SQL Sentry Portal Security

Last Modified on 29 April 2021

Authentication Methods

SQL Sentry Portal Service

The following authentication methods are available for connecting the SQL Sentry Portal service to your SQL Sentry database:

- **Integrated Windows Authentication** is available in versions 2020.8.31 or later. It is not available in version 2020.8.
- **SQL Server Authentication** is available in all versions.
    - The SQL Server account must have read, write, and execute access to the SQL Sentry database.

SQL Sentry Portal User Access Requirements

> ℹ **Note:** The access requirements in this section are for users logging into SQL Sentry Portal. **SQL Server Authentication is not supported for users logging in to use the portal through a browser**.

Users logging into SQL Sentry Portal through a browser must have access to the Windows Server hosting SQL Sentry Portal. For a user to access SQL Sentry Portal, at least one of the following sets of requirements must be met:

- The **Windows user identity** is associated with a SQL Sentry contact (or is in an Active Directory group that is associated with a SQL Sentry contact) **or** it is associated with a SQL Sentry contact group (or is in an Active Directory group that is associated with a SQL Sentry contact group).

or

- The **Windows user identity** has login access to the SQL Server instance that hosts the SQL Sentry database **or** it is in an Active Directory group that has login access to the SQL Server instance that hosts the SQL Sentry database.
    - **Note:** Read/write access to SQL Sentry database is not validated.

Rights Based Security

Starting with version 2021.1, SQL Sentry Portal supports **Rights Based Security**. See the Rights Based Security article for more information.

Feature Based Security

Starting with version 2021.8, SQL Sentry Portal offers **Feature Based Security** which layers on top of **Rights**

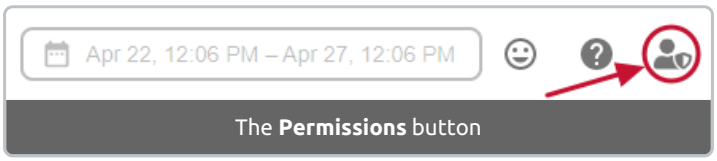
Based Security.

Feature Based Security is applied to contacts or contact groups in the SQL Sentry client, which are linked to an AD user or AD user group. Once the users are added through the client, they are available on the **Users and Groups** page in the SQL Sentry Portal. Feature Based Security uses roles to control access and is **Default Deny**. This means new users will only be able to access the Health view until they are assigned to roles that add more permissions.

> ℹ **Note: New Installations vs. Upgrades**
>
> - During a **new installation**, no roles are assigned to default users/groups.
> - When **upgrading SQL Sentry** from a version that predates **Feature Based Security** (earlier than 2021.8) to one that supports **Feature Based Security** (versions 2021.8 or later), existing users and groups receive **Alerts**, **Performance**, and **Query Tuner** roles to maintain their existing access.

Permissions Page

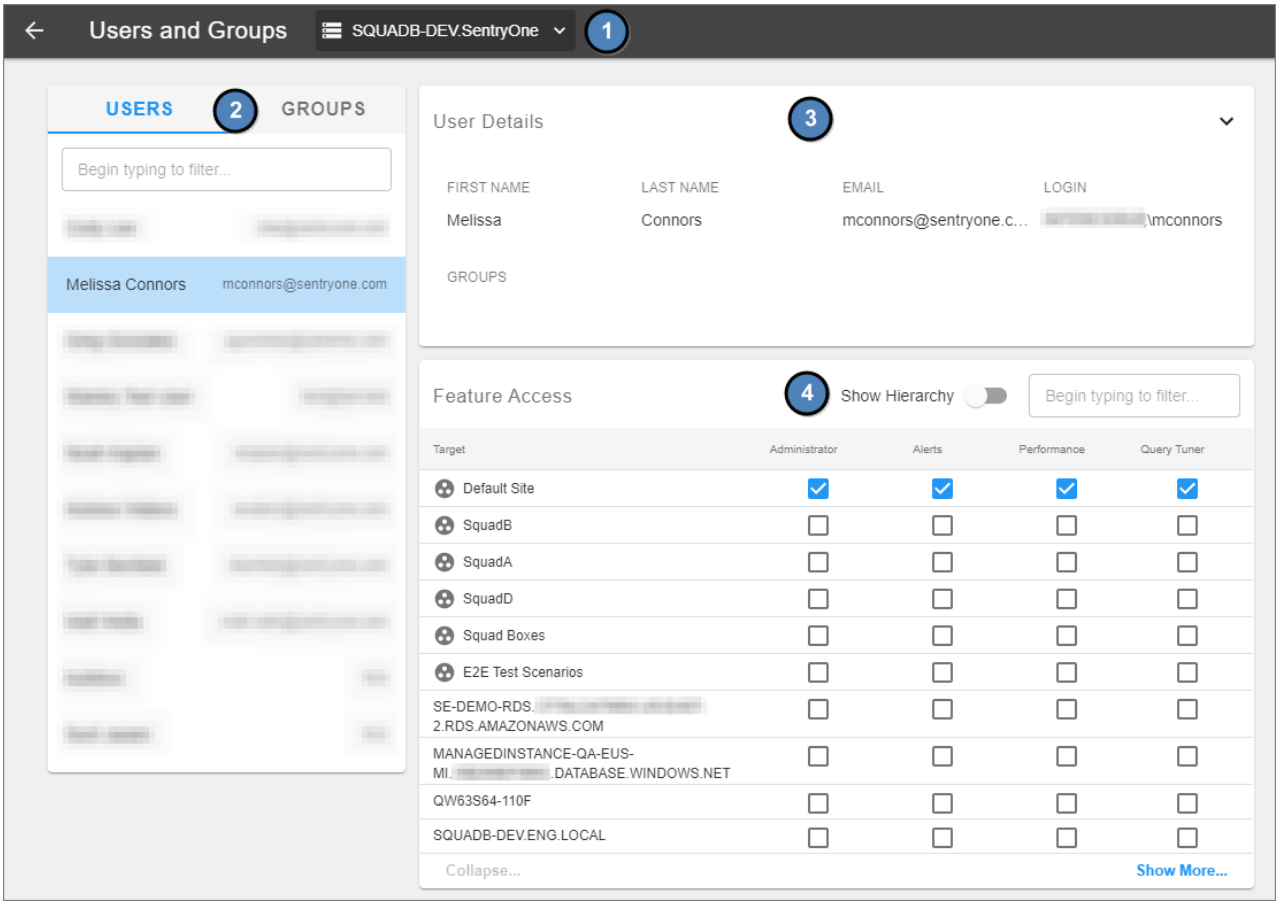
Select the **Permissions** button from the top right in the navigation menu to open the **Permissions** page.



The **Permissions** button

The **Permissions** page has 4 main sections worth noting:

1. **SQL Sentry database environment** drop-down
    - ℹ **Note:** If you are using distributed SQL Sentry databases, roles must be configured per SQL Sentry database (i.e. if you have multiple SQL Sentry databases such as *SQLSentryUS* and *SQLSentryUK*).
2. **Users** or **Groups**
3. **User** or **Group Details**
4. **Feature Access** grid



Users

The **Users** section lists all users that exist as contacts in SQL Sentry.

If a user belongs to one or more groups, they will be listed under groups in the **User Details** section.

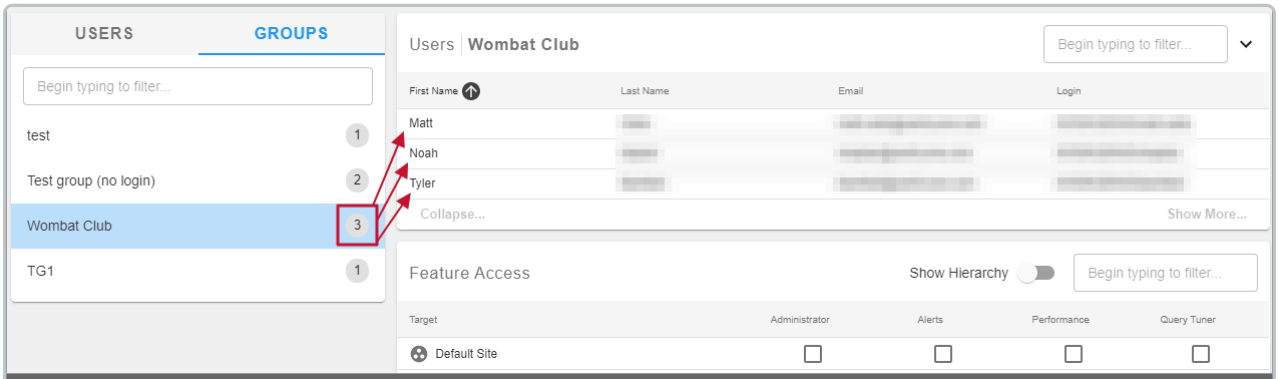
User Details showing user *Noah* in the *Wombat Club* group

> **Note:** Inherited permissions from groups are not currently displayed in the **Feature Access** grid for the user in the roles.

Groups

The **Groups** section lists all groups that exist in SQL Sentry. Roles applied at the group level are inherited by

the users in that group. The groups display the number of members next to the group name. Select a group to display the list of users and **Feature Access** for that group.



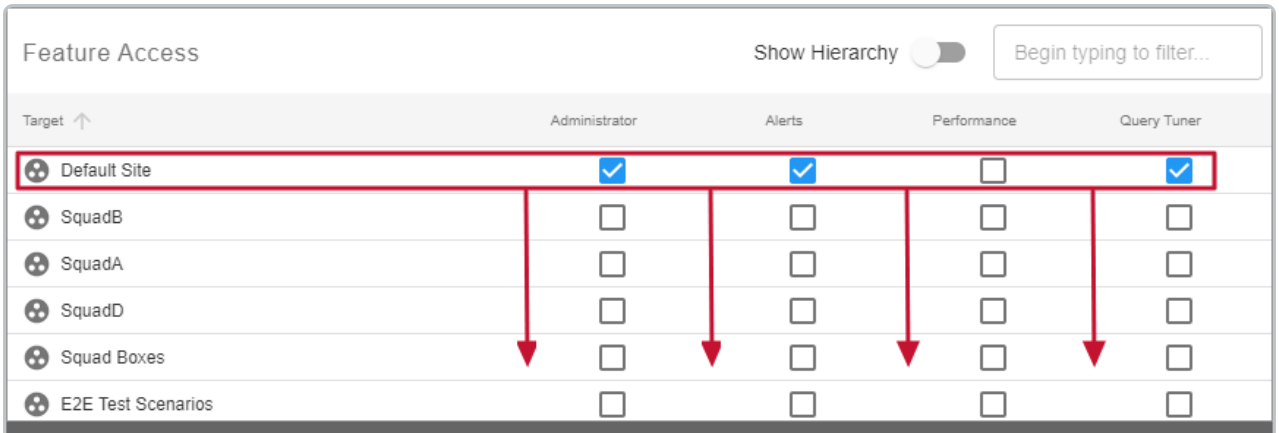
Wombat Club group showing the 3 users in the group

Feature Access Grid

The **Feature Access** grid is where you assign roles to users and groups.

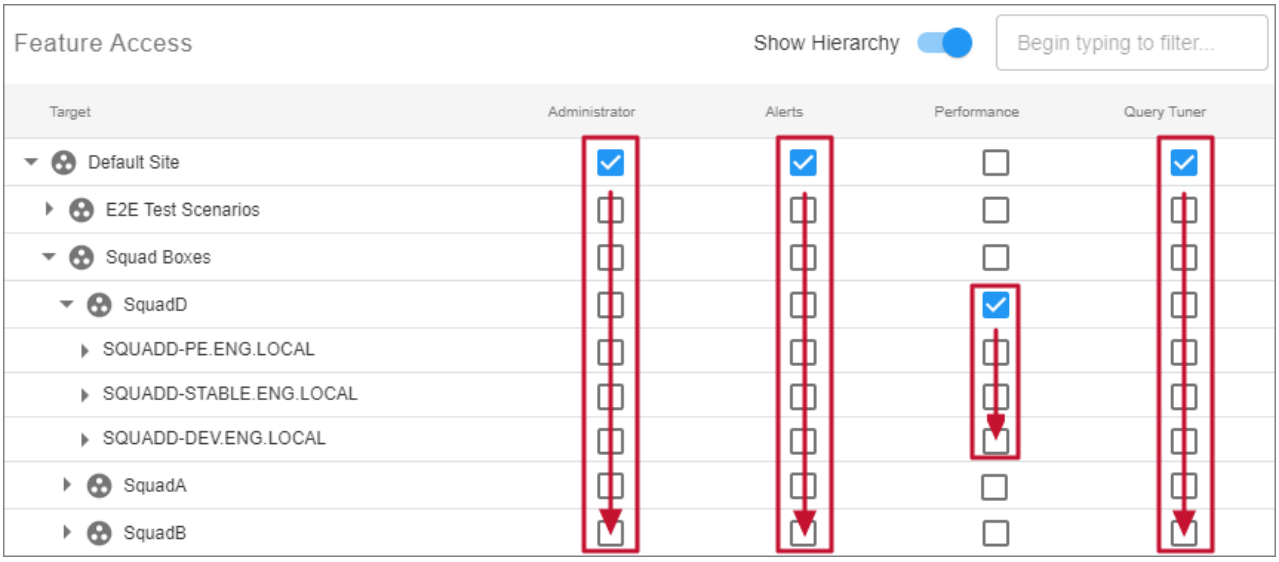
> **Note:** There are no edit or save buttons on the **Permissions** page. Any changes that are made in the **Feature Access** grid are automatically saved and are immediately in effect.

Roles set at the site level will flow through to the targets in that site. In this example, all sites and targets belong to the *Default Site*.

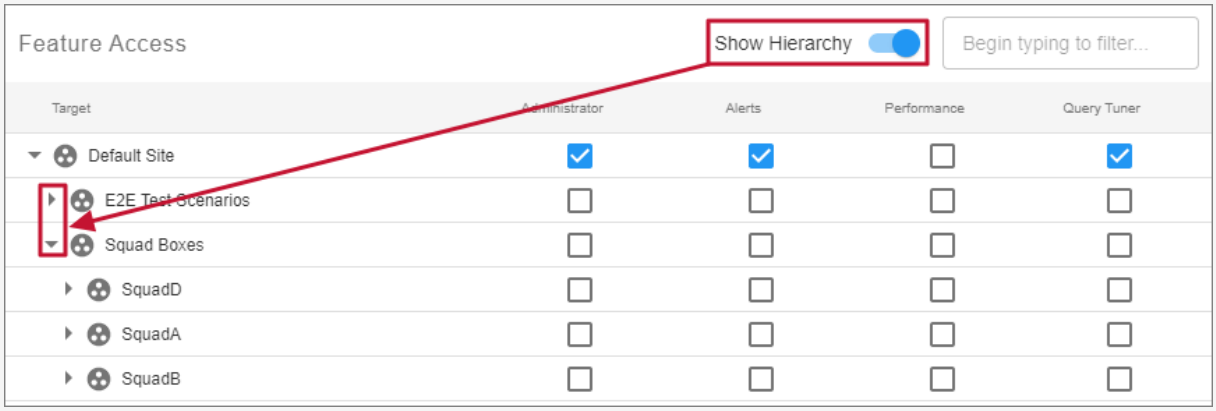


Administrator, **Alerts**, and **Query Tuner** roles applied at the *Default Site* level apply to all targets in the site.

If a role is applied to a site within a site, then anything within that sub-site will inherit the role. In the following example, the **Performance** role is applied to site *SquadD*, (which is within the *Default Site*). The user (or group) will gain **Performance** role access to all targets within *SquadD* (*SQUADD-PE.ENG.LOCAL*, *SQUADD-STABLE.ENG.LOCAL*, and *SQUADD-DEV.ENG.LOCAL*) without gaining that additional access to other targets.



Note: Use the **Show Hierarchy** toggle to show which targets are impacted by a setting at a higher level in the hierarchy.



Default Roles

The following default roles are available:

Administrator

The **Administrator** role provides access to the **Permissions** page in SQL Sentry Portal. Administrators can only see targets for which they are an administrator for on the **Permissions** page. The targets are also filtered by **Rights Based Security** for the administrator and selected user/group. This means that an administrator cannot assign **Feature Based Security** permissions to a target that the selected user cannot already access.

Note: The **Permissions** page can be accessed without the **Administrator** role if SQL Sentry Portal is accessed via the *localhost* domain. This gives the user admin-type rights at the **Default Site** for every tenant.

Alerts

The **Alerts** role provides access to viewing the Alerts view in SQL Sentry Portal.

> **Note:** Global alerts are only shown when the user has the **Alerts** role permission for every target/group.

Performance

The **Performance** role provides access to all metrics & chart data, including the Performance Analysis Dashboard, Custom Charts, Custom Dashboards, and charts on other views such as Top SQL and TempDB. Users with the **Performance** role may create, edit, and delete the custom charts and dashboards that they can access.

> **Note:** If a dashboard contains a custom chart for a target that is restricted from the user, the chart will display a "*This data is restricted*" message instead of the chart.

Query Tuner

The **Query Tuner** role provides access to the query and session information on the Top SQL, Blocking, Deadlocks, and TempDB views in SQL Sentry Portal.

> **Note:** The Top SQL and TempDB performance charts are hidden on these views unless the user has both **Performance** and **Query Tuner** roles applied.

Custom Roles

> **Unsupported:** Custom roles may be created directly through the SQL Sentry database. There is no UI or support available at this time.

Once a custom role is inserted into the SQL Sentry database, the role appears in the **Feature Access** grid and

may be assigned to users and groups the same way as default roles.

Step 1. Create a custom role

Run the following to create a role.

```
DECLARE @newRoleID UNIQUEIDENTIFIER;
SET @newRoleID = NEWID(); /*a GUID*/

INSERT INTO [Security].[FeatureRole] ([ID], [Name]
VALUES (@newRoleID, 'CustomRoleName');
```

Step 2. Apply permissions to your custom role

Use the following permissions and GUIDs to build your insert statement:

Permission	GUID
Administrator	`41BA7923-244B-4D44-A5A5-393EE3C2261C1`
Alerts	`A99A187E-925F-49C7-9037-F4EE9443874E`
Blocking	`869B8B31-AE09-4145-9B9D-964C7196DF42`
Deadlocks	`1CF9D61E-45EA-4851-B39C-0916FF1A5A24`
Performance	`01E6DA0E-EDF9-4A96-8336-63E225AF4CDA`
TempDB	`A8367D7C-FAB2-4979-A3BA-3887FDB6A526`
Top SQL	`C5D894C2-B721-4ECB-A596-7C9002F31783`

Run the following insert statement to apply permissions to the role. This example adds **Blocking** permissions to the *CustomRoleName*.

```
INSERT INTO [Security].[FeatureRolePermission] ([RoleID], [FeatureID]
VALUES (@newRoleID, '1CF9D61E-45EA-4851-B39C-0916FF1A5A24');
```

On the **Permissions** page, a 5th role named *CustomRoleName* now exists and provides **Deadlocks** permissions to any user/group assigned this role.