FUNCTIONAL SPECIFICATION DOCUMENT
FOR
PART RETURN MANAGEMENT

TAVANT WARRANTY MANAGEMENT SYSTEM FOR HVAC SBUS (CS, RS, PARTS)

VER 1.0JAN 22, 2016

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Revision History			
Name	**Date**	**Reason for Changes**	**Version**
Raghu Ram D	**Dec 15, 2015**	**Initial Draft version**	**0.1**
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Kirk Spencer	**Jan 22, 2016**	**Approved by Jean Skemp, Robyn Ward, and Tim Nelson**	**1.0**

Approvals: This document requires the following singed

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1 INTRODUCTION

Tavant is working with HVAC to customize Tavant Warranty Management Solution as per Trane's requirements. This document provides business requirements for managing Part Returns in new Trane Warranty System.

This document describes the part return workflow and part return configurations.

1.1 PURPOSE

Document the detailed solution of Part Return Management for Tavant System

1.2 SCOPE

This document covers following information for each business requirement related to Part Return setup:

a. AS-IS Functionality – Current process explanation.
b. To-Be Process for Trane.
c. Requirements – Itemized and Verifiable High Level Business Requirements.

1.3 DEFINITIONS, ACRONYMS AND ABBREVIATIONS

Abbreviation	Description
TWMS	Tavant Warranty Management System
PR	Part Return
DISTRIBUTOR	Who files Claim, Trane Parts Store, IWD, American Standard Dist.
PRC	Part Return Configuration
NA	North America
EMEIA	Europe, Middle East, India and Africa
WRC	Warranty Return Centre
3rd Party	Residential Dealer (Installing Contractor)
Processor	Tavant term for the employee with an LOA to pay claims (Trane calls these Claim
Warranty Administrator	Tavant term for person who can do the system configuration or set up

1.4 REFERENCES

Business Requirement Document:

2 SYSTEM FEATURES

Functional Requirements for the following system features are described in detail

2.1 PART RETURN CONFIGURATION

2.1.1 Requirements

RTM No	Use Cases	Summary
PRM-PC-01	1,2	PRC setup can be done for a specific part or a group of parts for a given dealer/dealer group (Distributor), claim type, product and warranty type.
PRM-PC-05	1,2	PRC on a part is fetched based on the date of claim. Date of claim must be within the period for which PRC is defined.
PRM-PR-15	1,2	Provision to proactively raise a parts return request for a combination of Part #, Model / Product family, Unit model #, Unit Install date range, Part Build date range. Note: Applicable only for RS.
PRM-PR-16	1,2	Provision to have a duration (end date) for the proactive parts return request and the parts match logic should run based on this input. (Claim Date Applicable) Note: Applicable only for RS.
PRM-PR-17	1,2	Provision to inactivate a proactive parts return request manually even before the scheduled end date of the request. Note: Applicable only for RS.
PRM-PR-56	1,2	Requester, comments and reason for the admin purpose. This is a place holder and there is no logic involved. Requestor is captured on the PRC Configuration. This is need for Business to understand who has requested the PRC (Trane Personal like Quality, etc.)
PRM-PC-04	3	Admin should be able to export the entire PRC

Functional Design – Use Cases

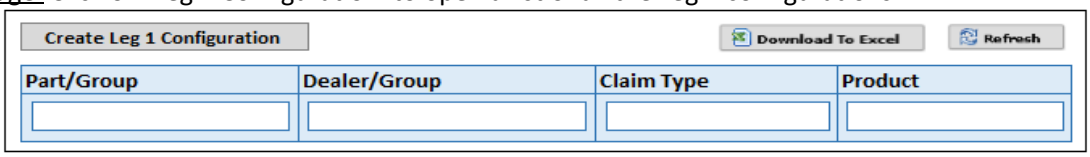
Use Case # 1	2.1.2 Part Return Configuration for LEG-1
Description	1. Part return configuration for Leg1 is to configure part to be returned by the Third Party to the distributor. 2. Warranty admin can setup a part to be returned whenever that part is removed. The setup can be done for a specific part or a group of parts for a given Distributor Group, claim type, Product Family, Model, Item and warranty type. 3. PRC on a part is fetched based on the date of claim. Date of claim must be within the period for which PRC is defined. 4. Requester, comments and reason for the admin purpose.
Business Values	This will enable business to deal with Part returns from 3rd Party to Distributor more efficiently. This will give more flexibility to business to decide if 3rd Party is exempted or not.
Actors	Warranty Admin, Distributors, 3rd Party
Current Process/ Functionality in TWMS	Not Applicable. Currently there is no 3rd Party returns in TWMS. This Leg1 process is done out of Tavant.

Proposed Flow

1. System BU Configuration (This is from Backend)
   a. Name: '**Enable third parties and related functionalities'.**
   b. Description: Enable/disable the third party related functionality
   c. Section: None (not available on UI for warranty admin)
   d. Setup: Yes for HVAC TCP & RS HVAC, No for the rest of the business units

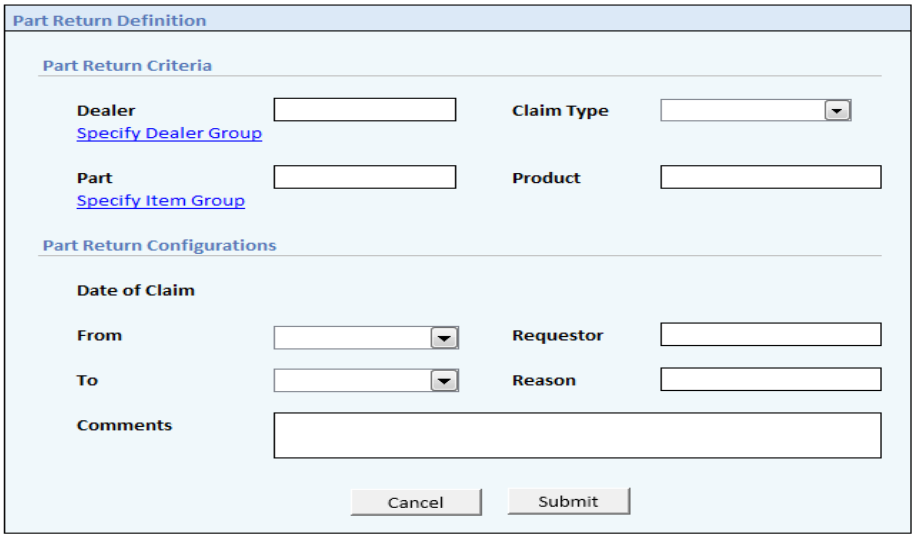
   Note: For CS, there is no Leg1 configuration required.
2. Navigation: When the BU configuration 'Enable third parties and related functionalities' is set to Yes, the 'Part Return Configuration' link under the Warranty Admin tab on the left navigation menu will expand to display 2 links
   a. Leg 1 Configuration
   b. Leg 2 Configuration

   Note: For CS also both the options will be displayed. However, Leg 1 setup will not be done as Leg 1 is not applicable. Only Leg 2 setups will be done.
3. Listing Page: Click on 'Leg 1 Configuration' to open a list of all the Leg 1 configurations



   a. Columns displayed
      i. Part Number / Group Name
      ii. Dealer / Dealer Group
      iii. Claim Type
      iv. Product
   b. Sorting and filtering is allowed on all the columns

4. Create: Click on 'Create Leg 1 Configuration' on the listing page to create a new Leg 1 configuration



   a. Part Return Criteria
      i. Dealer or Dealer Group
      ii. Part or Part Group
      iii. Claim Type

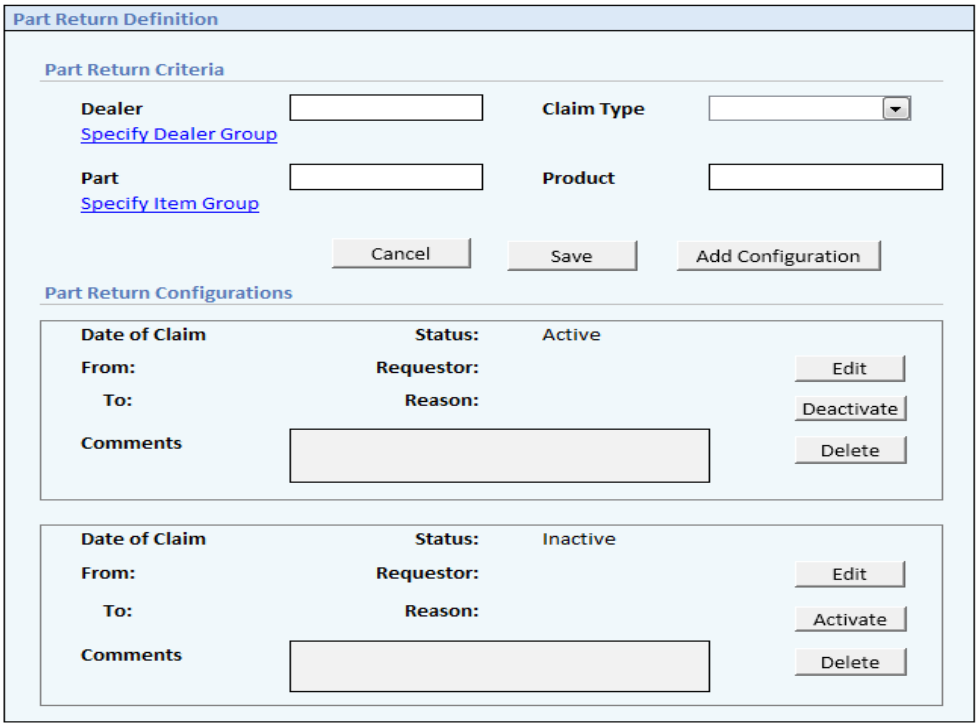
iv. Product

b. Part Return Configuration
   i. Date of Claim – From & To
   ii. Requester
   iii. Reason
   iv. Comments

c. Submit button: Save the configuration and display the detail page with a success message

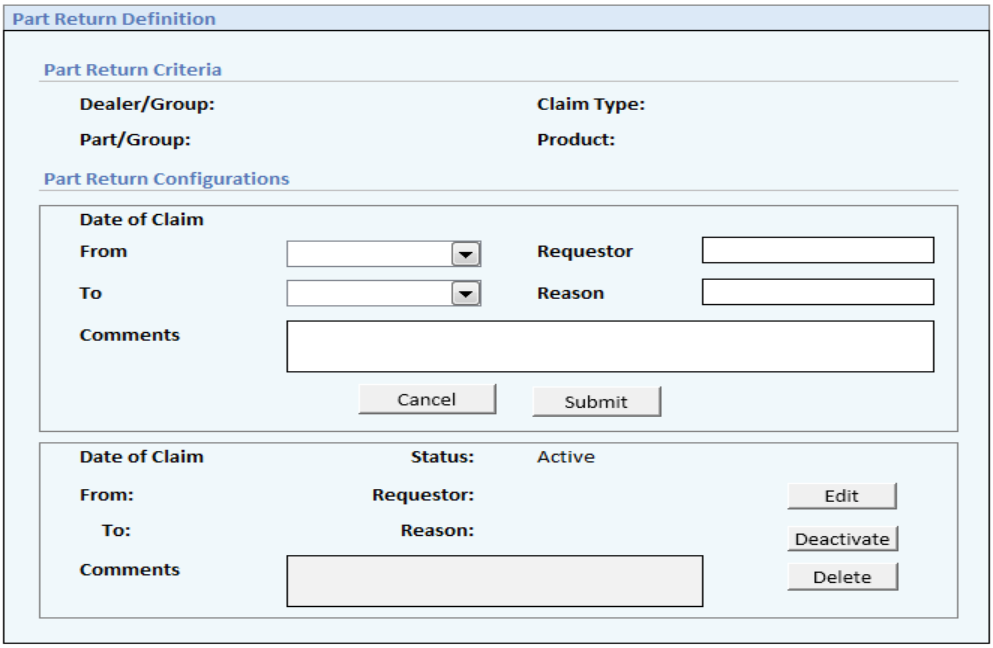
d. Cancel button: Close the tab

5. Detail Page: Double click on a configuration from the listing page to open the detail page



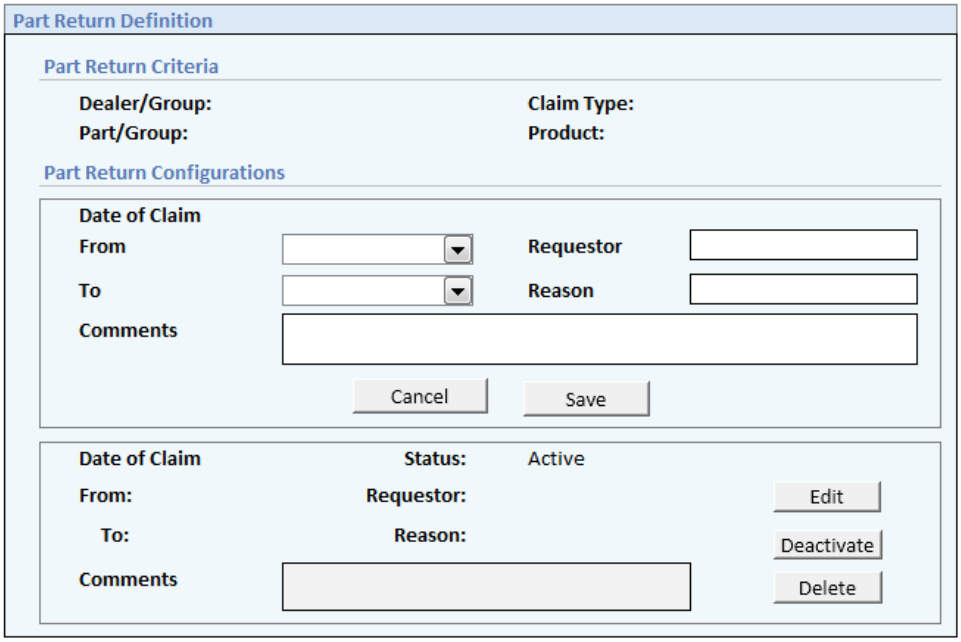
a. Part Return Criteria is displayed in edit mode.
   i. Criteria can be modified and click on save button to persist the changes done
   ii. Cancel button to close the details page

b. Add Configuration:
   i. Submit: Create a new configuration on submit and display the detail page
   ii. Cancel: back to detail page



c. A list of part return configurations in read only mode. Each configuration has 3 buttons to perform the following actions

i. Edit: Only the configuration to be edited will be displayed in edit mode. Click Save to persist changes and display the detail page. Click Cancel to go back to detail page.



ii. Activate/Deactivate: Activate or Deactivate the configuration and refresh the detail page

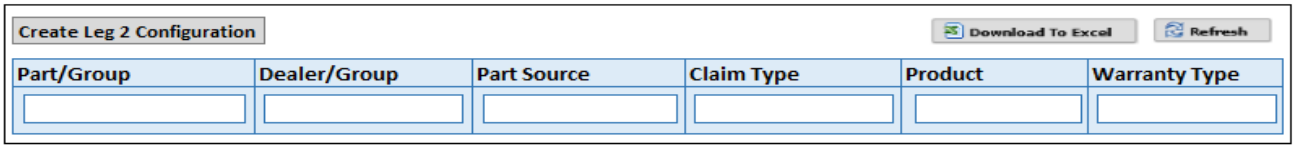
iii. Delete: Delete the configuration and refresh the detail page. Do not allow delete when there is only 1 configuration.

Impact on existing BUs	The BU flag 'Enable third parties and related functionalities' will be turned ON for CS and RS and it will be off for all other business units (from back end). So no impact for other BU.
Assumptions and Dependencies	If there is part return from 3rd Party directly to Trane(OEM), then it will be taken care by the Distributor. There will not be any special functionality in TWMS. Distributor will be marking the Part return status in TWMS (Leg2).
Business Priority	High
References/Expectations	None.
Notes	Leg 1 related features will be enabled only if Warranty Admin configures Leg1 configurations in the system. Else Leg1 will not be applicable (which holds good for CS)
Use Case # 2	**2.1.3 Part Return Configuration for LEG-2**
Description	1. Warranty admin can setup a part to be returned whenever that part is removed. The setup can be done for a specific part or a group of parts for a given Distributor Group, claim type, Product Family, Model, Item, Part Source (is replacement part a Pride part, or Tyler, from Asia, etc.) and warranty type. 2. The part return configuration in Tavant must take into consideration the Part Source. Part source will need to be a parameter in the part return configuration 3. The period for which the configuration is valid. Claim date entered must be within this period. (Note: Here Date of Claim is nothing but the Claim Submitted Date.) 4. Requester, comments and reason for the admin purpose. This is a place holder and there is no logic involved. Requestor is captured on the PRC Configuration. This is need for Business to understand who has requested the PRC (Trane Personal like Quality, etc.)
Business Values	This will enable business to deal with Part returns from Distributor to Trane(OEM) more efficiently. This will give more flexibility to business to decide if Distributors have to return the part or not.
Actors	Warranty Admin, Distributors
Current Process/ Functionality in TWMS	1. Leg 2 return from distributor to OEM is the only mode of return that can be currently configured in TWMS. 2. Part Return Criteria is set up based on the following fields a. Part/Part Group b. Dealer/Dealer Group c. Claim Type d. Warranty Type e. Product 3. Each part return criteria can be associated with multiple part return configurations. A configuration is defined by the following parameters a. Applicable window period (Date of Service to be within this window period) b. Covered by Contract c. Only if Causal Part d. Payment Condition e. Return Location f. Days Due Within

g. Maximum Quantity
h. Quantity Received

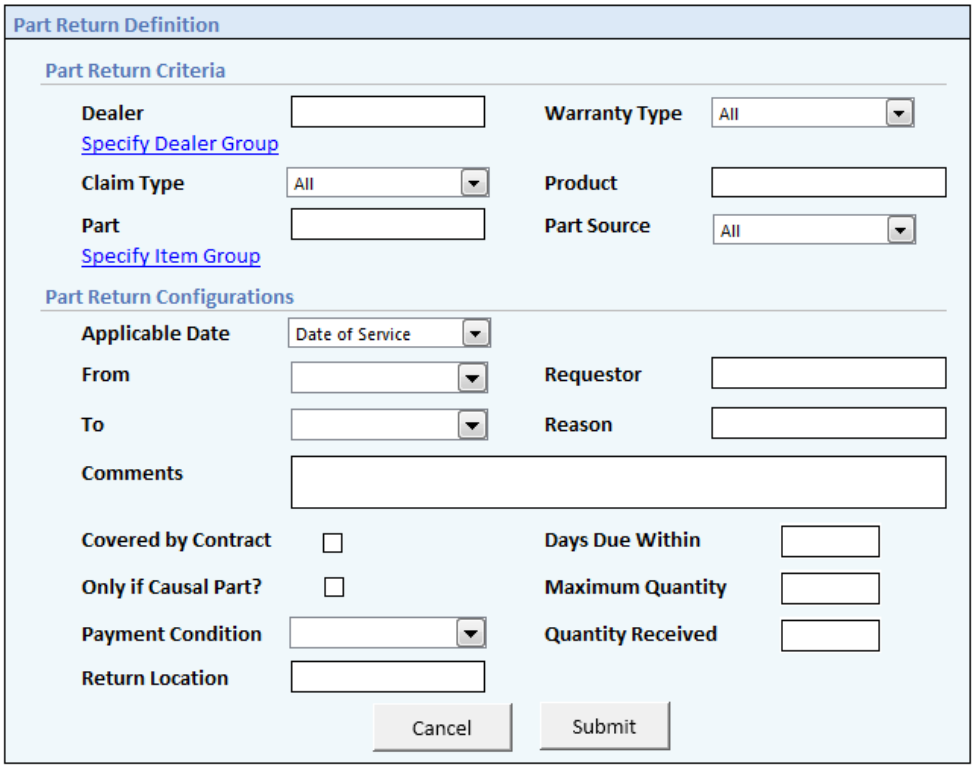
Proposed Flow

1. Navigation:
   a. When the BU configuration 'Enable third parties and related functionalities' is set to Yes, the 'Part Return Configuration' link under the Warranty Admin tab on the left navigation menu will expand to display 2 links
      i. Leg 1 Configuration
      ii. Leg 2 Configuration
2. Listing Page: Click on 'Leg 2 Configuration' to open a list of all the Leg 2 configurations



   a. Columns displayed
      i. Part Number / Group Name
      ii. Dealer / Dealer Group
      iii. Part Source
      iv. Claim Type
      v. Product
      vi. Warranty Type
   b. Sorting and filtering is allowed on all the columns

3. Create: Click on 'Create Leg 2 Configuration' on the listing page to create a new Leg 2 configuration



a. Fields added to Part Return Criteria
   i. Part Source
b. Fields added to Part Return Configuration
   i. Applicable Date: Date to be checked for PRC applicability
      1. Date of service
      2. Date of Claim
   ii. Requester
   iii. Reason
   iv. Comments
c. Submit button: Save the configuration and display the detail page with a success message
d. Cancel button: Close the tab

Note: Here Date of Claim is nothing but the Claim Submitted Date.

4. Detail Page: Double click on a configuration from the listing page to open the detail page
   a. Part Return Criteria is displayed in edit mode.
      i. Criteria can be modified and click on save button to persist the changes done
      ii. Cancel button to close the details page
   b. Add Configuration:
      i. Submit: Create a new configuration on submit and display the detail page
      ii. Cancel: back to detail page
   c. A list of part return configurations in read only mode. Each configuration has 3 buttons to perform the following actions
      i. Edit: Only the configuration to be edited will be displayed in edit mode. Click Save to persist changes and display the detail page. Click Cancel to go back to detail page.
      ii. Activate/Deactivate: Activate or Deactivate the configuration and refresh the detail page

iii. Delete: Delete the configuration and refresh the detail page. Do not allow delete when there is only 1 configuration.

Impact on existing BUs	Enhancement • Non HVAC business units can continue to use the same functionality that exists today. • Additional fields that appear on PRC o Part Source: LOV setup for each BU. All the existing BUs will have only one part source (R12 or R11). So the end result would be the same whether the admin selects or does not select the Part Source o Applicable Date: Will be date of service by default, which is the current functionality o Requester, Reason & Comments: Additional information that can be captured. No business logic based on these fields and are optional • Layout of the fields on the part return configuration has been modified for better visibility. • This change in layout has also resulted in a change in the way Part return Configurations are added/updated/deleted. This change is supposed to improve the usability as well.
Business Priority	High
References/Expectations	None
Notes	If the Installed Part is not same as Removed part – Manual Review – for CS This can be controlled through Claim Processing rules.
Use Case # 3	**2.1.4 Export PRC to Excel (LEG-1 and LEG-2)**
Description	1. Warranty admin can setup a part to be returned whenever that part is removed. The setup can be done for a specific part or a group of parts for a given Dealer (Distributor) Group, claim type, Product Family, Model, Item, Part Source (is replacement part a Pride part, or Tyler, from Asia, etc.) and warranty type. 2. The part return configuration in Tavant must take into consideration the Part Source. Part source will need to be a parameter in the part return configuration 3. The period for which the configuration is valid. Claim date entered must be within this period. 4. Requester, comments and reason for the admin purpose. This is a place holder and there is no logic involved. Requestor is captured on the PRC Configuration. This is need for Business to understand who has requested the PRC (Trane Personal like Quality, etc.)
Business Values	With the help of Export feature, it will be easy for business to Manage the Part return Configuration/Setup as it will be in Excel format.
Actors	Warranty Admin
Current Process/ Functionality in TWMS	Export to excel on the PRC extracts only those fields which are part of part return criteria 1. Part/Group 2. Dealer/Group 3. Claim Type 4. Warranty Type 5. Product

Proposed Flow

1. Only those fields which are part of the part return criteria are displayed on the listing pages of both Leg 1 & Leg 2 configurations.
2. But the download to excel will include fields from the part return configurations along with the fields from part return criteria.
3. The filtering applied on the part return criteria in the listing pages is also applied to the data exported to excel.
4. When a part return criteria is associated with multiple configurations, the criteria will be repeated for each configuration in the downloaded excel.
5. Fields exported to excel for Leg 1 PRC
   a. From criteria
      i. Part/Group
      ii. Dealer/Group
      iii. Claim Type
      iv. Product
   b. From configuration
      i. From Date
      ii. To Date
      iii. Requester
      iv. Reason
      v. Comments
6. Fields exported to excel for Leg 2 PRC
   a. From criteria
      i. Part/Group
      ii. Dealer/Group
      iii. Claim Type
      iv. Product
      v. Warranty Type
      vi. Part Source
   b. From configuration
      i. Applicable Date
      ii. From Date
      iii. To Date
      iv. Requester
      v. Reason
      vi. Comments
      vii. Covered by Contract
      viii. Only if Causal Part
      ix. Payment Condition
      x. Return Location
      xi. Days Due Within
      xii. Maximum Quantity
      xiii. Quantity Received

Impact on existing BUs	This will be applicable for all the BUs Enhancement • Additional capability of downloading all the attributes/parameters on the part return

	configuration.
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	Need to have ability to export Requestor

2.2 THIRD PARTY MAINTENANCE

2.2.1 Requirements

RTM No	Use Cases	Summary
CLM-CS-155	1,2,3	Provision to maintain a 3rd party exception list for first leg returns (3rd Party to Distributor return). Warranty administration can define 3rd party that are except from the mandatory return. Maintain 3rd Party in Tavant. Manually upload in Tavant (3rd Party upload). Can have exemption flag on Upload. This will be used to configure PRC.

Functional Design – Use Cases

Use Case # 1	2.2.2 Third Party Upload
Description	Ability to upload third parties to TWMS through excel spread sheets
Business Values	Third party Dealers/Installers can be directly Uploaded into Tavant with this feature.
Actors	Warranty Admin
Current Process/ Functionality in TWMS	Third parties can be uploaded using customer upload like any other Dealer (Distributor). The following information is uploaded for a third party – Name, Number, Address and Site Number.

Proposed Flow

1. A part of the third parties are sourced from R12 through customer sync. In addition to this some third parties are to be maintained within Tavant. Setup a mapping between business unit and the third party source.

Entity	Business Unit	Master Source
Third Party	HVAC TCP	Tavant
Third Party	RS HVAC	Tavant
Third Party	HVAC TCP	Oracle R12
Third Party	RS HVAC	Oracle R12

2. An option to upload third parties will be available for Warranty Admin on the upload management page.
3. The upload is mapped only with the HVAC business units. In turn this is again RS and CS specific.
4. The following field will be available for third party upload

Field	Validations	Data Type	Description
Third Party Number	1. Mandatory 2. Unique across all 3rd parties for a given source	Text	Unique number for third parties mastered within Tavant
Third Party Name	Mandatory	Text	Third Party name as to be seen on Tavant User Interface.
Preferred Dealer	1. Optional 2. Valid Dealer (Distributer) number existing in Tavant	Text	Preferred Dealer (Distributer) number for Third Party
Is Exempted	1. Mandatory 2. Valid values : Y/N	Text	Field indicates whether Third Party is exempted from part return (Leg-1). If third party is exempted the value should be entered as "Y". The default value is "N".
First Name	Optional	Text	First Name of contact Person for Third Party
Last Name	Optional	Text	Last Name of contact Person for Third Party
Address Line 1	Optional	Text	
Address Line 2	Optional	Text	
City	Optional	Text	
State	Optional	Text	
Country	Optional	Text	Country of the Third Party. The 2-digit country code as in Oracle. This is an ISO standard.
Zip Code	Optional	Text	
Phone	Optional	Text	
Fax	Optional	Text	
Email	Optional	Text	

5. Excel template used for the upload. The template can be downloaded by clicking on the 'Third Party' link on the Upload Management page.

ThirdParty Upload.xls

6. For any third party created from excel upload
   a. Master = Tavant
   b. Source = Upload
7. A combination of Third Party Number and Master is the primary key for third party.
8. If a third party number already exists for the master source, upload of that third party fails.
9. Validations

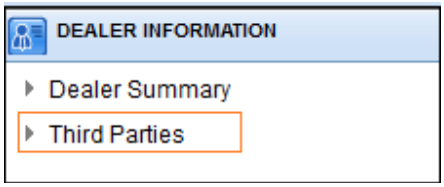
Field	Validation	Error Message
Third Party Name	Mandatory	Third Party Name is required
Third Party Number	Mandatory	Third Party Number is required
Preferred Dealer	When provided, must be a valid Dealer (Distributer) number which exists in Tavant	Preferred Dealer (Distributer) number not valid

	and is associated with the BUs mapped with the master source (in this case both HVAC BUs are mapped to Tavant for Third Parties)	
Is Exempted	When provided must be 'Y' or 'N'	Is Exempted is not valid
Third Party Number	Third Party Number must not exist in Tavant for a given master source.	Third Party already exists

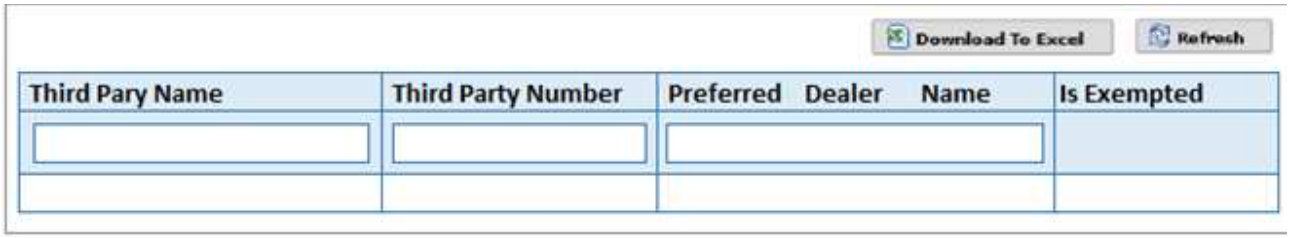
Impact on existing BUs	None Third Party upload is only mapped to HVAC business units. So the upload is not available for non HVAC business units.
Assumptions and Dependencies	This upload feature will be available only to the Warranty Admin
Business Priority	High
References/Expectations	None
Notes	None
Use Case # 2	**2.2.3 Warranty Admin for Third Party**
Description	Warranty admin must be able to update and manage third parties which are loaded to TWMS
Business Values	Warranty Admin will be able to Update Third party Dealers/Installers in Tavant with this feature
Actors	Warranty Admin
Current Process/ Functionality in TWMS	Not Applicable. Does not exist in TWMS.

Proposed Flow

1. New System BU Configuration
   a. Name: **Enable third parties and related functionalities**
   b. Type: Yes/No
   c. Description: Enable/disable the third party functionality
   d. Section: None (not available on UI for warranty admin)
   e. Setup: Yes for HVAC TCP & RS HVAC, No for the rest of the business units
2. A link labelled 'Third Parties' to display the list of all third parties under the 'Dealer Information' tab of the left navigation menu. This is displayed
   a. only for Warranty Admin and
   b. only when the BU configuration 'Enable third parties and related functionalities' is set to 'Yes'



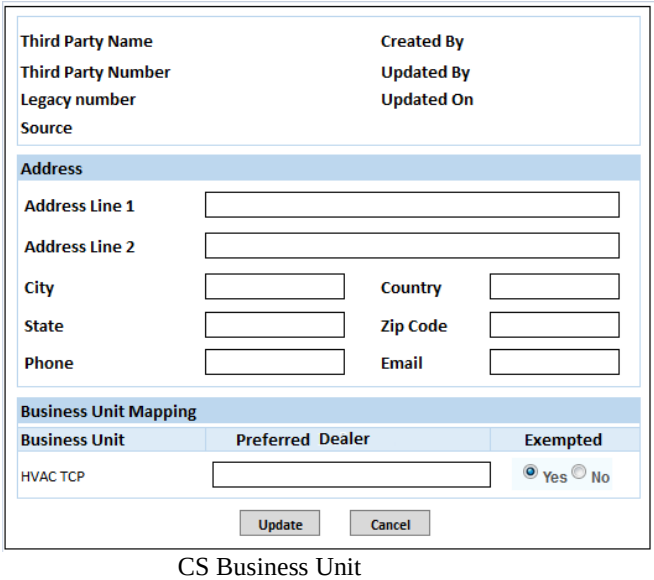
3. Clicking on Third Parties link will open a list of all third parties loaded to Tavant (where the third party source is mapped to the logged in user's business units)



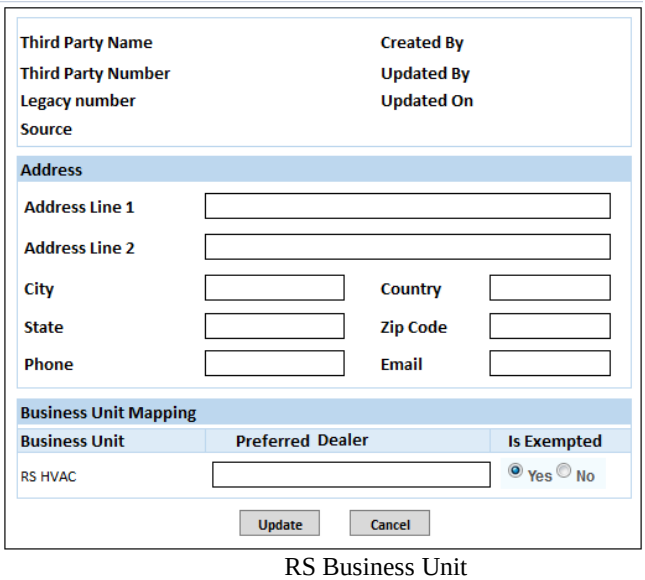
a. The complete list of fields displayed on the UI and those which are downloaded to excel have been listed in the table below.
b. Business Unit will be displayed only if the logged in user belongs to multiple business units.

Field	For UI	For Excel	Sorting	Filtering
Business Unit	Yes	Yes	Yes	Yes
Third Party Name	Yes	Yes	Yes	Yes
Third Party Number	Yes	Yes	Yes	Yes
Legacy Number	Yes	Yes	Yes	Yes
Preferred Dealer Name	Yes	Yes	Yes	Yes
Is Exempted	Yes	Yes	Yes	No
Address Line 1	No	Yes	-NA-	-NA-
Address Line 2	No	Yes	-NA-	-NA-
City	No	Yes	-NA-	-NA-
State	No	Yes	-NA-	-NA-
Country	No	Yes	-NA-	-NA-
Zip Code	No	Yes	-NA-	-NA-
Phone	No	Yes	-NA-	-NA-
Email	No	Yes	-NA-	-NA-

4. Double clicking on any third party listed will open the detail page in a new tab



CS Business Unit



RS Business Unit

a. Third Party Name/Number, Legacy Number, Source, Created By, Updated By & Updated On displayed in the header section as read only labels
b. Address, Phone & Email can be updated
c. Business Unit Mapping

i. All the business units associated with both the Third Party and the logged in admin user will be listed. ii. 2 attributes 'Preferred Distributor' and 'Is Exempted' are displayed against each business unit. Both these fields are editable.	
Impact on existing BUs	None The functionality is enabled only for HVAC business units. Not applicable for non HVAC business units.
Assumptions and Dependencies	This feature will be available only to the Warranty Admin
Business Priority	Normal
References/Expectations	None
Notes	None

2.3 PART RETURN INITIATION

2.3.1 Requirements

RTM No	Use Cases	Summary
PRM-PR-02	3	For the parts to be returned by third party, the DEALER (DISTRIBUTOR) who files the claim on behalf of the third party will be notified. The DEALER (DISTRIBUTOR) is also responsible to update the system with the shipment information. Ability to capture the Shipping sites & address based on the Organization warehouse/Service setup. Primarily used to identify a shipping site in a parts return transaction.
PRM-PR-51	1,2	(Leg1) Trane Residential wants 3rd parties (except few some are exempt) to return the Parts to Distributor/Part Centre. Sometimes directly back to Trane based on the configurations like distributor type or parts or combination of the two Only 3rd Party Returns to TPC: Shipment information is always mandatory if Part Return is YES. Res: No validation. Distributor can just check the check box and submit the claim. Trust the Distributor. Distributor cannot submit Claim until Leg1 RECEIVED=Yes Commercial: If Leg2 is not required. Distributors just sign a WR form. Distributor can submit Claim even if Leg1 RECEIVED=No (Distributor) They will be forced to specify that they have received the part (due parts or through claim inbox – 3rd Party "Part Not Received" (design) 3rd Parties are not always required to return the part back to IWD distributors • It will always be controlled based on the installing contractor level. • In future, they might control the return from installing contractor based on the part centre or IWD tied to that particular contractor. • Do require returns for quality and vendor recovery purposes (some are quality related others are to avoid fraudulent claims)

Functional Design – Use Cases	
Use Case # 1	**2.3.2 Capture Part Source on Claim**

Description	1. The part return configuration in Tavant must take into consideration the Part Source. 2. For Distributors in the US and Canada, the Part Source will always be Oracle R12 3. For Dealer (Distributor)s outside of the US and Canada, the Dealer (Distributor) will need to select the Part Source on the claim. Once the part source is provided, the part configuration can be confirmed. (Note: Part Source needs to be selected only if there are multiple same parts in the Item Master.) 4. To determine the Source of the Part, there will be a drop down on the claim. The Dealer (Distributor) will be selecting the Source from drop down available. If part is sourced from only one source, then only one option will be in the drop down and it will be selected by default.
Business Values	In order to determine the source of the Part, Dealer (Distributor)will have to select the Part Source from the drop down.
Actors	Dealer (Distributor)
Current Process/ Functionality in TWMS	Not Applicable. Does not exist in TWMS.

Proposed Flow

1. A List of part sources will be setup for each business unit. Note: This list will be maintained from backend and will not be available on UI.
2. Setup a mapping between Dealer (Distributor) Group and a Default Source in the database. This mapping cannot be viewed or managed from the application.

Business Unit	Dealer (Distributor) Group	Default Source
HVAC TCP	US Co Owned TPC	Oracle R12
HVAC TCP	US Trane Ind Distributor	Oracle R12
HVAC TCP	CAN Co Owned TPC	Oracle R12
HVAC TCP	CAN Trane Ind Distributor	Oracle R12

3. Capture Part Source on each installed part added on claim, if there are multiple Part Sources setup for a given business unit. When an installed part number is selected
   a. Check if the Dealer (Distributor) group is mapped to a Default Source. If Default Source found, display the source against the installed part. This source cannot be updated and is read only.
      Note: This will be displayed in a Dropdown with only one value.
   b. If default source not found, find a list of sources associated with the part from the item master in TWMS.
      i. When there is just 1 source, display the source as read only.
      Note: This will be displayed in a Dropdown with only one value.
      ii. When there are multiple sources, display a drop down from which the Dealer (Distributor) will have to select an appropriate one.
   c. Part Source is mandatory
   d. When there are multiple sources associated with a Part, processor will be allowed to update the part source. (Updating a part source should trigger a price fetch and recheck for PRC – which will be part of Claim Submission & Processing implementation)

Impact on existing BUs	None Non HVAC business units are mapped to only 1 part source, so part source will not appear on the claim and hence no impact.

Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None
Use Case # 2	**2.3.3 Find Part Return Configuration**
Description	Check for PRC when a distributor validates a claim for submission • Find Leg2 PRC based on removed part number/group, Dealer /Dealer group, product, claim type, claim date and part source. • If Leg2 is not configured, find Leg1 PRC based on removed part number/group, Dealer /Dealer group, product, claim type and claim date. • If Leg1 is configured, check if the Third Party is exempted from part return. Display the part return requirement to the Dealer – part number, return location
Business Values	Configuration of Leg1 and Leg2
Actors	Distributor
Current Process/ Functionality in TWMS	1. Only Leg 2 return {from Dealer (Distributor) to OEM} is supported by TWMS currently. 2. Part Return Criteria can be setup based on a. Part/Part Group b. Dealer /Group c. Claim Type d. Product e. Warranty Type 3. If an eligible part return criteria is found, applicable configuration is fetched based on the date of service.

Proposed Flow

When a claim is validated by the Dealer (Distributor) for each replaced part

1. Find Leg 2 part return criteria defined based on the following claim details
   f. Part/Part Group
   g. Dealer/Group
   h. Claim Type
   i. Product
   j. Warranty Type
   k. Part Source
2. If an eligible criteria is found, find the applicable configuration based on the applicable date (date of service/claim date) and window period.
3. When Leg 2 configuration is found then
   l. Set LEG-2 Required = true
   m. Display the following information on the validation screen – Replaced, Removed part, quantity and the return location where the part has to be shipped by the Dealer (Distributor).
4. If Leg 2 configuration is not found (There is No part return for CS)
   n. Find Leg 1 part return criteria defined based on the following claim details(Only for RS)

i. Part/Part Group
ii. Dealer /Group
iii. Claim Type
iv. Product

o. If an eligible criteria is found, find the applicable configuration based on the date of claim
p. When Leg 1 configuration is found, check if the third party is exempted
   i. When third party is exempted – there is no part return
   ii. When third party is not exempted then
      1. Set LEG-1 Required = true
      2. Display the following information to Dealer (distributor) for parts to be received by the Dealer (distributor) from third party – replaced part & quantity
q. If Leg 1 configuration is not found
   i. If Leg2 is False, there is no part return.
   ii. If Leg 2 is True, there will be only Leg2 return and parts will move to Due Parts Inbox..

5. When a draft claim is submitted by Third Party (through the page exposed from Comfort Site)
   r. Find Leg 1 part return criteria defined based on the following claim details
      i. Part/Part Group
      ii. Dealer /Group
      iii. Claim Type
      iv. Product
   s. If an eligible criteria is found, find the applicable configuration based on the date of claim
   t. When Leg 1 configuration is found, check if the third party is exempted
      i. When third party is exempted – there is no part return
      ii. When third party is not exempted then
         1. Set LEG-1 Required = true
         2. A message displayed to the Third Party to return the part to the Dealer (Distributor) – replaced part, quantity & Dealer (Distributor)
   u. If Leg 1 configuration is not found –
      i. If Leg2 is False, there is no part return.
      ii. If Leg 2 is True, there will be only Leg2 return and parts will move to Due Parts Inbox..

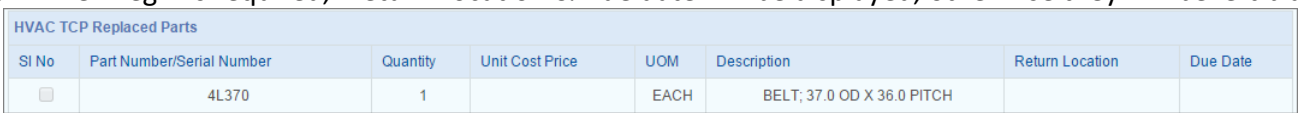
Impact on existing BUs	None
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	If Leg 1 configuration is not found: CS - Still we need to look for Leg2. Leg2 is priority. CS THERE IS NO LEG1. RS – Leg1 is priority. Even if there is no Leg1 there can be leg2.
Use Case # 3	**2.3.4**
Description	When Leg 1 return from third party to Dealer (distributor) is required, Dealer (Distributor) will have to mark the part as received and proceed with Leg 2 return (if applicable).

	NA for CS.
Business Values	This will enable the Dealers (Distributor) to easily manage the Part return process.
Actors	Dealer (Distributor)
Current Process/ Functionality in TWMS	Not Applicable. Does not exist in TWMS.

Proposed Flow

a.

2. When a claim is validated by the Dealer (Distributor), part return requirements are displayed.
   a. When Leg 2 is required, Return Location & Due date will be displayed, otherwise they will be left blank


HVAC TCP Replaced Parts

Sl No	Part Number/Serial Number	Quantity	Unit Cost Price	UOM	Description	Return Location	Due Date
	4L370	1		EACH	BELT; 37.0 OD X 36.0 PITCH		

3. When Distributor opens a claim from Draft inbox, he has to mark if the 3rd Party Part has been received Yes/No.
   If Leg1 is required, this check box has to be checked(mandatory) before the claim is validated, only then the claim can be validated and submitted.
   Else error message will be displayed "3rd Party Part return is required, but it is not marked as received".

   Leg2 Part return will be triggered only once the claim is submitted.

4. When {Leg-2 Required = false and Leg-1 Required = true }
   a. Distributor has to mark the 3rd Party Part as received on the claim itself. Then upon validation and submission of claim, Claim will get submitted and Part return flow will end here.
   b. When only {Leg-2 Required = true}
   Distributor need not mark the 3rd Party check box as received on the claim. Claim can be validated and submitted, Part will move to Due Part inbox of Distributor for Part Return and Shipment.
   c. When {Leg-1 Required = true and Leg-2 Required = true}
   Distributor has to mark the 3rd Party Part as received on the claim itself. Then upon validation and submission of claim, Claim will get submitted and Part will move to Due Part inbox of Distributor for Part Return and Shipment.

i. ‘

d.
e.

5.

Impact on existing BUs	Non HVAC business units will have BU configuration 'Enable third parties and related functionalities' set to false.
Assumptions and Dependencies	None
Business Priority	None
References/Expectations	None
Notes	None

2.4 PART SHIPPING

2.4.1 Requirements

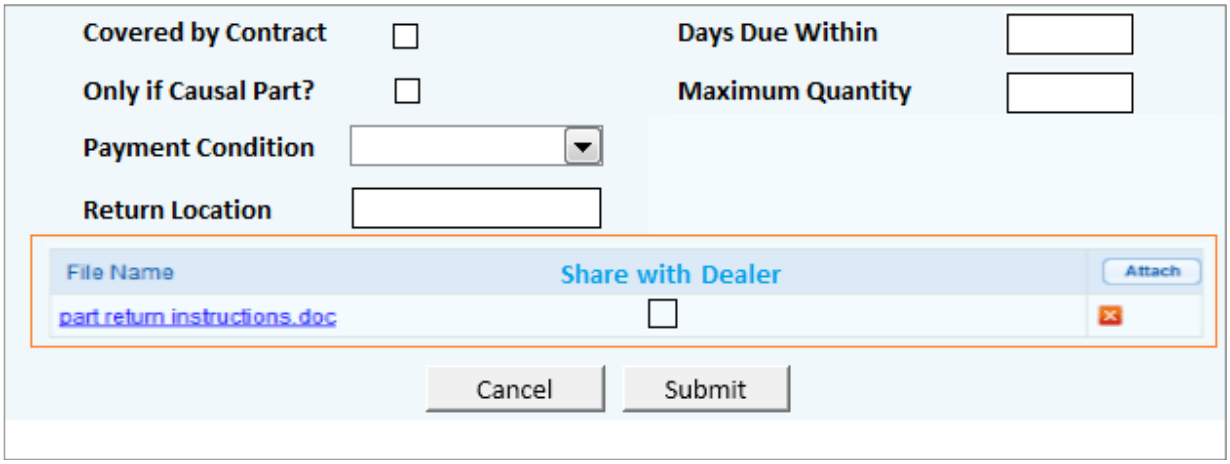
RTM No	Use Cases	Summary
PRM-PR-21	1,2	Provision to specify the carrier to be used for the Proactive Parts Return Request.
PRM-PR-36	2	Provision to attach multiple files to a Parts Return Shipment and receipt.
PRM-PR-05	1,2	Admin should be able to upload a document with all the part return instructions. The CSOs should be able to download this document while generating shipment.
PRM-PR-47	3	Ability to print a tag with bar code

Functional Design – Use Cases

Use Case # 1	**2.4.2 Part Return Configuration**
Description	1. Admin should be able to upload a document with all the part return instructions in PRC. The CSOs should be able to download this document while generating shipment. PRM-PR-05 a. Admin will have the upload option along the option to share the attachment to the Dealer (Distributor). b. Based on this flag the Dealer (Distributor) should be able to access the same.
Business Values	PRC Configuration
Actors	Warranty Admin
Current Process/ Functionality in TWMS	Not Applicable. Does not exist in TWMS

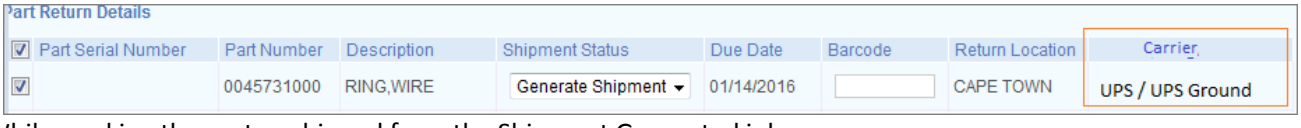
Proposed Flow

1. .
2. Add an attachment section to part return configuration.
   a. Documents can be added or deleted.
   b. A check box to share the document with Dealer (Distributor)

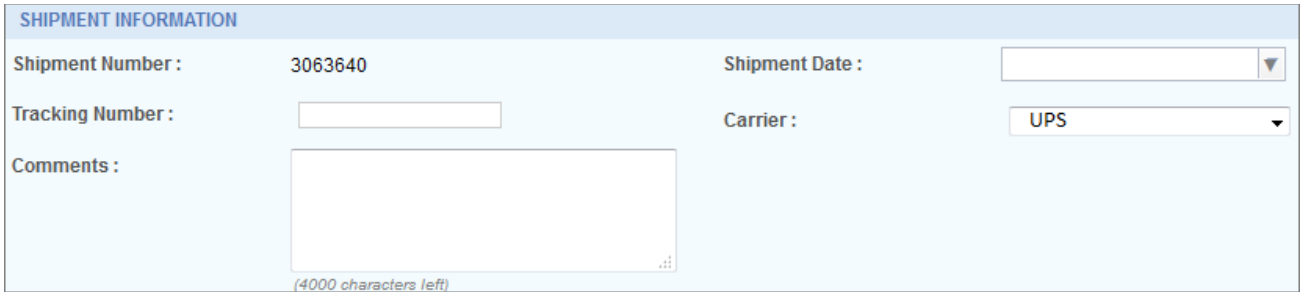


Impact on existing BUs	Enhancement • Admin can attach part return instructions and will be displayed to Dealer (Distributor) only if the admin chooses to share it with Dealer (Distributor).
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None
Use Case # 2	**2.4.3 Generate Shipment**
Description	Capture carrier Dealer (Distributor) will be able to download part return instructions and attach documents while shipping the part.
Business Values	
Actors	Dealer (Distributor)
Current Process/ Functionality in TWMS	Currently Carrier information, Tracking number and shipment date is provided by the Dealer (Distributor) while shipping the part. Dealer (Distributor) has no option to attach/download documents while shipping or while generating the shipment.
Proposed Flow	

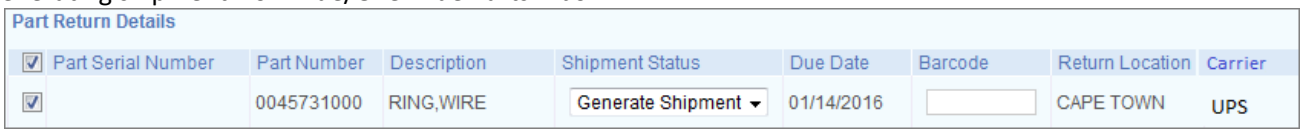
1. .



2. While marking the part as shipped from the Shipment Generated inbox



3. Allow the Dealer (Distributor) to attach documents while generating shipment from the Due/Overdue Parts inboxes
    a. Location view
    b. Claim view
4. Links to documents shared with Dealer (Distributor)s (configured on PRC) will be shown against each part while generating shipment from Due/Over Due Parts inbox.



Impact on existing BUs	Enhancement • Due/Overdue Parts inbox o Dealer (Distributor) can attach documents • Shipment Generated inbox o Distributor has to select the Carrier
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None
Use Case # 3	**2.4.4 Print Shipment Tag with Bar Code**
Description	• HAVC will follow the bar code model followed by Thermo King, North America • Bar codes for parts must be printed on the shipment tag • A bar code for shipment number must be printed on the shipment tag
Business Values	PRC configuration / Bar Code model and Print Shipment Tag designs
Actors	Dealer (Distributor)
Current Process/ Functionality in TWMS	Shipment tag available in TWMS is as shown below

(FOR INTERNAL USE ONLY)		RETURN TO ADDRESS
Shipment Number :	3063640	PLEASE RETURN COMPLETE PART TO: Thermo King Attn: Warranty Returns 314 W. 90TH ST Minneapolis, MN US - 55420
Location:	MINNEAPOLIS	
Shipment Date:	11/27/2015	

DEALER INFORMATION

Dealer Number:	312426-783798
Dealer Name:	TK CINCINNATI OH (312426-783798)
Address:	12130 BEST PLACE CINCINNATI, OH US - 45241

LIST OF PARTS TO BE RETURNED

CLAIM NUMBER	WORK ORDER NUMBER	SERIAL NUMBER	MODEL	PART NUMBER	DESCRIPTION	QUANTITY	BARCODE FOR PART(S).
W-20493051	WC21198	6001157128	S-600	100499	KIT INJECTION PUMP	1	6526520

Proposed Flow

1. New Admin BU Configuration
    a. Name: **Print Bar Codes on Shipment Tag**
    b. Type: Boolean (Yes/No)
    c. Description:
        i. Yes: Bar codes will be printed on shipment tag for parts and shipment number
        ii. No: Bar codes will not be printed on shipment tag
    d. Section: Claim -> Return Part Management
    e. Setup: Yes for HVAC TCP & RS HVAC, No for the rest of the business units
2. Bar code will be printed against each part on the shipment tag
3. A bar code will also be printed for the shipment number

(FOR INTERNAL USE ONLY)		RETURN TO ADDRESS
Shipment Number :	3063640	PLEASE RETURN COMPLETE PART TO: Thermo King Attn: Warranty Returns 314 W. 90TH ST Minneapolis, MN US - 55420
Location:	MINNEAPOLIS	
Shipment Date:	11/27/2015	

DEALER INFORMATION

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W-20493051	WC21198	6001157128	S-600	100499	KIT INJECTION PUMP	1	6526520

Impact on existing BUs	None Change is controlled by a BU configuration and the existing business units will not be affected.

Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None

2.5 PART RETURN WORKFLOW

2.5.1 Requirements

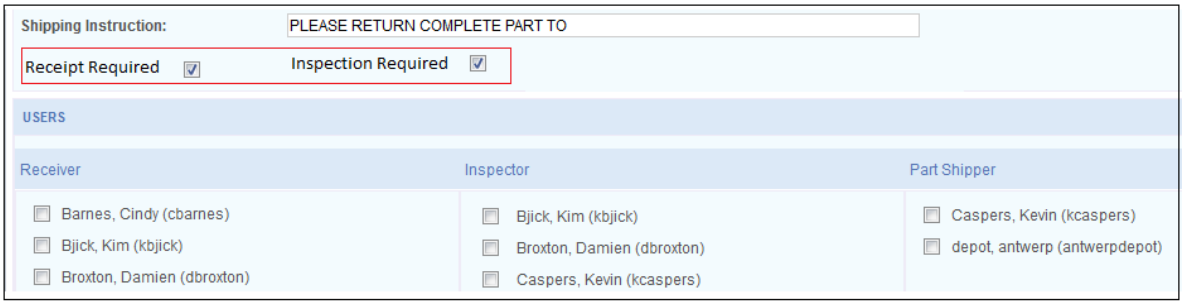
RTM No	Use Cases	Summary
PRM-PR-06	1,2	Need the ability to PRC configure whether the shipped part has to be received / inspected at the warehouse level.
PRM-PC-03	1,2	Part Return Configuration should be enhanced to allow the claim to be paid if the part has been shipped but not received/inspected. Such claims should be submitted for payment. Should be able to pay the claim once the part is shipped. Should be able to specify the payment condition as '**Pay on Part Shipped'**

Functional Design – Use Cases

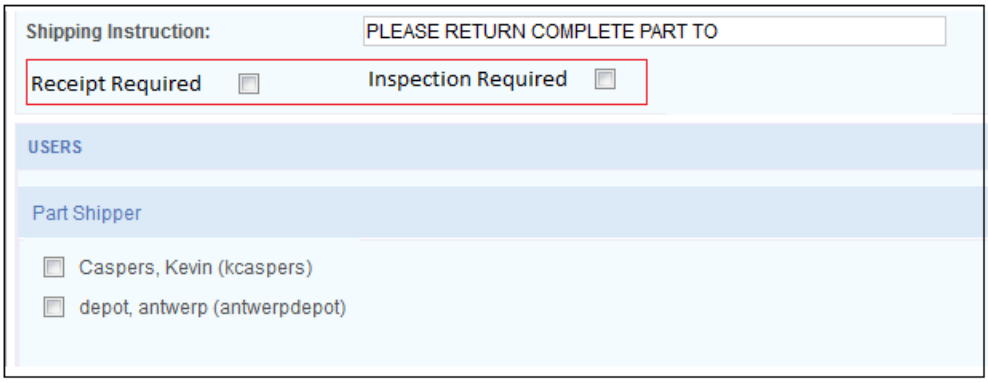
Use Case # 1	**2.5.2 Warehouse and Part Return Configuration**
Description	Need the ability in for the admin to configure whether the shipped part has to be received / inspected at the warehouse level. a. The user should be to able configure if the part can be received or inspected. b. If it's configured as inspected then this part will automatically be sent to the inspector queue. Once the Inspector inspects the part the system will implicitly mark the part as received and inspected.
Business Values	Manage and configure whether the shipped part has to be received / inspected at the warehouse level.
Actors	Warranty Admin
Current Process/ Functionality in TWMS	• Every warehouse must have a receiver and inspector. • Any part shipped by the Dealer (Distributor) will end up in the receiver's queue to be marked as received. • Once the receiver marks the part as received, the part will move to the inspectors queue for inspection. • This is the process for any part which is marked for return from the Dealer (Distributor), irrespective of the payment condition.
Proposed Flow	

Warehouse Configuration

1. 2 check boxes added to define the responsibility of a warehouse (on both create and update screens)
   a. Receipt Required
   b. Inspection Required
2. By default both the check boxes will be checked



3. List of receivers will not be displayed when Receipt Required is not checked
4. List of inspectors will not be displayed when Inspection Required is not checked



Part Return Configuration

1. Add a new option 'Pay on Part Shipped' to the payment condition drop down on part return configuration

Impact on existing BUs	Enhancement • The changes or the new functionality is available to all the business units, but will come into effect only if the required setup in done by the Warranty Admin
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None
Use Case # 2	**2.5.3 Payment Condition to Release Claim for Payment**
Description	Part Return Configuration should be enhanced to allow the claim to be paid if the part has been shipped but not received/inspected. Such claims should be submitted for payment. Should be able to pay the claim once the part is shipped. Should be able to specify the payment condition as 'Pay on Part Shipped' Warehouse configuration and the payment condition to be considered together to decide if a

	claim can be released for payment or not. Note: Functionality of sending the claim (by Processor/Inspector) for Payment will take priority above all these.
Business Values	Configuration of Part Return and binding the Claim Payment conditions to the configuration.
Actors	TWMS System
Current Process/ Functionality in TWMS	• After the claim is accepted it will be released for payment only if the payment condition on the part return is met. • 3 payment conditions are supported a. Pay without part return: Claim will be released for payment irrespective of the part return status b. Pay on part return: only after the part is marked as received at the warehouse c. Pay on part inspection: only after the part is inspected

Proposed Flow

1. When the claim is accepted, it will be released for payment based on the Payment Condition (configured on PRC) and Warehouse Responsibility (Receipt/Inspection required configured on warehouse)

Condition to be met in order to release the claim for payment				
Payment Condition/ Warehouse Responsibility	None	Receive Only	Inspect Only	Receive & Inspect
Pay Without Part Return	Always	Always	Always	Always
Pay on Part Shipped	On Part Shipped	On Part Shipped	On Part Shipped	On Part Shipped
Pay on Part Return	On Part Shipped	On Part Receipt	On Part Shipped	On Part Receipt
Pay on Part Inspection	On Part Shipped	On Part Receipt	On Part Inspection	On Part Inspection

2. Part Return flow for Leg-2 will be ended is various states based on the warehouse responsibility

Warehouse Responsibility	**End State**
None	Part Shipped
Receive Only	Part Received
Inspect Only	Part Accepted/Part Rejected
Receive & Inspect	Part Accepted/Part Rejected

3. When the warehouse is configured to inspect only, once the part is shipped it will be directly placed in the inspector's queue for inspection

Impact on existing BUs	Enhanced • The changes or the new functionality is available to all the business units, but will come into effect only if the required setup in done by the Warranty Admin
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None

2.6 PART RECEIPT

2.6.1 Requirements

RTM No	Use Cases	Summary
PRM-PR-07	1	When a part is marked as received the receiver must be able to capture the actual dates: New fields to be added: Date of Receipt in the receive screen. Date of inspection/test result date in the inspection screen. Should also be able to capture Vendor information. Note (Already exists in Receiver Screen): Vendor information can be captured as part of Contract field. Comments can be entered in Comments section.
PRM-PR-42	3	Ability to attach a file even after a Parts Return receipt has been processed.
PRM-PR-32	3	User should be able to modify the comments on the Parts Return Receipt even after the parts return has been processed.
PRM-PR-48	1	Provision to select symptoms visible on the returned part like rusting / breakage.
PRM-PR-44	2	Ability to define the test priority for the parts returns received in the Part return configuration.
PRM-PR-28	1	Ability to capture the Part inspected date for the received parts, in the event that the parts are inspected.

Functional Design – Use Cases

Use Case # 1	2.6.2 Capture Date of Receipt and Visible Symptoms
Description	Capture the actual date of receipt and symptoms visible while receiving the part
Business Values	By this business with be able to keep track of when the Part was actually received(other than the system captured date which might not be true all the time).
Actors	Receiver
Current Process/ Functionality in TWMS	The date on which receiver marks the part as received is considered as the date of receipt. The receiver can • mark the part as received/not received • specify vendor information by selecting a contract associated with the vendor • provide comments • attach document and share them with vendor if required

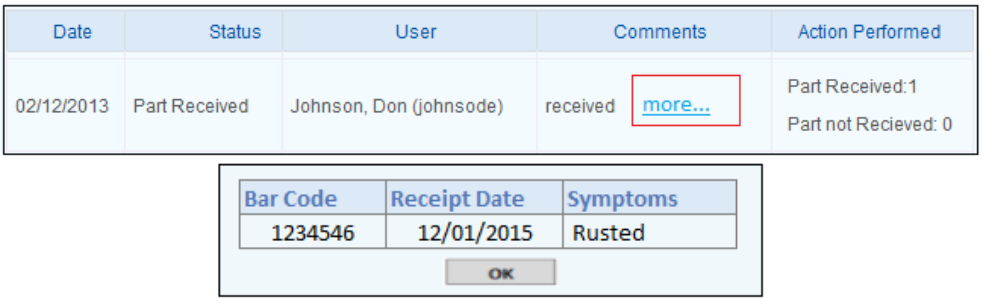
Proposed Flow

1. A date field to capture the actual date of receipt is added while receiving the part.
   a. Claim view

b. Shipment view

2. Date of receipt is defaulted to current date and can be updated. It is mandatory.
3. Define a new List of Values – 'Visible Symptoms on Part Receipt', which can be managed by warranty admin
4. A drop down field to capture the symptoms visible on part receipt. This is an optional field and will be displayed only if values are setup for the BU

5. Actual date of receipt and visible symptoms captured will be displayed on the Part Received audit. A hyperlink labelled 'more…' will be added to the end of the comments. When clicked on this link a dialog is displayed with Bar Code, receipt date and symptoms captured during part receipt.



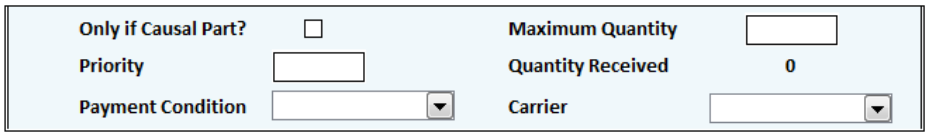
Impact on existing BUs	Enhancement • Actual date will be defaulted to current date and can be modified only if needed • Visible symptoms field will be displayed only if the values are setup by admin
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None

Use Case # 2	**2.6.3 Define Test Priority**
Description	Ability to define the test priority for the parts returns received in the Part return configuration. a. Test priority will be a free text (numeric) in the part return configuration page. b. This field will serve as an input for the part receivers / inspectors to act on the parts accordingly
Business Values	Business will be able to define the priority to the parts which needs to be Received/inspected on priority.

Actors	Warranty Admin & Receiver
Current Process/ Functionality in TWMS	Not Applicable. Does not exist in TWMS

Proposed Flow

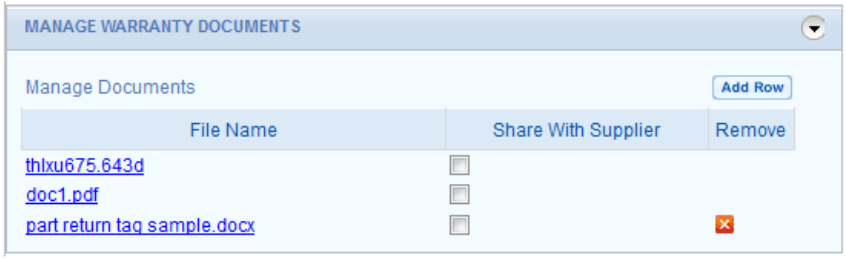
1. Capture the test priority on part return configuration – a number field
2. Test priority is not mandatory. The higher the value the higher the priority.
3. When not specified will be set to 0.



4. A new column 'Test Priority' will be displayed on the list page of parts to be received (Due Parts Receipt) inbox.
   a. Claim view
   b. Shipment view
5. Sorting based on Test Priority will be enabled

Impact on existing BUs	Enhancement Will be available for all the business units. Will not impact any part return flows but if configured on PRC it can be used while receiving the parts.
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None

Use Case # 3	**2.6.4 Attachments on Parts Already Received**
Description	Ability to attach a file even after a Parts Return receipt has been processed
Business Values	Invoice/Visual Symptoms/Documents can be attached
Actors	Receiver
Current Process/ Functionality in TWMS	Receiver will can attach multiple files while receiving a part. Receiver also has an option to share the attached documents with the vendor. Receiver will be able to update the part receipt information even after the part is received. But will not be able to add attachments.

Proposed Flow
1. Add the attachments section while updating parts which are already received. Attachment section similar to the one available while receiving the part will be added. 

Impact on existing BUs	Enhancement Functionality will be available for all the business units. Receiver will be able to manage documents while editing the parts already received.
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None

2.7 TEST RESULTS ON PART INSPECTION

2.7.1 Requirements

RTM No	Use Cases	Summary
PRM-PR-49	1,2	Ability to dynamically create a provision to capture test results in the form of specific set of data attributes (dropdown / LoV) for a component group. The creation and deployment of the new component group and WRC test results data attributes should be possible by select Trane RS administrator roles.

Functional Design – Use Cases

Use Case # 1	**2.7.2 Define Custom Reports to Capture Inspection Results**
Description	Ability to dynamically create a provision to capture test results in the form of specific set of data attributes (dropdown / LOV) for a component group. The creation and deployment of the new component group and WRC test results data attributes should be possible by select Trane RS administrator roles. This will be a Custom Report which the inspector will have to fill out on Part Inspection. a. System will have a new Custom Report Labeled Inspection Results b. The admin will have the ability to create a report based on the Criteria of applicable products and

	parts c. The user can publish the report which will be used by the inspector to capture the inspection results. d. The results will be tied to the payment of the claim via a new Payment condition "Pay on validated failure (Inspection)"
Business Values	This will enable business to capture the Inspection results as part of custom reports.
Actors	Warranty Admin
Current Process/ Functionality in TWMS	Not Applicable. Does not exist in TWMS
Proposed Flow	
Will be same as the approach for a support CR – TSESA-#	
Impact on existing BUs	None. Will be an existing functionality.
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None
Use Case # 2	**2.7.3 Capture Inspection Report during Part Inspection**
Description	Capture Inspection Report during Part Inspection
Business Values	This will enable business to capture the Inspection results.
Actors	Inspector
Current Process/ Functionality in TWMS	Inspector can accept/reject a part and select a reason for acceptance/rejection. Claims where the payment condition is Pay on Part Inspection, will be released for payment when the inspector accepts/rejects the part.
Proposed Flow	
Will be same as the approach for a support CR – TSESA-#	
Impact on existing BUs	None. Will be an existing functionality.
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None

2.8 PART INSPECTION

2.8.1 Requirements

RTM No	Use Cases	Summary
PRM-PR-40	1	Ability to capture an 8D Quality Investigation#, Tracking # on the RMA and the corresponding claim as well. Add it as new field in test result page to capture.
PRM-PR-50	1	1. Facility to record the Causal Part # and Failure code on the Parts Return inspection document. This can then be compared with the Causal part and Failure code on the claim to arrive at field training needs, updates to warranty manuals, updates to service / repair manuals. 2. When multiple parts have failed, Parts Return center team decides on which of the parts the Primary Causal Part is and which are secondary and captures these decisions on the Parts inspection. 3. If the Primary Causal Part and secondary causal parts on the Claim are different from that derived by the Return center, the processor should be able to correct the claim information accordingly.

Functional Design – Use Cases

Use Case # 1	2.8.2 Capture Actual Failure Details on Part Inspection
Description	Capture 8D Quality Investigation# & Tracking # during inspection Also capture the actual causal part and fault code. This information can be used by the processor and the information on the claim can be corrected accordingly.
Business Values	Business can use this information and correct it on the claim if needed.
Actors	Inspector
Current Process/ Functionality in TWMS	Not Applicable. Does not exist in TWMS.

Proposed Flow

1. Add a field to capture the causal part at claim level. This is an auto completer similar to the one on claim. By default will be set to the causal part on the warranty claim. Inspector can modify the part number.
2. Add a field to capture the fault code at claim level, similar to the one on claim. The code selected on the claim is selected by default. Inspector can change this value.
3. 2 new text fields to capture the 8D Quality Investigation# & Tracking # at the individual part level.
4. A new date field to capture the actual inspection date at the individual part level.
5. On part return audit for inspection, display a link to show all these details captured during inspection.

Impact on existing BUs	None This feature will be enabled only if the BU configuration to capture inspection results is enabled.
Assumptions and Dependencies	None
Business Priority	High

References/Expectations	None
Notes	None

2.9 Fault Code Maintenance

2.9.1 Requirements

RTM No	Use Cases	Summary
PRM-PR-38	1	Whenever a new failure code (other) is encountered during the claim submission/part inspection, it should trigger an entry into the Warranty Admin queue for the Warranty administrator to create a new Failure code. Also capture the newly created failure code in the new inbox and this queue should have search and sort functionality. Queue should have claim information (e.g. claim number, model no etc.)
PRM-PR-39	1	Once the new failure code has been set up in the WRC failure code master, the user should be able to update the WRC test results with the actual failure code.

Functional Design – Use Cases

Use Case # 1	2.9.2 Warranty Admin Queue for New Fault Codes
Description	New Failure Codes will be a new inbox on the left pane.
Business Values	Business can easily manage create/edit/remove fault codes from this inbox.
Actors	Warranty Admin
Current Process/ Functionality in TWMS	Not Applicable. Does not exist in TWMS

Proposed Flow

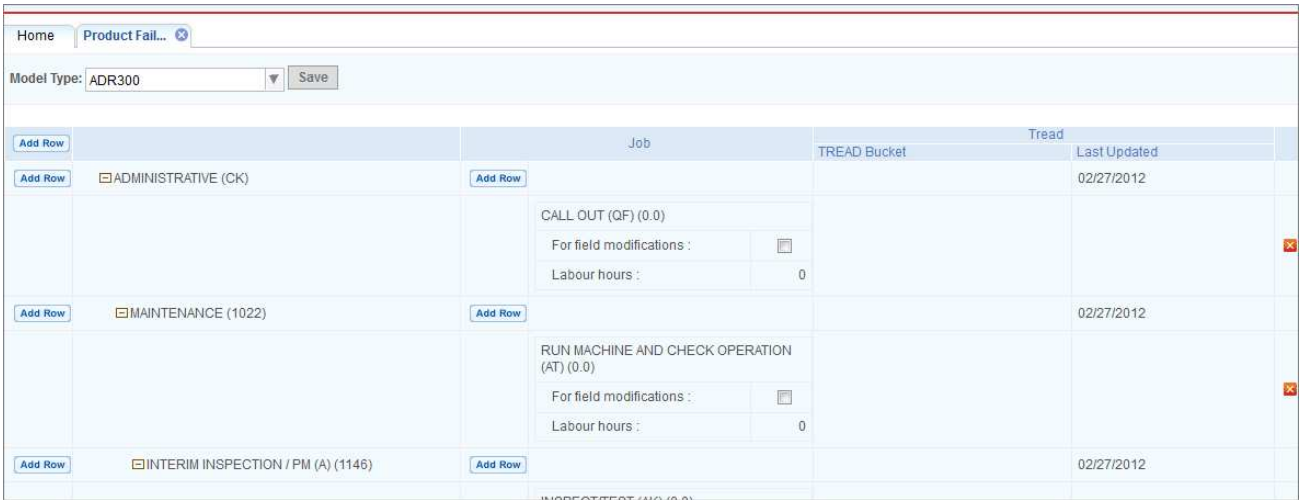
Steps:

1. A link labelled 'New Failure Codes' on the left navigation menu under 'Manage Failure Structure' section of the 'Warranty Admin' tab

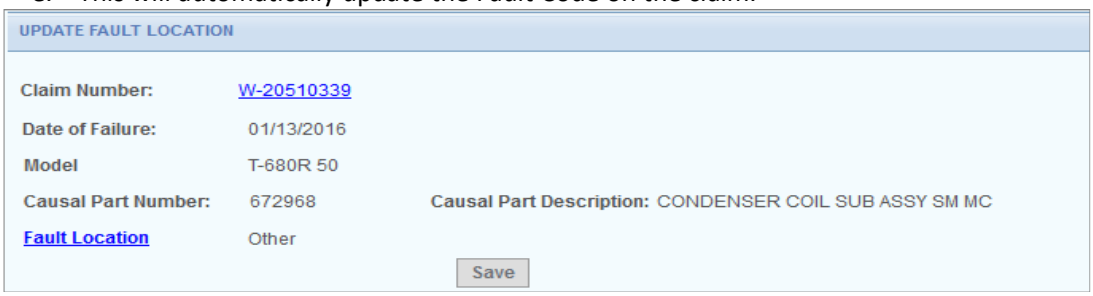
2. A claim is added to this queue when
   a. Dealer (Distributor) submits a claim with fault code as Other
   b. Part inspector select the actual fault code as Other during inspection

3. Columns displayed: Claim number, Model, Failure Date, Causal Part, New Fault Code

4. Select a record and click on the button 'Create Fault Code' – failure structure tree for the selected model will be opened in a new tab and the new fault code can be created.



5. Select a record and click on the button 'Update Fault Code'
   a. Detail page opens in a new tab
   b. Read only details: Claim number, Model, Failure Date, and Causal Part. Claim number has a link to the claim detail page for reference.
   c. New Fault Code: can be selected from a fault code tree, setup for the model
   d. Save: to update the selected fault code
   e. This will automatically update the Fault Code on the claim.



6. Select a record and click on the button 'Remove' – to delete a record from the queue
7. There will be status for all the records in the Admin Queue like – Pending, Completed.

Note: If a record is there in this new Admin queue and at the same time if a Processor modifies the Fault Code from 'Others' to an existing valid Fault Code, then the record should be automatically removed from this Admin queue.

The User should be able to update the test results from the inspection screen as well.

Impact on existing BUs	Enhancement Functionality will be available for all business units to help improve the maintenance of fault codes.
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None

2.10 Return The Part Directly To Supplier

2.10.1 Requirements

RTM No	Use Cases	Summary
PRM-PR-37	1,2	In the event that the Parts Return Request is for a part sourced from a supplier, provision to include the supplier code, name and return location on the parts return request.

Functional Design – Use Cases

Use Case # 1	**2.10.2 Part Return Configuration**
Description	In the event that the Parts Return Request is for a part sourced from a supplier, provision should be there to return the part directly to Supplier Location.
Business Values	Supplier return location on the parts return request (PRC) will be captured.
Actors	Warranty Admin
Current Process/ Functionality in TWMS	Not Applicable. Does not exists in TWMS

Proposed Flow

a.

1. If Part has to be shipped directly to Supplier, then HVAC will be using current Part Return Configuration functionality of TWMS and set up Warehouse.
2. Here Warehouse location will be supplier address where the part has to be shipped (Supplier location)

3. HVAC will be setting up a Default Receiver/Inspector on the warehouse who works closely with vendor. 4. This Receiver/Inspector will be responsible to mark the part as Received/Inspected in Tavant on behalf of Supplier. 5. Payment conditions for such PRC will be set as Pay on Shipment.	
Impact on existing BUs	No impact on other BU as HVAC will be using the functionality which already exists in TWMS.
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	No need to make any changes as part of this CR. HVAC will be using current PRC and Warehouse functionality of TWMS. This has been confirmed by CS and RS on the Review call.

Use Case # 2	**2.10.3 Send Parts Directly to Supplier**
Description	The 'PRC will determine if the part needs to be shipped directly to the supplier. • The Part receive and inspection will be done by Supplier Directly. • But Part Receive/Inspection, HVAC Part inspector will be responsible to inspect the part on behalf of Supplier • There should be flexibility to Part inspector to bring the PRC to closure so that the Warranty Claim will be processed as per business need
Business Values	Dealers (Distributor)s will be able to ship the parts directly to Suppliers.
Actors	Supplier, Inspector
Current Process/ Functionality in TWMS	Not Applicable. Does not exist in TWMS
Proposed Flow	
1. No change. Existing functionality will be used. Only setup has to be done. For details refer Use Case1.	
Impact on existing BUs	
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None

2.11 EMAIL NOTIFICATION

2.11.1 Requirements

RTM No	Use Cases	Summary

PRM-PR-33		Ability to create a Parts Return Receipt Acknowledgement to Dealer whenever a part is rejected at Parts Return center and needs to be returned to the dealer. This is to be in a standard prespecified format consistent across all dealers

Functional Design – Use Cases	
Use Case # 1	**2.11.1 Email Notification**
Description	Email Subscription if a Part is rejected.
Business Values	Notifies a Distributor that the part has been rejected.
Actors	Inspector, Distributor.
Current Process/ Functionality in TWMS	Not Available
Proposed Flow	
Email subscription: An email notification has to be sent to Distributor if a part is rejected by inspector. This will help Distributor know the status of the Part Return. This email will be in a standard format.	
Impact on existing BUs	No impact on other BU as this email notification is a check box and will be applicable only if set as Yes.
Assumptions and Dependencies	None
Business Priority	High
References/Expectations	None
Notes	None

3 EXISTING REQUIREMENTS

Below is the list of requirements which are currently existing in TWMS. Tavant will be preparing a separate document explain all such requirements with relevant screenshots.

Requirement ID	Description	Type
PRM-PR-01	Part return can be requested on a claim automatically by setting up PRC or manually by the processor.	Exists
PRM-PR-03	CSO (Dealer) will generate shipment and ship the parts by providing the carrier and tracking information. More than one part can be added on one shipment.	Exists
PRM-PR-04	CSO(Dealer) should have visibility to the return requirements at time of claim validation and claim submission.	Exists
PRM-PR-08	The CSO (dealer) should be able to view the list of all parts set up to be returned for that CSO.	Exists

Requirement ID	Description	Type
PRM-PR-09	As long as the part is not shipped by the CSO (Dealer) the processor can update the part return details on the claim like the return location, due days, payment condition.	Exists
PRM-PR-10	Once the max number of parts configured on PRC have been returned the PRC will not automatically trigger part return on that part any more. But the processor can still request for part return manually.	Exists
PRM-PR-11	When a part is requested, even when the claim is approved by the processor the actual payment on the claim is held till the payment condition on the part return is met. Should be configurable at PRC part level.	Exists
PRM-PR-12	For FMC the part return is configured on the Field Modification. Processor can also trigger the part return manually. The processor can update the part return details while processing the claim as long as the part is not shipped by the CSO.	Exists
PRM-PR-13	Separate security role for inspector/check in. Will not have access to Warranty admin or processor.	Exists
PRM-PR-14	When a part is marked for return on the claim, 100% of parts quantity needs to be returned unless specified differently.	Exists
PRM-PR-18	Provision to set a parts quantity limit/percentage on the parts return request. Triggering PRC for every nth claim can wait for Phase-2	Exists
PRM-PR-19	Provision to track the number of parts received against each Parts Return request and stop processing the part match once the requested quantity has been received.	Exists
PRM-PR-20	Provision to specify a return location for the parts requested to be returned.	Exists
PRM-PR-22	Provision to match each claim based on the parts return request criteria and indicate part match during claims generation. The call center agent / parts center / claims processor / system can then raise a Return Material Authorization based on the part match details.	Exists
PRM-PR-23	Ability for the dealer to print a shipment label for the the parts to be returned	Exists
PRM-PR-24	Provision to combine the parts to be returned for multiple claims to the same return location using a single shipment label.	Exists
PRM-PR-25	Ability to capture the Part shipment date for the Parts Return at the time of shipment.	Exists

Requirement ID	Description	Type
PRM-PR-26	In the event that multiple parts on a single claim are marked to the same return location, a provision is required to confirm whether 'All parts are Received' / 'Not all parts received'. This flag will update the part return status on the claim and also to direct 'auto pay' processing of the claim.	Exists
PRM-PR-29	Ability to read bar codes on the labels for the parts received.	Exists
PRM-PR-30	Exceptions in reading the bar codes are handled manually by being able to edit the bar code output on the screen	Exists
PRM-PR-31	User will have the ability to maintain a list of part locations that is required to identify the part's current physical location. Use naming convention to accomplish	Exists
PRM-PR-31	Ability to maintain a list of part locations that is required to identify the part's current physical location. (Ex: Warehouse Aisle/Row/Bin)	Exists
PRM-PR-34	Provision for the claim processor to update the failure code and causal part on the claim, based on the findings from the Warranty Return Centre / Return location. In the event that the claim processor update the claim coding, then the claim should retain the history of the failure code captured by the service technician.	Exists
PRM-PR-35	Ability to add specific comments / narrative on an Parts Return receipt.	Exists
PRM-PR-43	Ability to view the list of parts returns received and pending for acceptance / testing.	Exists
PRM-PR-46	Provision to have the visual symptoms as an editable dropdown that will allow for easy selection / modification	Exists
PRM-PR-52	In Item Master same Parts might have different Item numbers for Residential and Global Parts. PRM-PR-52 • Either of the two parts can be used on the claim. • Two separate PRC have to be setup to get the Parts back.	Exists

Requirement ID	Description	Type
PRM-PR-57	From the 'Due Parts Inspection' queue, an inspector can accept or reject the part. a. When accepted, part return process is completed. b. When rejected, part return process is completed and the claim moves to 'Rejected Part Returns' queue of the processor (claims administrator). The processor (claims administrator) will have to decide on approving/rejecting the claim. Which should be configurable. c. System will capture the Part inspected date for the received parts, in the event that the parts are inspected.	Exists
PRM-PR-58	Dealer (Distributor) can subscribe for the following email notifications a. Part moves to 'Due Parts' queue b. Part moves to 'Overdue Parts' queue c. Part is received at the warehouse	Exists
PRM-PR-60	Processor should be able to update the "installed part" section before accepting the claim. i. Remove item ii. Update price to 0 iii. Update payment section	Exists

4 NON-FUNCTIONAL REQUIREMENTS

None