who require back-end (application and database) access and when the front-end of the application is not accessible outside the institution.

Stages of a Product Lifecycle

- Implementation: Initial installation of the software and any subsequent project where new functionality is enabled and/or configured.

- Data Migration: Migration of data from existing systems into the Advarra product during or independent of an implementation.

- Support & Maintenance: Routine support and troubleshooting activities after go-live.

Access Levels Explained

- Front-end Elevated: Administrative-level front-end access to the various products. This access level is comparable to the access level that institutional project team members will have, with the addition of being able to set configuration options from the user interface.

- <u>Application Server</u>: Administrator or sudo privileges granted at an operating system level on the application servers to allow technical resources to perform installation and maintenance activities of the applications.

- <u>Database Server</u>: Administrator or sudo privileges granted at an operating system level on the database servers to allow technical resources to perform exports, imports, and data migration tasks.

- <u>Legacy system data</u>: Access to the data to be migrated in an Oracle database format which can be accessed by Advarra technical resources over the Oracle native SQL*Net protocol using standard GUI tools. If data to be migrated cannot be provided in Oracle database format, arrangements will need to be made to convert it into an Oracle database prior to commencement of data migration.

- <u>Database Schema</u>: Direct SQL*Net access to any schema used by the application to perform queries and execute SQL scripts and fix issues with data in an ad-hoc manner.

Advarra Team Definitions

- <u>Project Management</u>: Project managers and project advisors directly involved with an implementation project.

- <u>Product Support</u>: Support resources who provide day-to-day user support of the products.

- <u>Systems Administration</u>: Implementation and maintenance team members responsible for the initial implementation and ongoing maintenance of a product.

- <u>Database Administration</u>: Database engineers and database administrators who provide database installation and configuration guidance and perform data migration activities.

- <u>Support Engineering</u>: Technical resources who troubleshoot complex issues within an application and execute SQL scripts to resolve data-related issues.

Access Requirement Matrix

The following matrix outlines the access requirements for a team at a given stage.

Advarra Team	Product Stage and Access Required		
	Implementation	Data Migration	Support & Maintenance
Project Management	- Front-end Elevated - Database Schema	- Front-end Elevated - Database Schema - Legacy System Data	None

Product Support	- Front-end Elevated	- Front-end Elevated	- Front-end Elevated
Systems Administration	- Application Server - Database Server	- Application Server - Database Server	- Application Server - Database Server
Database Administration	- Database Server *	- Database Server * - Legacy System Data	- Database Server *
Support Engineering	- Front-end Elevated - Database Schema	- Front-end Elevated - Database Schema	- Front-end Elevated - Database Schema

* Although Advarra will provide guidance on configuration parameters and required patches, customers should have dedicated internal resources available to perform routine database configuration and maintenance tasks. Tasks performed by Advarra staff on a database server are limited to schema import and export activities and SQL script execution.

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