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# TC Platform培训 – 高级应用技术 (1) —FSC Store and Forward

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# Contents

# Description

**Purpose**

This lesson describes how to set up Store and Forward functionality.

**Objectives**

After you complete this lesson, you should be able to:

- Describe how Store and Forward works.
- Set up Store and Forward functionality.

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# Store and Forward Overview

- Store and Forward Functionality

Store and Forward means Store and Forward Server, or Default Local Volume Server.

Store and Forward functionality allows files uploaded by end users to be stored temporarily in a default local volume before they are automatically transferred to the final destination volume. This improves upload times for end-users who are not on the same LAN as the final destination volume.

1. End user uploads a file.
1. The file is temporarily stored in a default local volume.
2. After a delay period, the file is automatically copied to the final destination volume.
3. A cleanup task is automatically scheduled to delete the file from the default local volume.
4. At the scheduled time, the cleanup task is initiated and the file is deleted from the default local volume.

# Store and Forward Overview (2)

## Store and Forward Setup Overview

To set up Store and Forward functionality, you must:

1. Install and run the dispatcher client, scheduler, and module. The module must have the **StoreAndForward** and the **FSMTransfer** translators selected.

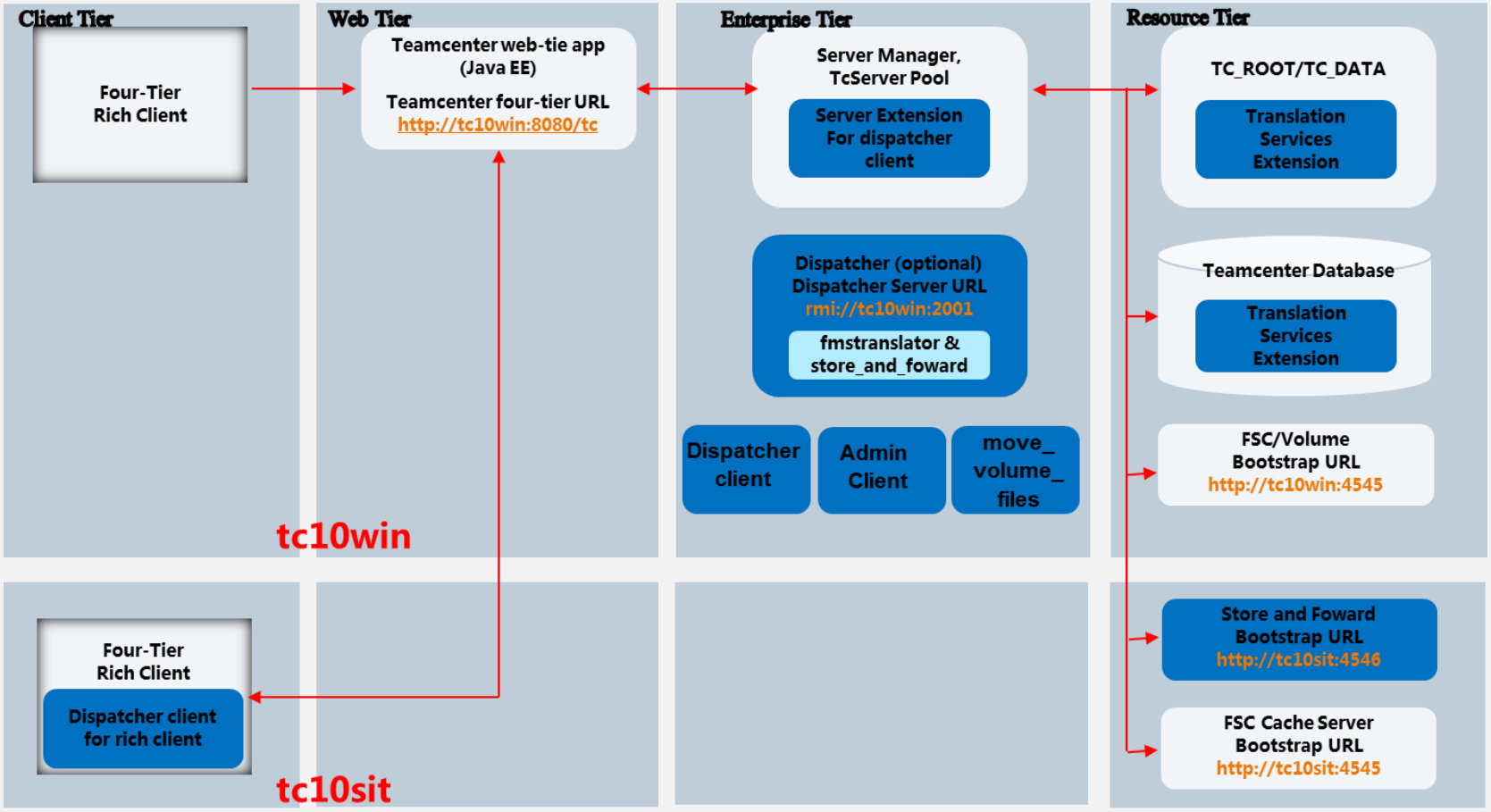
2. Set the **TC_Store_and_Forward** preference to **TRUE** for any users or groups that will make use of the Store and Forward functionality.

3. Create the volumes to use as default local volumes in the **Organization** application. The default local volume should be as close to the users that will make use of them as possible.

4. Set the **Default Local Volume** property for users and groups that is use the Store and Forward functionality.

# Store and Forward Overview (3)

- Components & Architecture



# Store and Forward Overview (4)

- 3 ways to move files to destination volume
  - Sequence Mode with Dispatcher

    Move one file from default volume to the destination volume.

    - The preference **FMS_SAF_Batch_Transfer_Enabled** set to **TRUE**, default is **FALSE**
    - Need to run **Dispatcher Client**
    - The translator **fmstranslator** is used
  - Batch mode with Dispatcher

    Move multi files from default volume to the destination volume.

    - The preference **FMS_SAF_Batch_Transfer_Enabled** set to **TRUE**, default is **FALSE**
    - Need to run **Dispatcher Admin**
    - The translator **store_and_forward** is used
  - Batch mode with Utility

    - Not related to preference **FMS_SAF_Batch_Transfer_Enabled**
    - No need to **Dispatcher Amin or Dispatcher Client.**
    - The utility move_volume_files is used to move files in a corn job.

# Store and Forward Process

- Process Tasks

**Step 1 Import / Initial Check-in**

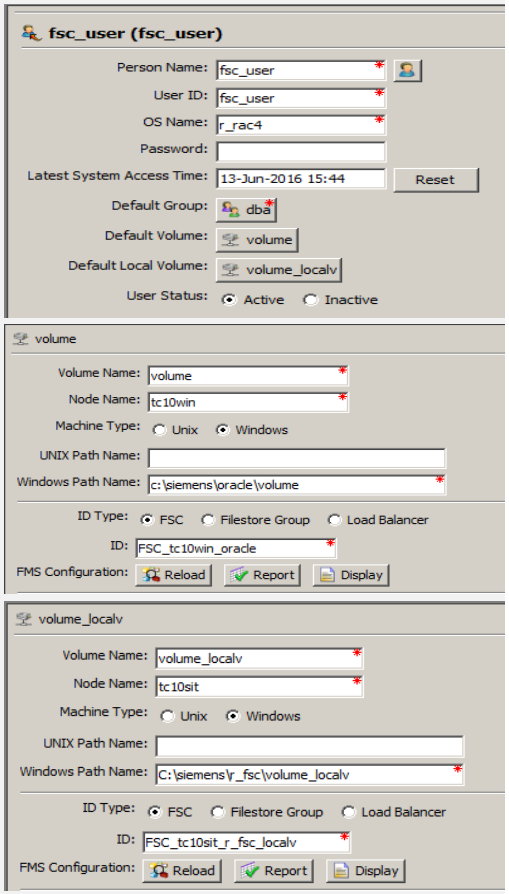
- File moves immediately to the ***local*** default volume
- Database is updated. File is available to all users

**Step 2 – Transfer task (fmstransfer)**

- A task is scheduled with the Teamcenter dispatcher
- This step may be delayed through configuration
- The task transfers the file to the default volume
  - Pull Solution
  - Streaming compression or WAN acceleration
  - Can be configured to only transfer "latest" dataset version
- Task will "retry" automatically on failure

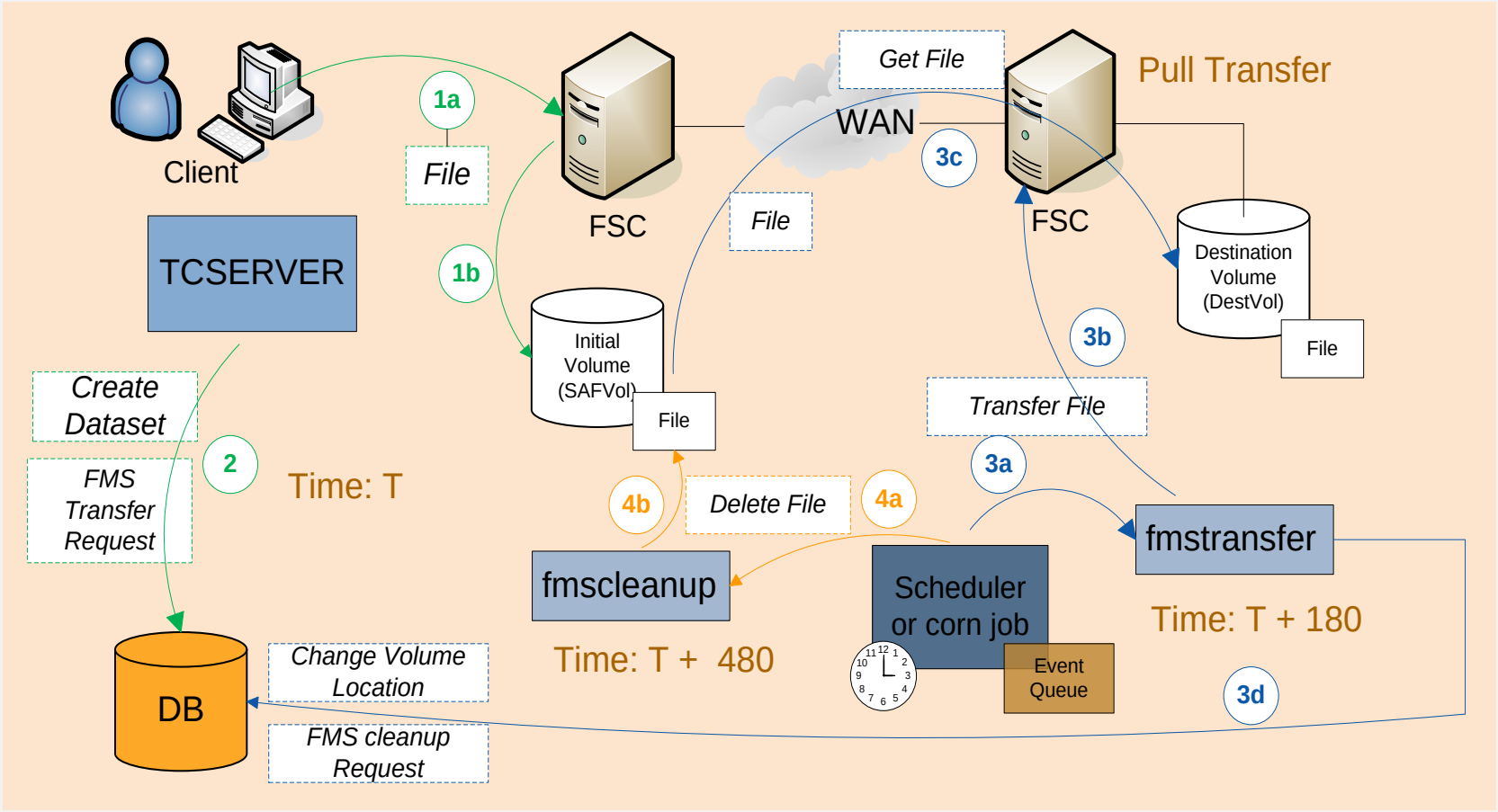
**Step 3 – Cleanup task (fmscleanup)**

- Purge files from the ***local*** default volume
- File remains cached locally, if configured



# Store and Forward Process (2)

- Process Diagram

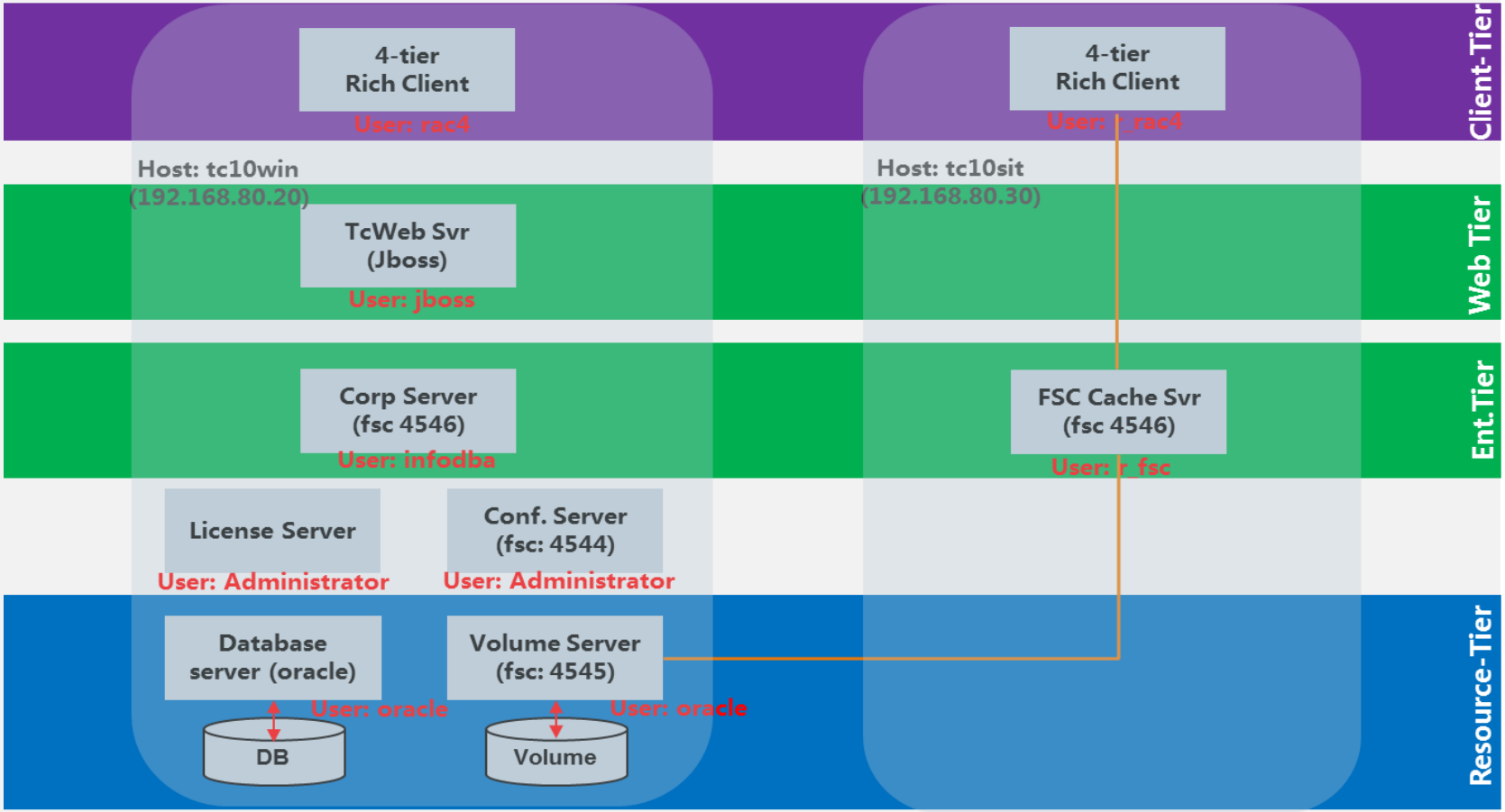


# Store and Forward Process (3)

- Process Details
  - User saves a file into the assigned **default local volume**
    - Volume determined as per TDoc → Using **default local volumes**
  - The system creates a TranslationRequest: fmstransfer → transfer
    - Time scheduled: T + **TC_Store_and_Forward_Transfer_Delay**
  - Dispatcher reads the request
    - In case side caching is enabled, file is cached in FSC
    - Request scheduled
  - Dispatcher client executes **fmstransfer** request at scheduled time
    - File is copied from **default local volume** to the **default volume**
    - Database is updated: file is in **default volume**
    - A new TranslationRequest is created: fmstransfer → cleanup
    - Time scheduled: T + **Ticket_Expiration_Interval**
  - Dispatcher client executes **fmscleanup** request at scheduled time:
    - File in **default local volume** is purged

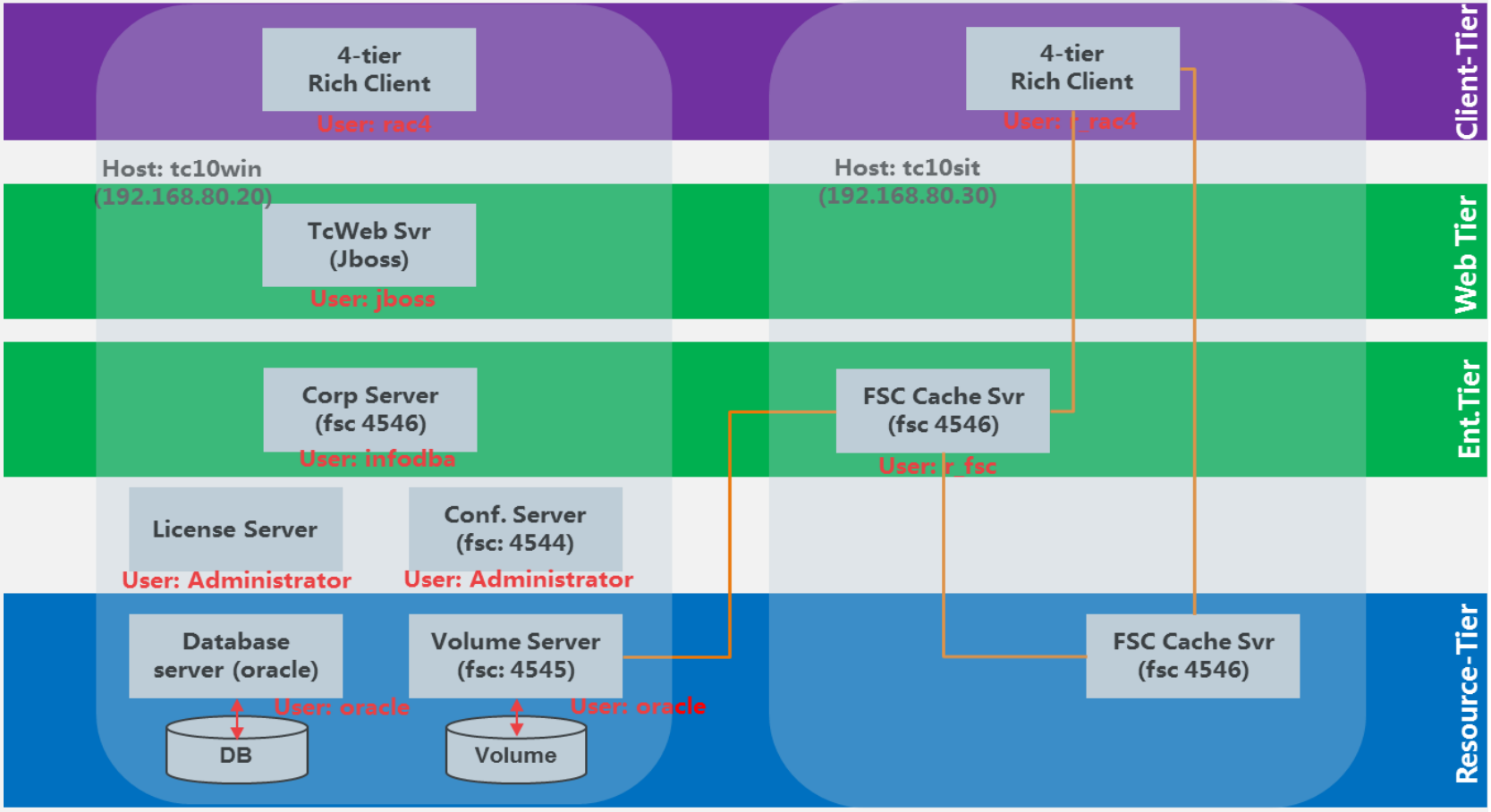
# Setup Store and Forward

- Source System



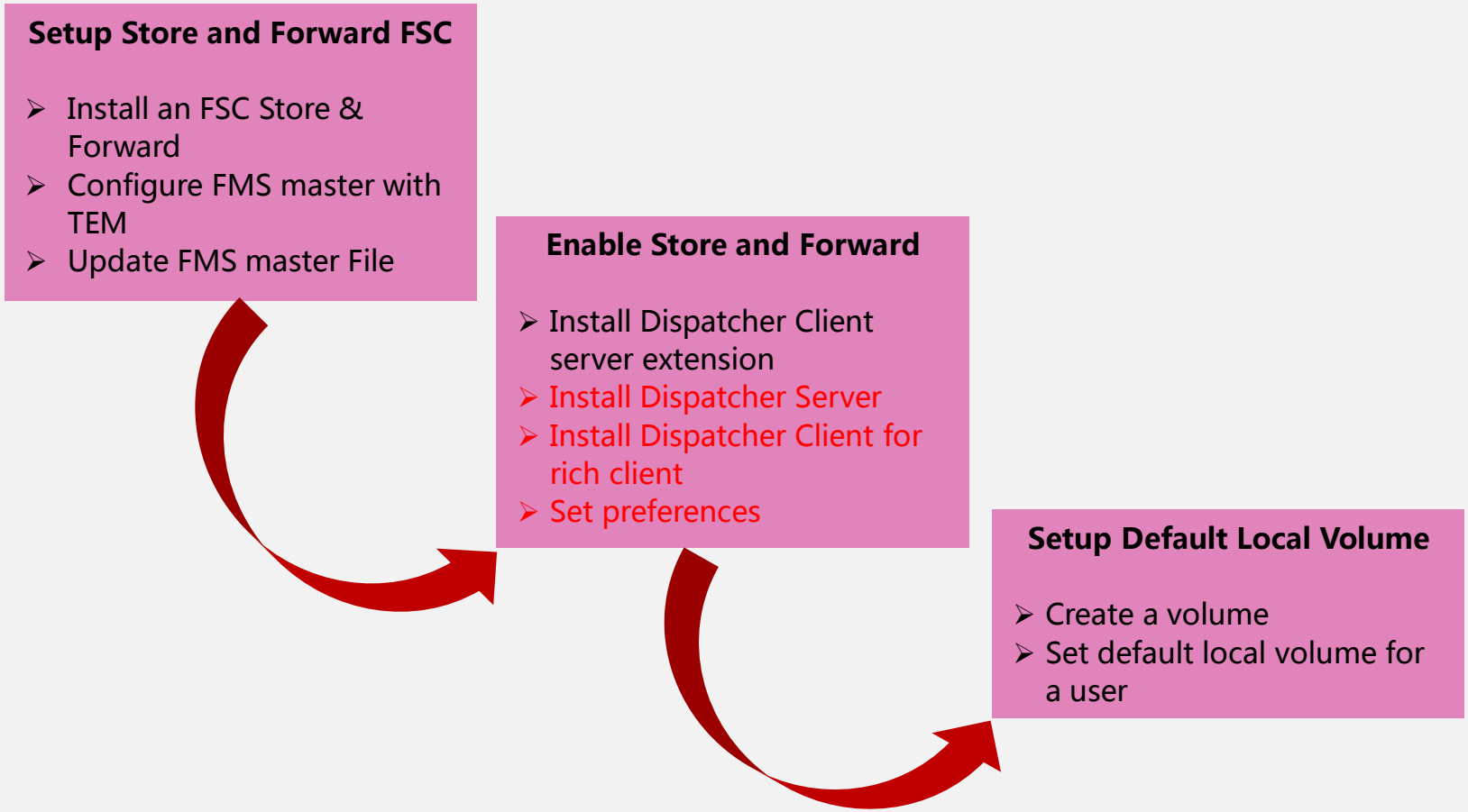
# Setup Store and Forward (2)

- Target System



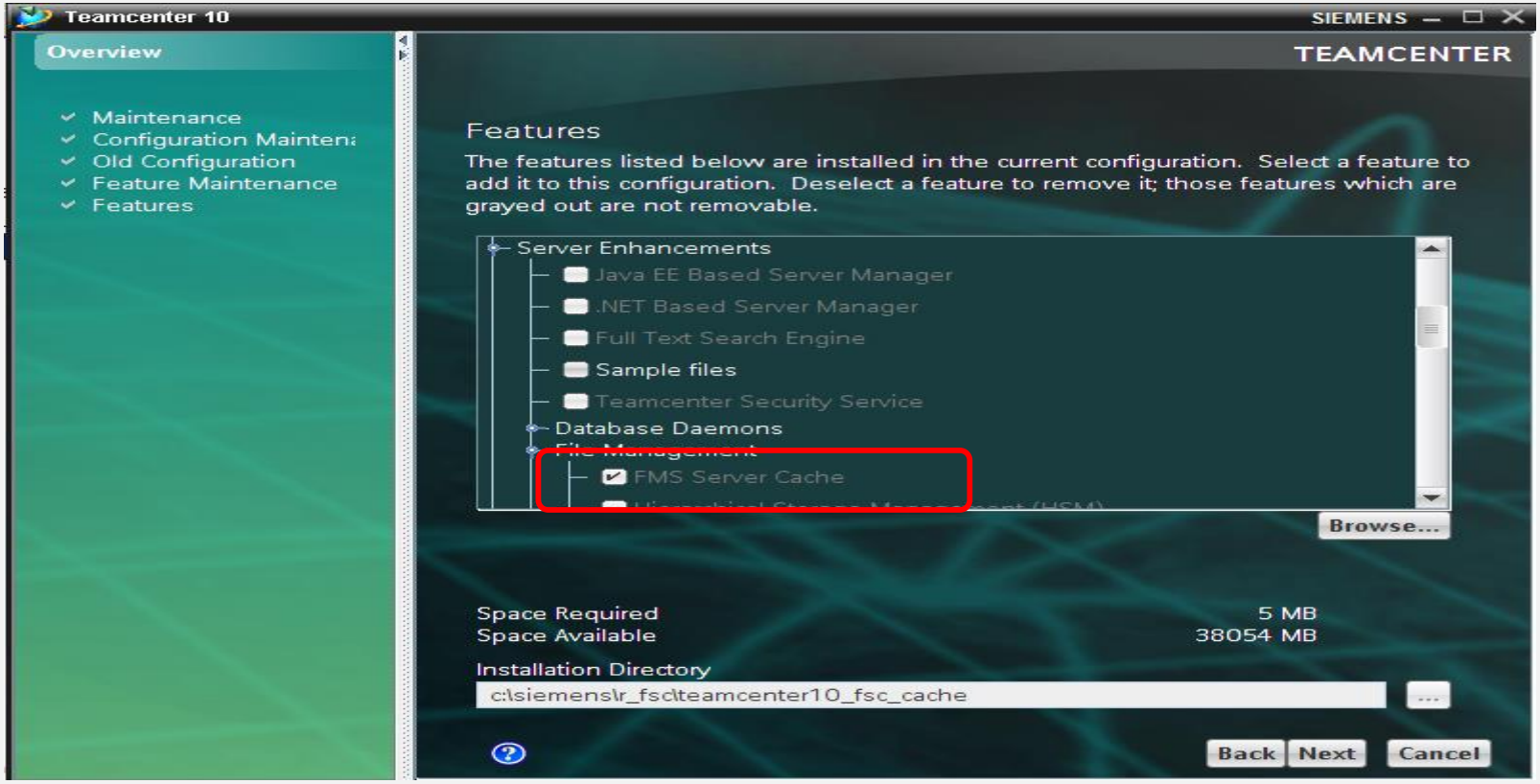
# Setup Store and Forward (3)

- Setup Process



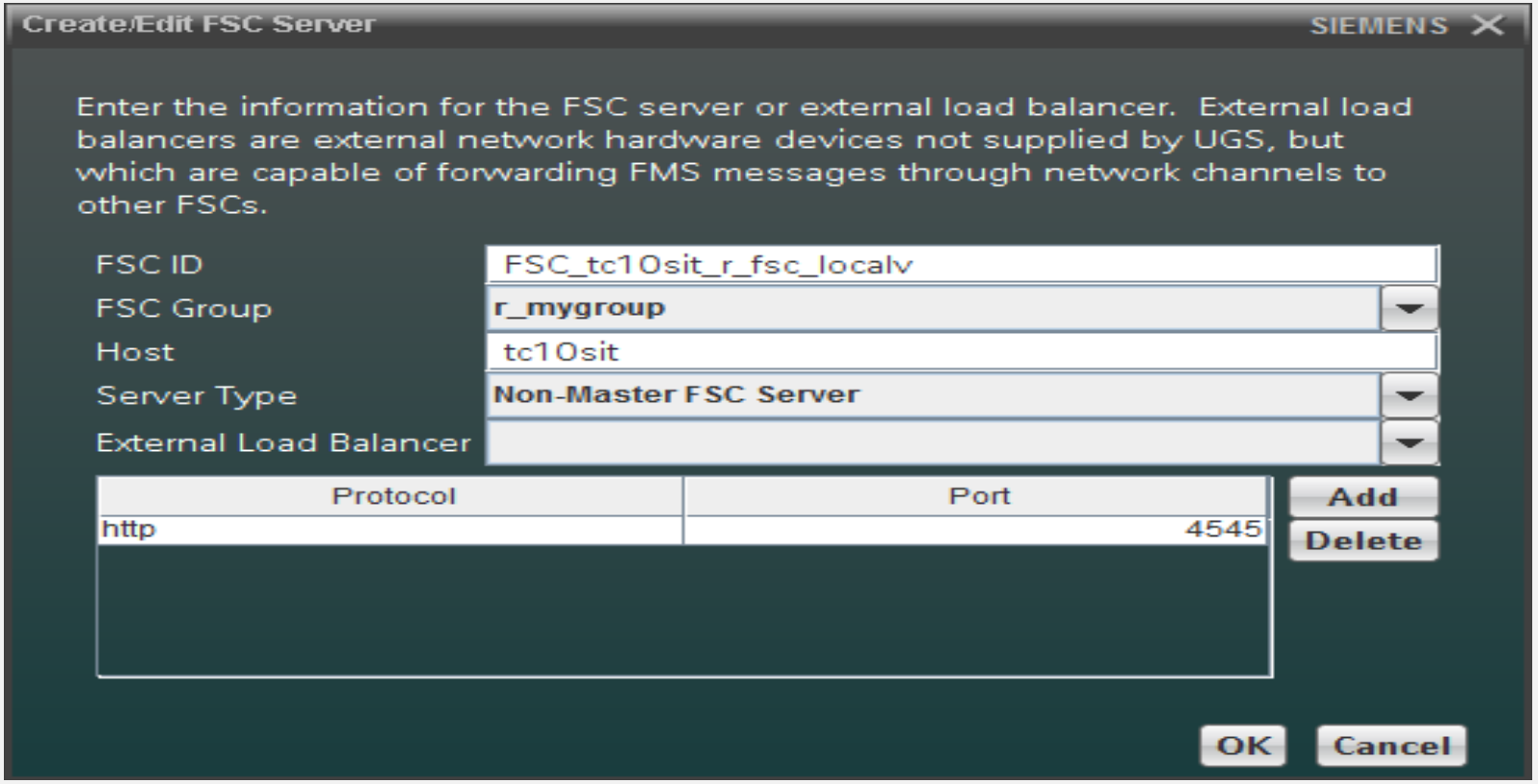
# Setup Store and Forward (4)

- Setup Store and Forward FSC
  - Log on to tc10sit as os user r_fsc/fsc, to install a brand new Teamctner 10 instance with only selecting Server Enhancements->File Management->FMS Server Cache.



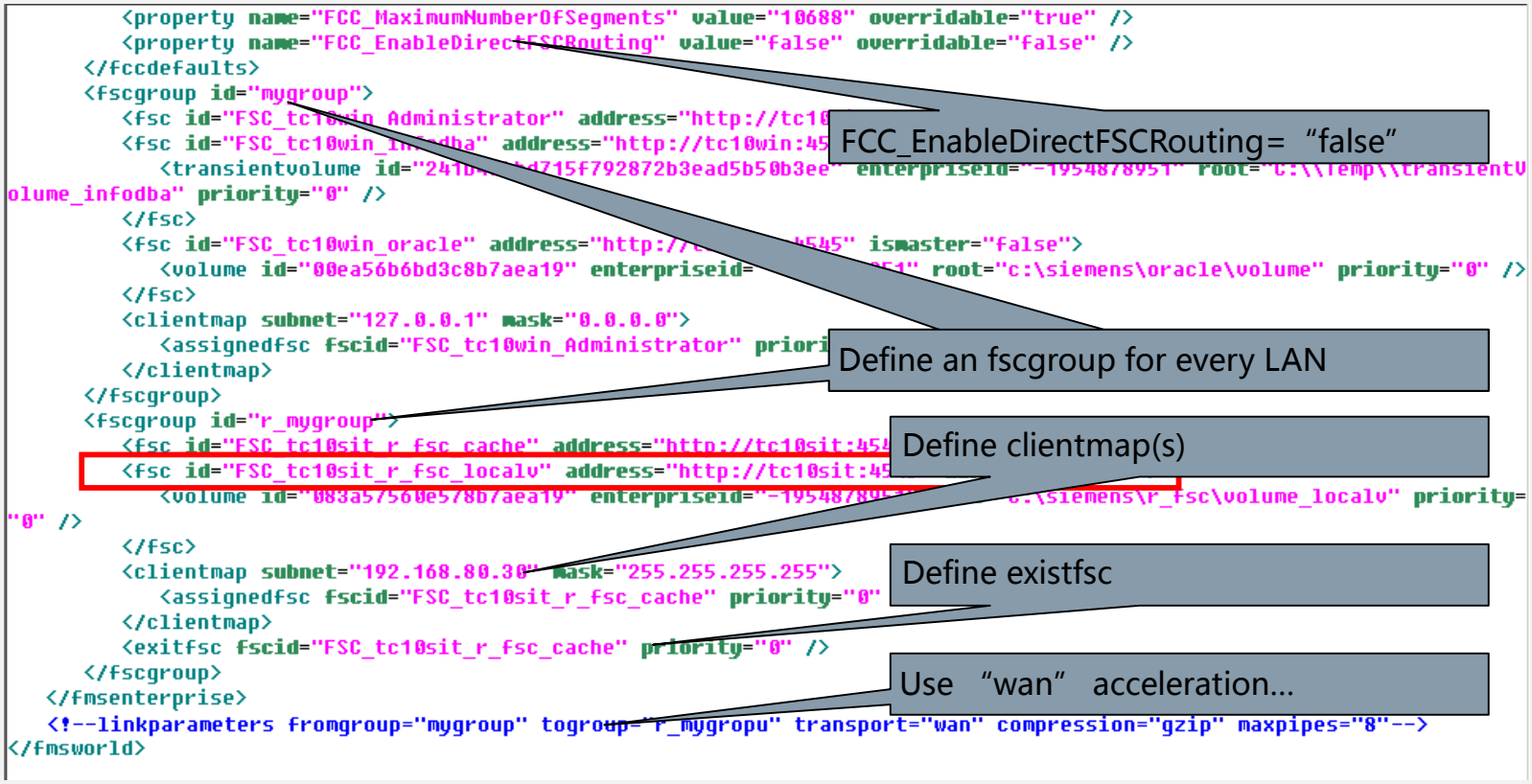
# Setup Store and Forward (5)

- Setup Store and Forward FSC
  - Log on to tc10win as administrator/administrator, run TEM to create a group for tc10sit and add the FSC to the group. If the group already created, just add the FSC to it.



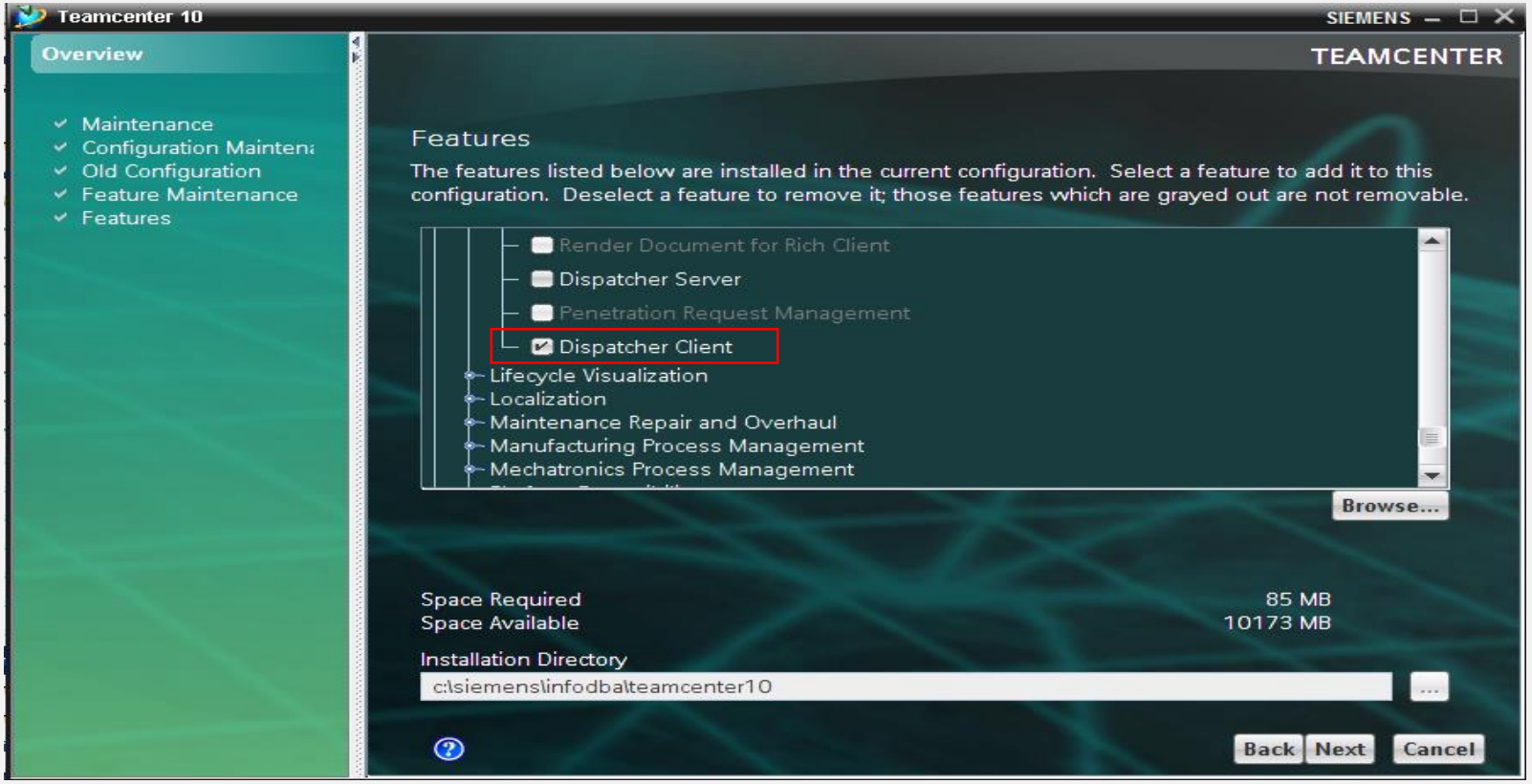
# Setup Store and Forward (6)

- Setup Store and Forward FSC
  - Log on to tc10win as administrator/administrator, verify and/or update FMS master file.



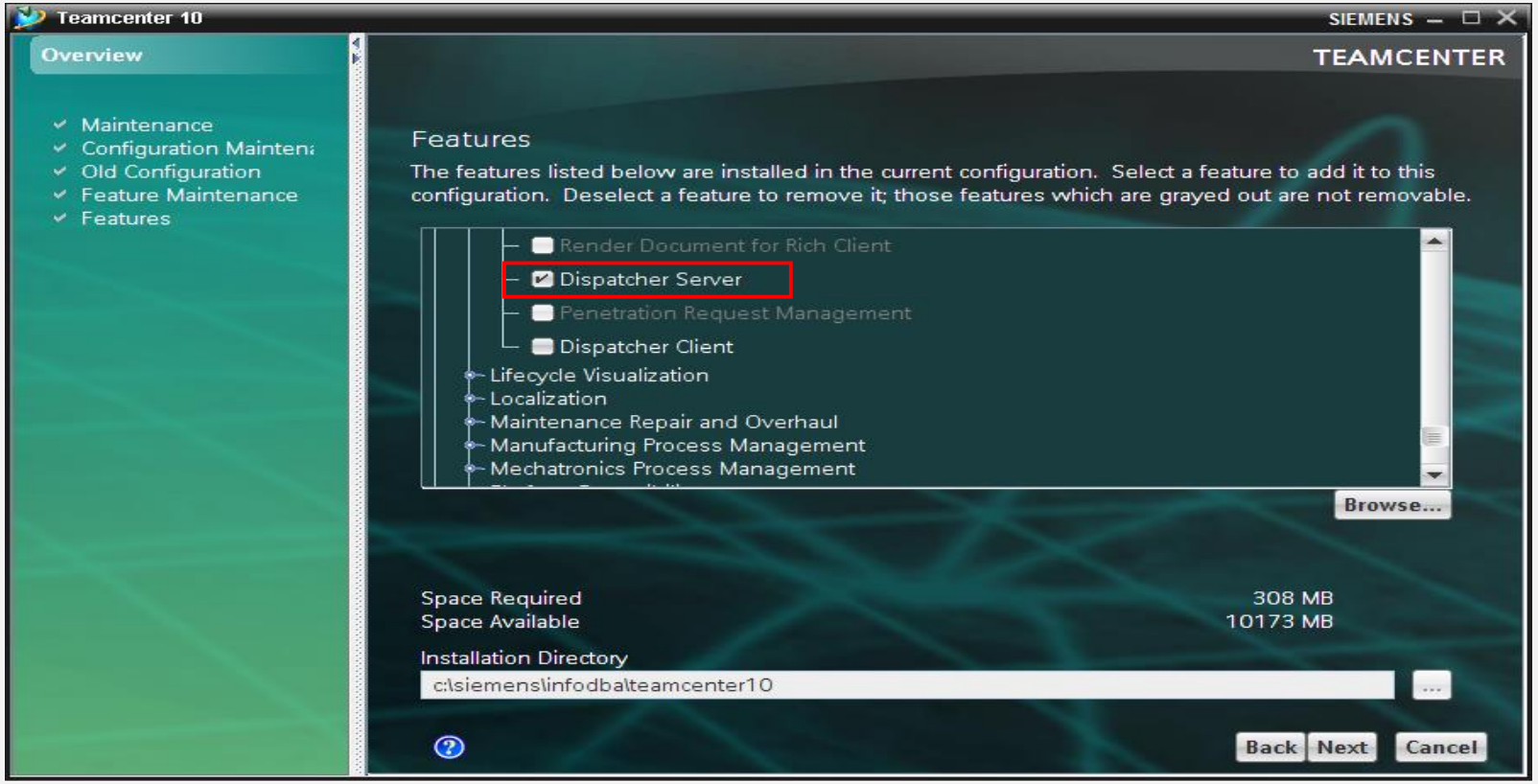
# Setup Store and Forward (7)

- Enable Store and Forward
  - Log on to tc10win as infodba/infodba, to add Dispatcher Client feature (Extensions->Enterprise Knowledge Foundation ->Dispatcher Client) to Teamcenter server installation. It also install Dispatcher client.



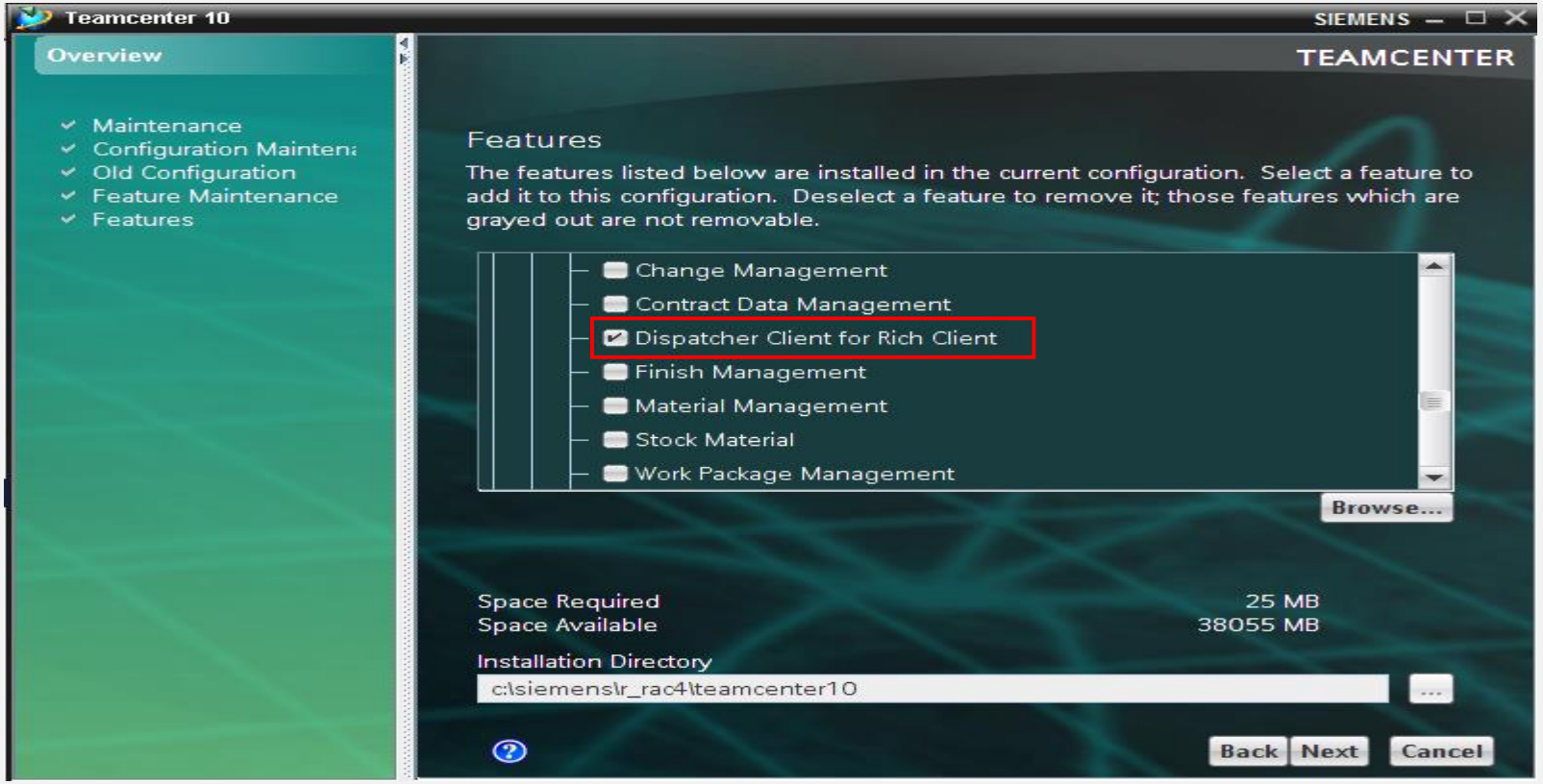
# Setup Store and Forward (8)

- Enable Store and Forward
  - Log on to tc10win as infodba/infodba, to install Dispatcher Server to Teamcenter server installation. It includes Dispatcher Scheduler, Dispatcher Module and Dispatcher Admin Client.



# Setup Store and Forward (8)

- Enable Store and Forward
  - Log on to tc10sit as r_rac4/r_rac4 to install Dispatcher Client for Rich Client on tc10sit.



# Setup Store and Forward (8)

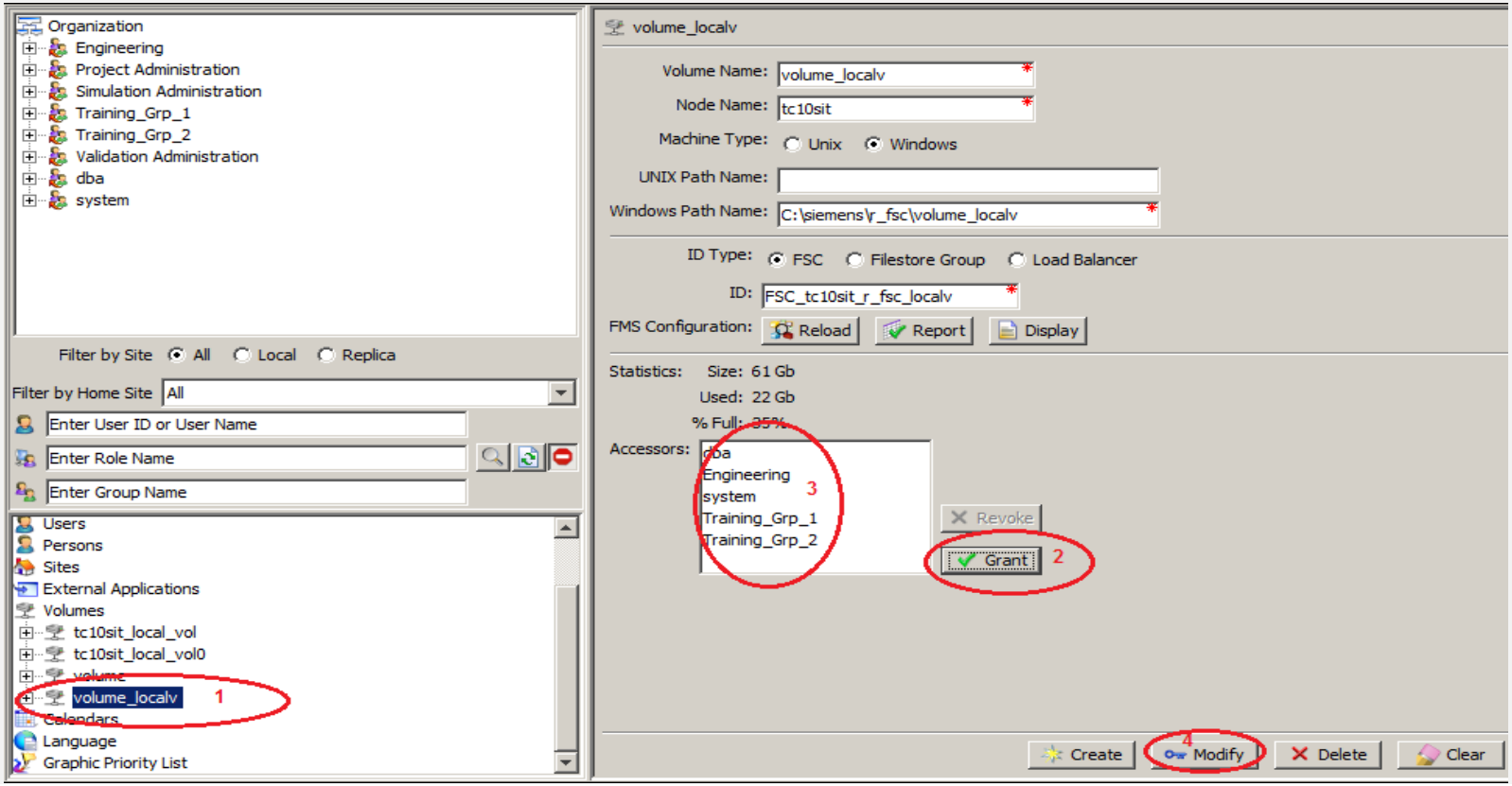
- Enable Store and Forward
  - Run rich client to set the following preferences.
    - Set the **TC_Store_and_Forward** preference to **true**.
    - Set the **TC_Store_and_Forward_Transfer_Delay (optional)** preference to how many minutes file transfer between the initial volume and the destination volume is delayed.

      Delaying the transfer to the final destination volume can improve performance if your site has a high volume of revisions and the delay is long enough to allow a purge of file revisions before the transfer to the final destination volume.
    - Set the **TC_allow_inherited_group_volume_access (optional)** preference to allow subgroups to inherit access to a Teamcenter volume from its parent group.

      If a group is explicitly granted volume access, and this preference is set to a nonzero number, that group's subgroups (and the subgroup's children) are implicitly granted access to that volume.

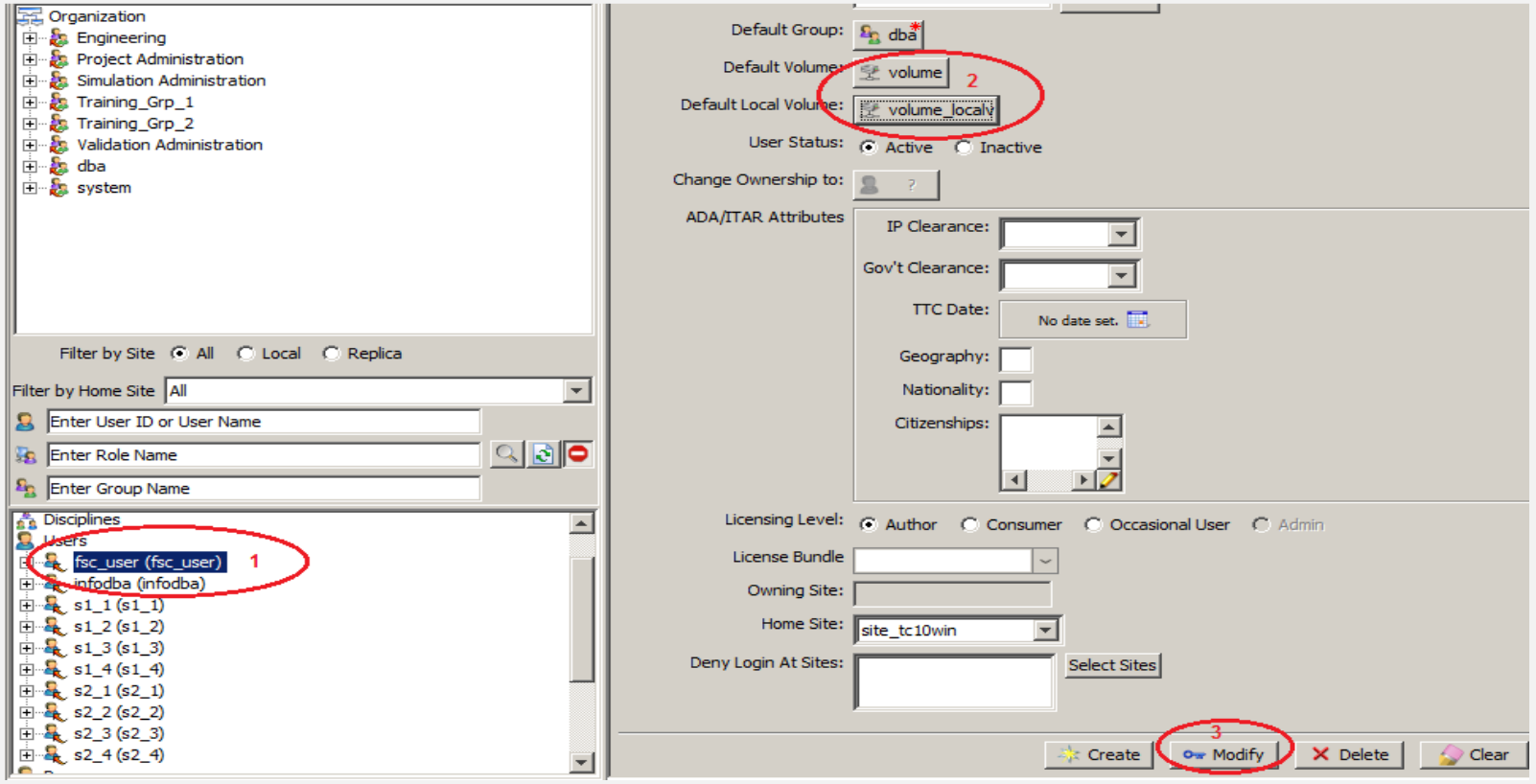
# Setup Store and Forward (11)

- Setup Default Local Volume
  - Run rich client to create volume volume_localv on tc10sit.



# Setup Store and Forward (12)

- Setup Default Local Volume
  - Run rich client to set user fsc_user's default local volume to volume_localv.



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# Move files to volume

- 3 ways to move files to the destination volume.
  - Move with move_volume_files
  - Move with Dispatcher sequence mode
  - Move with Dispatcher batch mode

# Move files to volume (2)

- Move with move_volume_files

Main Steps:

- On tc10win, start Teamcetner servers.
- On tcs10sit, run rich client as Teamctner user fsc_user/fsc_user
- Create a dataset, which will be stored in the default local volume.
- On tc10win, **run move_volume_files** and the dataset will be moved to the destination volume.

# Move files to volume (3)

- Move with Dispatcher sequence mode

The dispatcher server (scheduler and modules) and the dispatcher client should be started. The preference **FMS_SAF_Batch_Transfer_Enabled** should be default or set to false.

Main Steps:

- On tc10win, start dispatcher servers and client (after Teamcenter servers started).
- On tcs10sit, run rich client as Teamctner user fsc_user/fsc_user.
- Create a dataset, which will be stored in the default local volume first and then be moved to the destination volume
- From rich client, run Translator -> Administrator console – ALL, to monitor the status.

# Move files to volume (4)

- Move with Dispatcher Batch mode

The dispatcher server (scheduler and modules) should be started. The preference **FMS_SAF_Batch_Transfer_Enabled** shouid be set to true, and then run dispatcher admin client to move the file.

Main Steps:

- On tc10win, start dispatcher servers (after Teamcenter servers started).
- On tcs10sit, run rich client as Teamctner user fsc_user/fsc_user.
- Create a dataset, which will be stored in the default local volume first.
- On tc10win, run dispatcher admin client to start Store_and_Foward translator. Then, the dataset will be moved to the destination at scheduled time point. The status could be monitored in the dispatcher admin client console.

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# Activities

- In this section of the activities, do the following activities with different os accounts on both tc10win and tc10sit:
  - Install a local volume FSC
  - Update the FMS master
  - Set default local volume
  - Enable Store and Forward
  - Test with utilities
  - Test with dispatcher

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# Summary

- The following topics were taught and practiced in this session.
  - Store and Forward functionality and architecture.
  - Store and Forward process.
  - How to setup Store and Forward.

# Thank you!

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