



Smarten Working with Multitenancy

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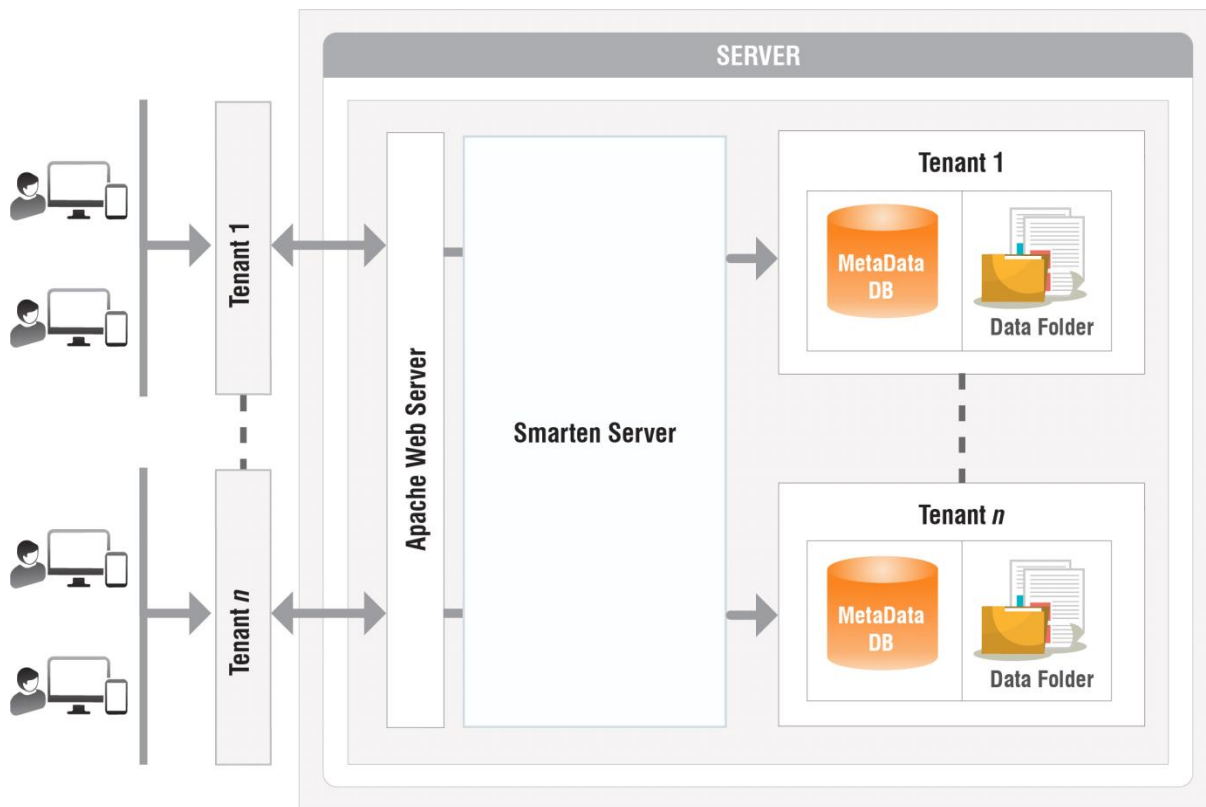
Disclaimer

This document is intended to support administrators, technology managers or developers using and implementing Smarten. The business needs of each organization will vary and this document is expected to provide guidelines and not rules for making any decisions related to Smarten. The overall performance of Smarten depends on many factors, including but not limited to hardware configuration and network throughput.

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1 Architecture



SMARTEN—MULTITENANT ARCHITECTURE

Key Components

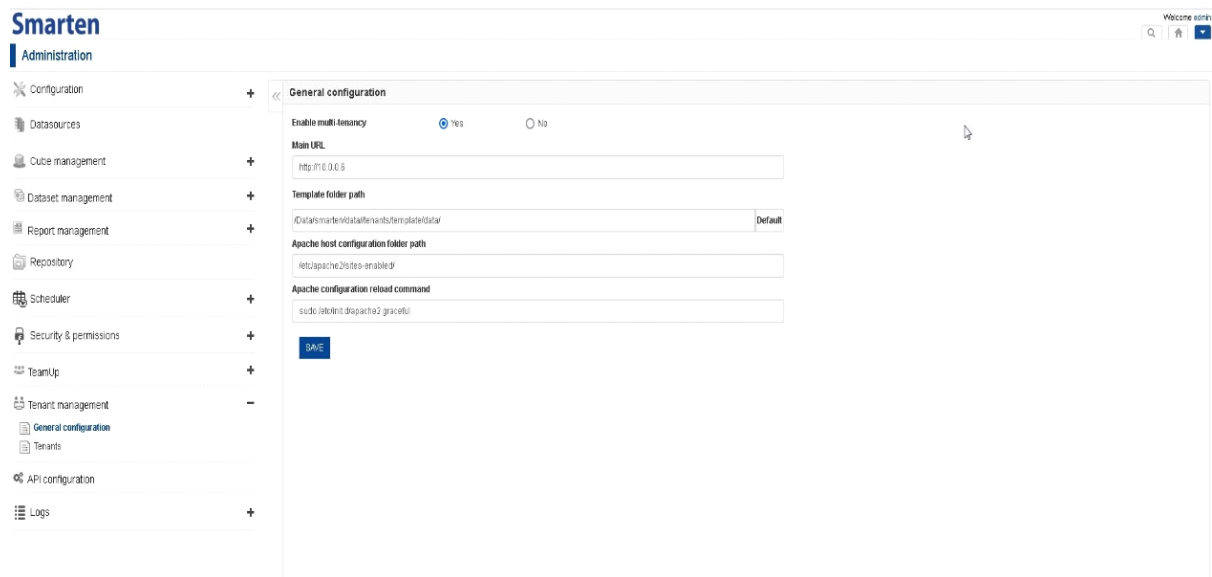
- **Apache Web Server**—In Smarten multitenant installation, the Apache web server is used for tenantwise URL access to the application. Apache's web server's proxy-pass mechanism is used for configuring the multitenant environment.
- **Single Deployment and Tenantwise Separate Metadata**—Smarten multitenant architecture shares single application deployment across tenants, which makes application maintenance and upgrades easy. From a data security point of view, each tenant will have a separate metadata database. It is recommended to use MySQL database as metadata DB.
- **Tenantwise separate Data Folder**—As with the metadata database, the tenant will have separate data folders to store cache cubes, dataset data, or object data and other files.

2 Tenant Management

Smarten provides a tenant management module in the administration section of the base application interface. The administrator can manage tenants and other multitenant configuration settings.

2.1 General Configuration

The administrator can configure the default metadata template folder, domain name, and other parameters from this screen.



TENANT MANAGEMENT—GENERAL CONFIGURATION

Below is a list of parameters that need to be configured to set up the Smarten multitenant environment:

Parameter Name	Description
Base URL	Base URL of your tenant host. Example: http://10.0.0.73
Template folder path	Specify path of template data folder. While creating a new tenant, the system will use this template data and create a tenant environment as per template data. For example, if you have created three datasets or cubes, five dashboards, and ten crosstabs objects and you want all these objects preconfigured in your new tenants, you can configure the tenant template folder located in <SMARTEN_DATA_FOLDER>/tenants/template folder, and all objects within this template folder will be deployed on the new tenant.
Apache host configuration path	Specify Apache host configuration folder path. This folder contains virtual hosts configuration files. The system will create a virtual host configuration file for a specific tenant in this folder. Each tenant has its own separate site and URL. Virtual host configuration enables more than one website on a single web server.

	Example: /etc/apache2/sites-enabled/
Apache reload configuration command	Specify Apache reload command. The system will call this command after creating a virtual host file for a tenant to load tenant virtual host configuration. Example: sudoapachectl graceful

2.2 Configuring Tenant Template Folder

The administrator can configure the tenant template folder. Whenever a new tenant is created, its environment will be created as per template. For example, if you have created three datasets or cubes, five dashboards, and ten crosstabs objects and you want all these objects preconfigured in your new tenants, you can configure a tenant template folder located in the <SMARTEN_DATA_FOLDER>/tenants/template folder, and all objects within this template folder will be deployed on the new tenant.

The tenant template folder consists of the following folders:

Parameter Name	Description
Data	This folder contains data folder structure of the base application data folder. When a new tenant is created, the system will copy this data folder in the tenant's data folder. It is recommended to remove unwanted files, such as log files and temp files, from this folder.
Mysql	This folder contains tenanttemplate.sql script. This script can be taken from the base application metadata DB using mysqldump command. This script will have all Smarten metadata definitions, and when a new tenant is created, its metadata DB is created using this script.

2.3 Manage Tenants

The administrator can manage tenants from the tenant management section in the administration interface of the base application. The administrator can create, update, and delete tenants.

The screenshot shows the Smarten Administration interface. On the left is a sidebar with navigation options. The main area is titled 'Tenants' and contains a table with the following data:

TENANT ID	TENANT NAME	TENANT URL	CREATED	UPDATED
client1	corena	http://10.0.0.6:8080/corena	admin 22-Nov-2020 12:37:27	admin 01-May-2021 19:13:56
client2	Print	http://10.0.0.6:8080/print	admin 21-May-2021 11:47:03	admin 21-May-2021 11:47:03

MANAGE TENANTS

2.3.1 Add or Edit Tenant

The administrator can add or edit a tenant using this screen. By adding a tenant, the system will create a copy of the tenant metadata folder from the template configured by the administrator. The administrator can also control license information for specific tenants, including user type, number of users, modules access, and expiry.

</

ADD TENANT

+
Add tenant

Tenant

Licence Configuration

Number of administrator

Number of power user

Number of user

Number of publish only user

Number of SSDP user

Number of SmartenInsight power user

Number of SmartenInsight view only user

Number of records

Number of module

☒ Crosstab
☒ Graph
☒ SmartenView
☒ Tabular
☒ Dashboard
☒ Scheduler

☒ Admin
☒ KPI
☒ API
☒ SSDP
☒ SmartenInsight

Expiry date

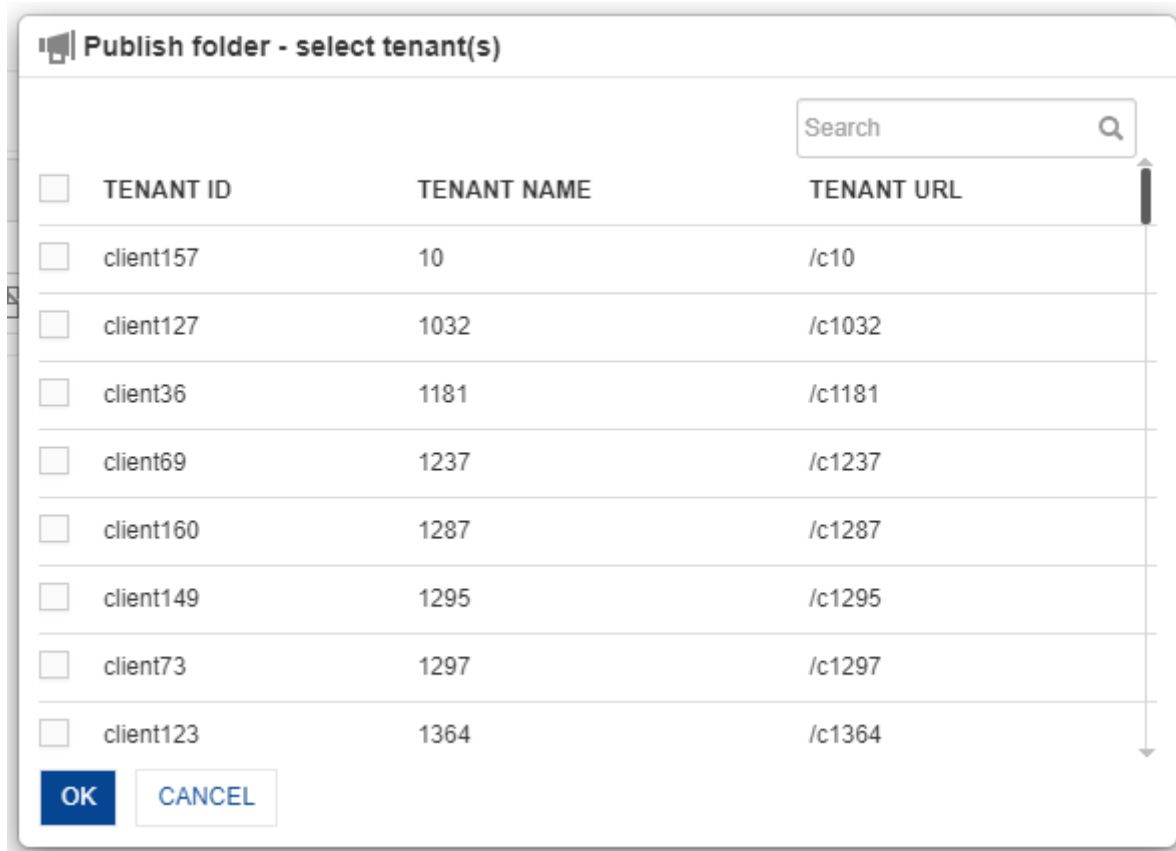
OK

CANCEL

ADD TENANT—LICENCE CONFIGURATION

2.4 Publish to Tenants

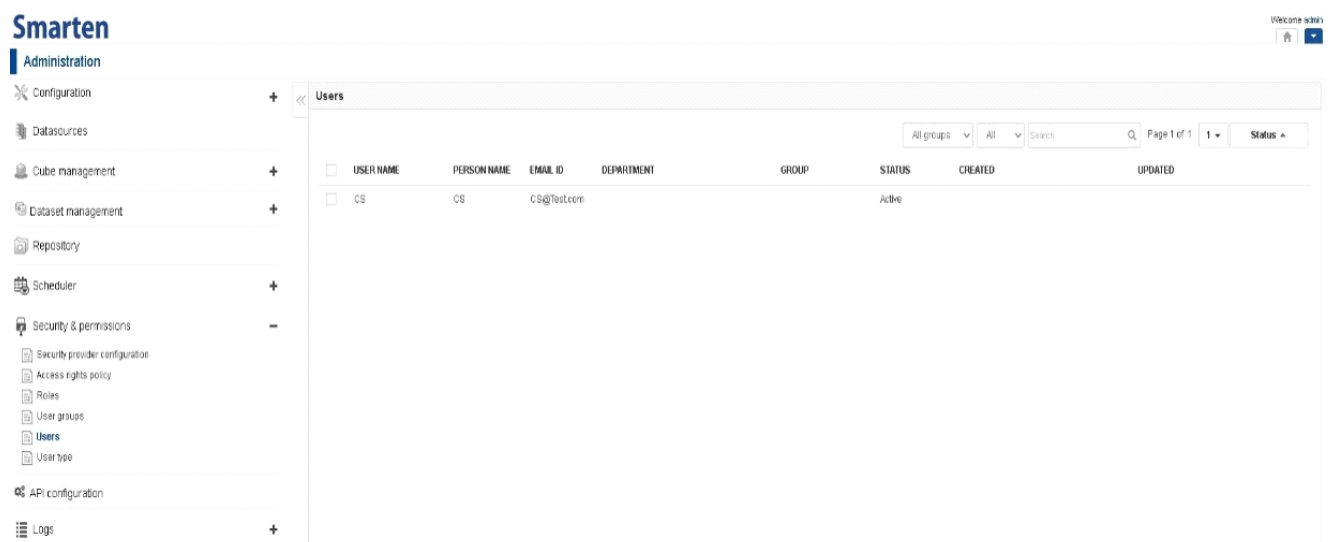
The administrator can publish folders, BI objects, datasets, or cubes to other tenants from the base application. The administrator can easily deploy newly created or updated BI objects and datasets to tenants.



PUBLISH TO TENANTS

3 Tenant Administrator Interface

Smarten provides a tenantwise administration interface. Tenant administrators can manage users, roles, BI objects, cubes, datasets, and other configurations for their tenant environment.



TENANT ADMINISTRATION

4 Product and Support Information

Find more information about Smarten and its features at www.smarten.com

Support: support@smarten.com

Sales: sales@smarten.com

Feedback & Suggestions: support@smarten.com

Support & Knowledgebase Portal: support.smarten.com