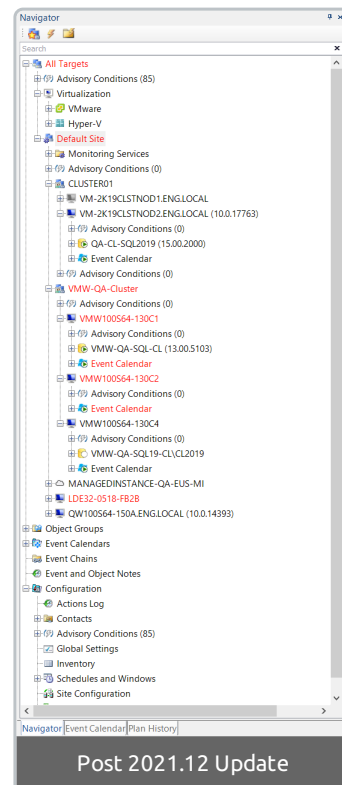
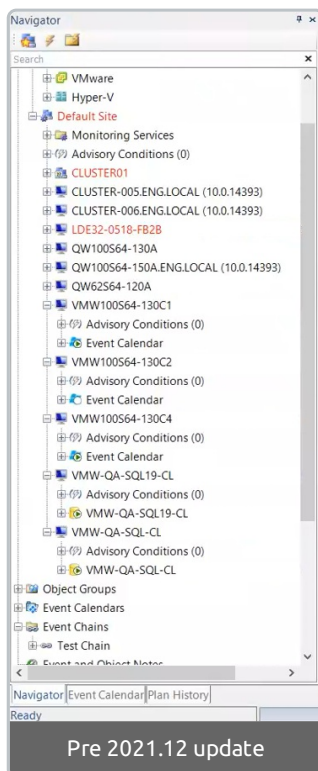


Enhanced FCI

Last Modified on 17 March 2022

⚠ Important: Enhanced FCI can be activated automatically or manually for product Versions 2021.12 or above.

Overview



Prior to the 2021.12 release, each Failover Cluster Instance (FCI) node in watched WSFC Clusters displayed a placeholder node corresponding to both the FCI and Windows metrics for the current owner. These settings could make it difficult to see clusters that an FCI node was associated with on the Navigator pane (without diving deeper into tables, or comparative metrics). Additionally, under these settings, there was the potential for the client to duplicate metric collection for FCI nodes.

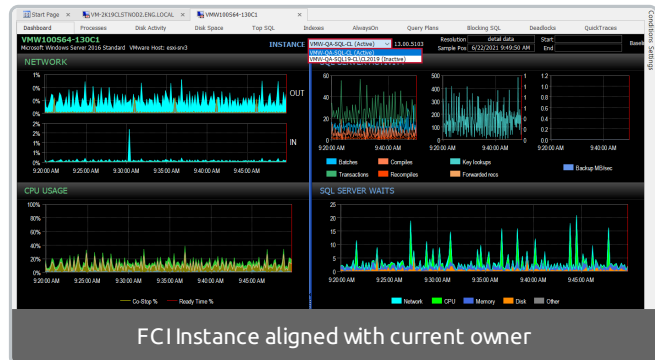
The Enhanced FCI feature moves FCI nodes under their current owner. Any watched placeholder targets will be realigned under this configuration. Enhanced FCI will also create groups by cluster and organize applicable FCI nodes into the appropriate groups. FCI and WSFC node targets watched prior to upgrading to 2021.12 will be realigned automatically during the upgrade if they meet the proper prerequisites. Or they can be aligned manually after the upgrade by executing a specific stored procedure on the SQLSentry database.

⚠ Important: Placeholder targets that were originally a parent to an FCI node may display as unwatched to prevent duplicate metric collection between the owner and placeholder node.

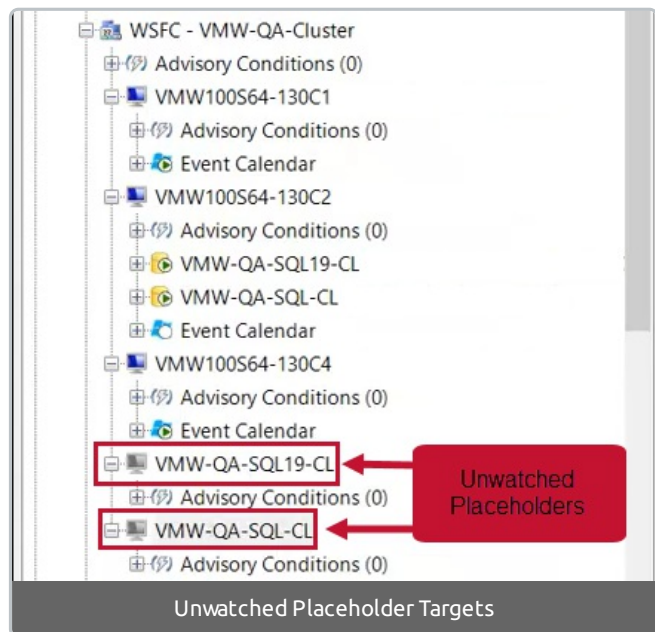
Enhanced FCI Procedure

Enhanced FCI can be implemented automatically during an upgrade or manually post-upgrade. During an automatic or manual Enhanced FCI upgrade, the Client does the following:

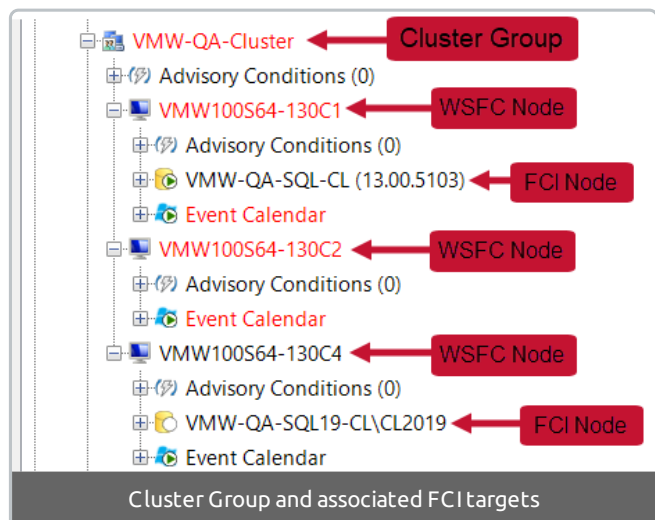
- Align any registered FCI instance with its current owner



- Identify and unwatch any orphaned placeholder targets



- Create a group named "WSFC - {cluster name}" under the site or group containing the majority of the cluster's associated targets for each WSFC associated to registered FCI(s)



- Move all targets associated with each WSFC cluster under their respective group

Note: Data collection for previously watched placeholder targets will still be available after the upgrade. If you set up alerts or reports on the placeholder targets, you can copy any settings onto the new watched FCI targets.

Important: After the upgrade, FCI nodes will automatically transition to the new owner in the event of a failover (even if they were previously associated with a placeholder node). If the FCI's new owner is unwatched or unregistered during the failover, the FCI will be unwatched. It is strongly recommended to watch **All** WSFC nodes associated to the FCI.

Automatic Alignment Prerequisites

Note: The Enhanced FCI upgrade will only execute automatically if all watched nodes meet this criteria.

When you upgrade to SQL Sentry 2021.12 or later, the Enhanced FCI feature set will be applied automatically if your client meets the following requirements:

- All FCI placeholder targets are *Watched*
- All nodes associated with each FCI are registered in the client
- All targets associated with each FCI are located in the same *Site* or *Group*

Manually Configuring Enhanced FCI on your Installation

If your SQL Sentry environment does not meet the automatic alignment prerequisites, you can trigger an Enhanced FCI upgrade manually. To manually configure the Enhanced FCI feature set, complete the following steps:

1. Close the SQLSentry Client. Open SSMS and connect to your SQLSentry Database.
2. Execute the following query against the SQLSentry Database:

```
exec WSFC.AlignFailoverClusterInstances 0
```

Executing "exec WSFC.AlignFailoverCluster Instances **0**" will align the FCI nodes with the current active and organize the nodes into applicable groups. Executing "exec WSFC.AlignFailoverCluster Instances **1**" will only align the FCI with its current owner.

3. Open the SQL Sentry client and verify the changes in the Navigator pane.

Success: Your FCI nodes are now aligned with the current owner!

Enhanced FCI Licensing

Watching WSFC targets that are associated to a watched FCI instance will not use additional licenses. This allows you to watch all WSFC nodes associated to an FCI instance, and ensure that you have continuous monitoring and data retention in the event of a failover. It is recommended to watch all nodes associated to a watched FCI instance.

Watching New FCI Targets

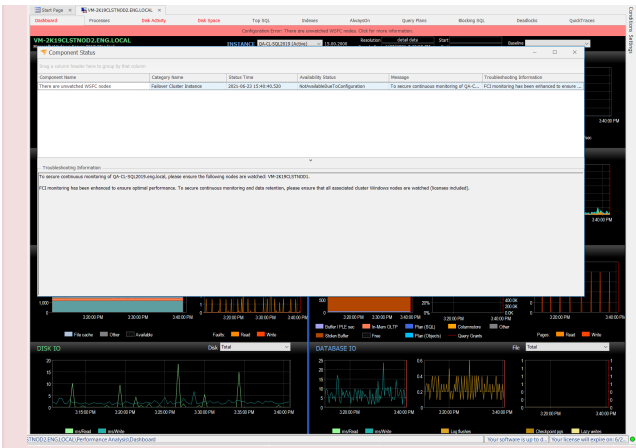
When adding a new FCI instance, you will be prompted to add and watch all possible owners of the instance. Selecting **Yes** adds and watches all possible owners of the FCI. Selecting **No** only watches the current owner.

The screenshot shows the 'Add SQL Server Target' dialog box. The 'Feature Availability' table is expanded to show the following features and their status:

Feature	Results	Details
Monitoring Service: Default Site: LDE		
Monitoring Service Available	●	OK
Windows Dashboard	●	OK
Windows Processes	●	OK
Disk Activity	●	OK
Disk Space	●	OK
Windows Performance Counters	●	OK
VMware Site Compliance	○	N/A

A confirmation dialog box titled 'Watch all FCI nodes?' is overlaid on the main dialog. It contains the following text: 'This SQL Server instance is part of a failover cluster. Do you want all possible owners of this instance to be added and watched? Clicking "No" will only watch the current owner.' The 'Yes' button is highlighted with a red box and a red arrow pointing to it.

Warning: Any unwatched WSFC nodes will prompt a Configuration Error warning message. To ensure continuous monitoring and data retention, it is recommended to add and watch all associated WSFC nodes.



Inactive watched nodes contain both Windows and SQL Server metrics. This allows you to track data retention between nodes in the event of a failover.