Project Report
on

Purchase Requisition Automation and End of Life/End of Support Inventory Management with OEM Integration in AMC Information Management tool

B.TECH IN INFORMATION TECHNOLOGY
2021-25

University School of Information and Communication Technology
Guru Gobind Singh Indraprastha University

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                                                    BTECH IT(6th Sem)

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CERTIFICATE

I, Ujjwal Gupta, Enrollment No. 00516401521 certify that the Project Report (BTECH-IT) entitled "**Purchase Requisition Automation and End of Life/End of Support Inventory Management with OEM Integration in AMC Information Management tool"** is done by me and it is an authentic work carried out by me at COMVIVA, Gurgaon. The matter embodied in this project work has not been submitted earlier for the award of any degree or diploma to the best of my knowledge and belief.

Signature of the Student
Date:

Certified that the Project Report (BTECH-IT) entitled "**Purchase Requisition Automation and End of Life/End of Support Inventory Management with OEM Integration in AMC Information Management tool**" done by Mr Ujjwal Gupta Roll No. 00516401521, is completed under my guidance.

Signature of the Guide
Date:
Name of the Guide: Mr. Vinay Upadhyay
Designation: Deputy General Manager
Comviva Technology Ltd, Gurugram

About the Organization

Comviva Technology, headquartered in Gurgaon, India, is a global leader in mobility solutions, driving the digital transformation of the telecom industry. As a subsidiary of Tech Mahindra, part of the renowned Mahindra Group, Comviva excels in delivering innovative products and services to mobile operators and service providers worldwide.

With a steadfast commitment to technological advancement, Comviva has developed a diverse portfolio encompassing mobile financial services, customer value management, digital content, messaging solutions, and managed services. These strategic offerings are instrumental in enhancing customer experience and operational efficiency for mobile operators.

Comviva's comprehensive suite of mobile financial solutions includes platforms for mobile banking, mobile payments, and mobile money. Products such as mobiquity® Wallet and mobiquity® Money are widely adopted, significantly driving financial inclusion, especially in emerging markets.

The company's Customer Value Management (CVM) solutions, demonstrate its dedication to elevating customer engagement and loyalty through advanced campaign management, loyalty programs, and customer analytics. These initiatives empower mobile operators to navigate the competitive telecom landscape with unmatched expertise.

In digital content, Comviva offers services that facilitate the delivery of digital entertainment, including music and video. Its messaging solutions, covering SMS, USSD, and other communication services, cater to the diverse needs of mobile operators and enterprises alike.

Comviva's managed services provide end-to-end management of IT and telecom operations, ensuring seamless service delivery and operational excellence. Through these initiatives, Comviva has effectively contributed to the professional growth and upskilling of countless individuals in the IT and telecom industries.

In essence, Comviva stands as a beacon of innovation and excellence within the telecom sector. Its unwavering dedication to advancing mobile financial services, customer value management, and digital content underscores its pivotal role in shaping the global digital landscape. Through its collaborative ethos, Comviva continues to enrich the telecom industry, fostering technological advancements that propel progress in the digital age.

ACKNOWLEDGMENT

I am pleased to present this project report titled "**Purchase Requisition Automation and End of Life/End of Support Inventory Management with OEM Integration in A**MC **I**nformation **M**anagement **tool**" as a culmination of our dedicated efforts and collaboration. I would like to extend my heartfelt gratitude to **Mr. Vinay Upadhyay** for his support and guidance, which helped me to contribute in AIM tool.

I also thank **Comviva Technology, Gurgaon** for providing the necessary resources and support.

Lastly, I am grateful to my family and friends for their constant encouragement which help me to contribute in their tool by understanding its working and modifying it according to the requirement.

This report represents my efforts to cope up with the team and their working environment, which helped me, contribute to their requirements in the tool.

I extend my sincere thanks once again for the unwavering support and guidance that I have received throughout this internship.

Warm regards,

Ujjwal Gupta

1.0 INTRODUCTION

1.1 Global Support Services, Comviva Unit-Comviva Technology, Gurgaon

The GCS (Global Customer Support) unit of Comviva, located in Gurgaon, plays a crucial role in ensuring customer satisfaction and operational efficiency for Comviva's diverse range of mobility solutions. This unit is dedicated to providing comprehensive support and maintenance services to Comviva's clients, which include mobile operators and service providers across the globe.
I worked within GCS unit in Comviva during my Internship

1.2 Key Functions of the GCS Unit:

1. **Technical Support and Maintenance:**
   - The GCS unit offers round-the-clock technical support to address any issues or challenges faced by clients.
   - It ensures the smooth **functioning of Comviva's products and services by providing timely updates**, bug fixes, and troubleshooting assistance.

2. **Customer Relationship Management:**
   - The unit maintains strong relationships with customers, ensuring their needs and expectations are met.
   - Regular communication and feedback mechanisms are in place to understand customer requirements and enhance service delivery.

3. **Service Level Agreements (SLAs):**

   - GCS is responsible for adhering to the **Service Level Agreements** established with clients, ensuring that the agreed-upon service standards are consistently met.
   - Performance metrics and regular reviews are conducted to monitor compliance with SLAs.

4. **Customization and Configuration:**

   - This unit assists clients in customizing and configuring Comviva's solutions to meet their specific business requirements.
   - This includes adapting software functionalities and integrating with existing systems.

2.0 AIM ARCHITECTURE

Comviva uses a vendor application AMC Information Management System (AIM). It connects different systems, such as MySQL server, Apache Tomcat server enabling seamless data flow and interaction between them.

ARCHITECTURE DIAGRAM
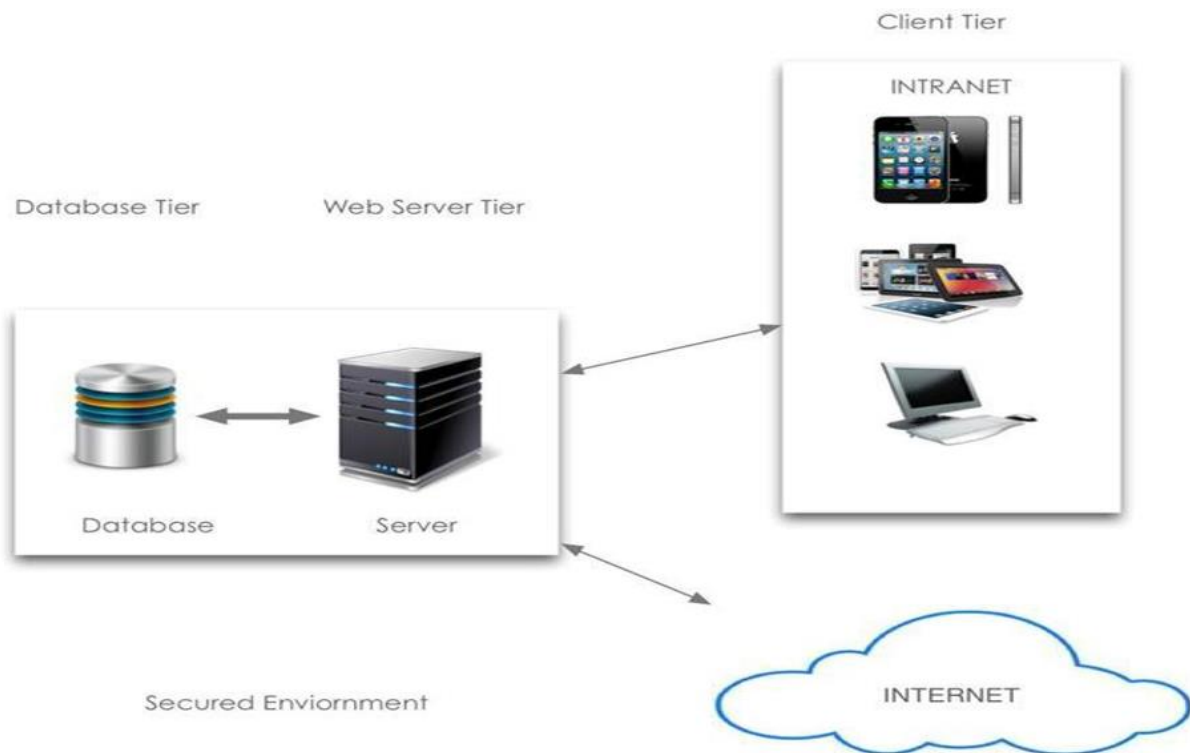
Figure 1 ARCHITECTURE DIAGRAM

2.1 Client-tier
1. This represents the end-user devices like office laptops, desktop computers that access the AIM tool.
2. These devices connect to the system through an Intranet.

2.2 Web Server Tier
1. This layer is represented by a server that handles requests from the client tier.
2. The web server acts as an intermediary between the client tier and database tier, managing the flow of information and ensuring the correct data is retrieved or processed.
3. Here web server is Application server Apache Tomcat which is an open source server that provides a runtime environment for Java Servlets and JSPs.

2.3 Database Tier
1. This is where the actual data is stored.

2. Any changes requested by the user is validated by GCS approver and then gets entered into database through MySQL server.

2.4 Advantages of AMC Helps in Managing budget.

- Quality control.
- Efficient utilization of Hardware/Software.
- Helps to focus on core aspects of business.
- Immediate Support helps in emergency cases.

3.0 PROBLEMS AND CHALLENGES

1. Initially, the Purchase Requisition Form (PRF) is manually updated in the MySQL database by inserting records into the application for each PRF document. This manual process can lead to delays and errors. The challenge is to automate the process of importing multiple PRF entries from an Excel file into the application and storing all records in the database.

2. The current inventory management system allows the team to view and modify inventory records by entering customer name, location, and project data. However, it lacks a feature to efficiently manage and update the inventory based on Original Equipment Manufacturer (OEM) data. This feature is crucial for tracking products that have reached their End of Life (EOL) or End of Support Life (EOSL), which affects their availability, maintenance, and support. The challenge is to integrate OEM data with inventory details to map out their respective EOL and EOSL dates.

4.0 SCOPE OF WORK

1. To study the AIM application workflows and understand source code and Database table schema of the tool.

2. Automate the process of importing Purchase Requisition data from Excel into the application and inserting records into the MySQL database. This automation will eliminate manual data entry, reduce errors, and accelerate the process, thereby minimizing project delays.

3. To introduce a feature that integrates OEM data, including End of Life (EOL) and End of Support Life (EOSL) dates, into the existing inventory management system to enable efficient management and timely updates of inventory records. The OEM determines the EOL date for a product, marking when it will stop producing, marketing, or selling that product. EOL is a key stage in the product's lifecycle as defined by the OEM. Once a product reaches its EOL, the OEM may introduce a new version or replacement product. The OEM also sets the EOSL date, indicating when it will stop offering support services for the product. This includes ending software updates, technical support, and availability of spare parts. After the EOSL date, the OEM no longer provides official support, which can increase risks for customers using the product.

5.0 TOOLS ENVIRONMENTS –

The Standards below are the ones used while developing and thus are not the minimum requirements.

5.1 Hardware Environments:

OS	Windows 10 Professional
Processor	Intel i3
RAM	8GB

Table 1 Hardware Environment

5.2 Software Environments:

IDE	Eclipse
Programming Language	Java (JDK 1.8)
Frontend	JSP
Database	MySQL
Backend	Servlets
Web Server	Apache tomcat server 8.0

Table 2 Software Environment

6.0 AIM Tool Workflow
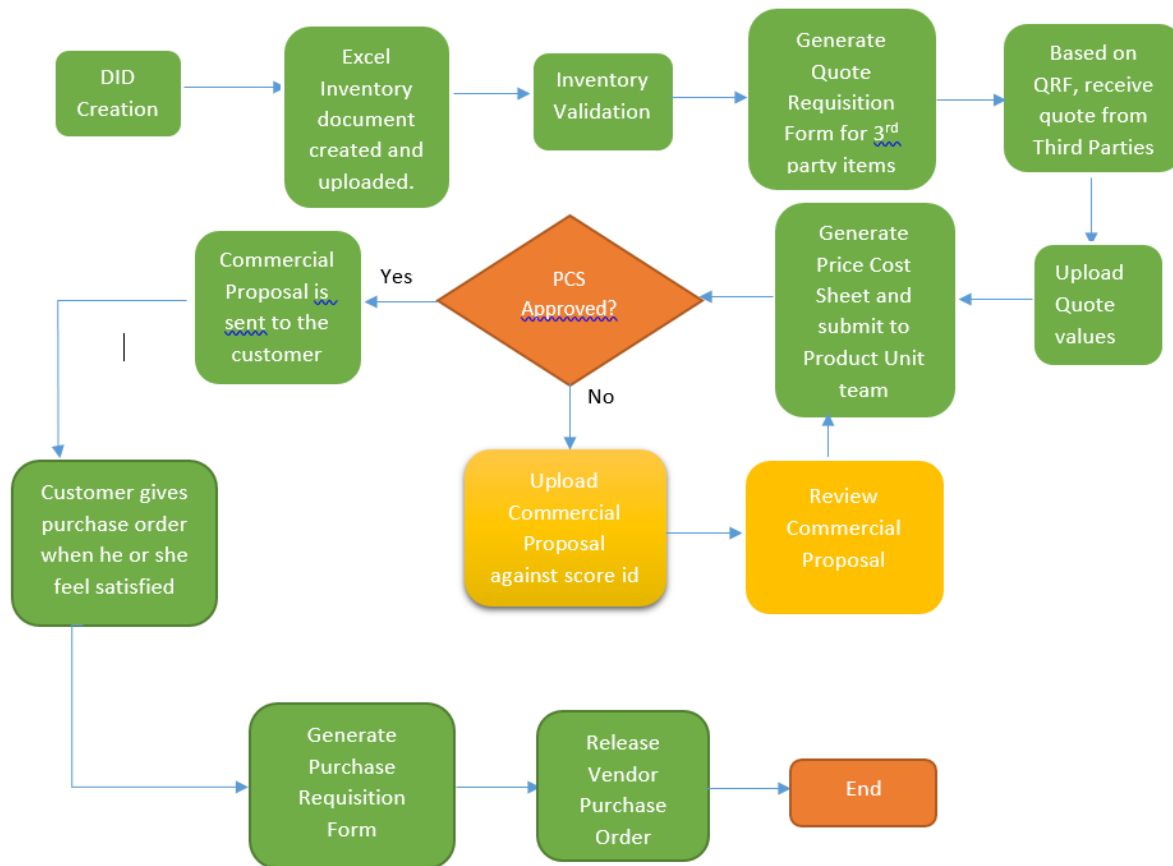
Figure 2AIM Tool Workflow

- ■ Create Deployment ID (DID)

- ■ Upload Inventory

- ■ Validate Inventory

- ■ Submit Quote Requisition Form

- ■ Submit Price Cost Sheet

- ■ Submit Commercial Proposal

- ■ Submit Purchase Requisition Form

- ■ Release Vendor PO

6.1 Create DID

- Deployment ID(DID) is created using the combination of customer and product location.
- Created only for new deployments using AIM tool.
- Combination of client name+ client location+ product built for the client.

- The DID ensures that each document can be distinctly identified, tracked, and referenced throughout its lifecycle.
- To create a DID:
- Menu > Master Configuration > DID

6.2 Uploading Inventory
- Inventory is detailed list of all the components of Deployment, which were sold to customer.
- It could include details such as item descriptions, quantities, prices, and other relevant attributes.
- An Excel carrying inventory data is created having a particular format and then uploaded on the tool.

6.3 Validating Inventory

- The inventory is validated by the Global Customer Support(GCS) team to prevent any gap. Any changes required are updated in the tool by the GCS team and a mail trigger is sent to the respective stakeholder.

6.4 Submitting Quote Requisition Form(QRF)

1. "Quote requisition" typically refers to the process of requesting price quotes in a form from suppliers or service providers.
2. It is used to obtain detailed pricing information for goods, services, or projects before making a purchasing decision.
3. We create QRF for third party components and then submit it to SCM(Supply Change Management) team for Quote Request.
4. **Request for Quote (RFQ)**: A formal document or inquiry sent to potential suppliers asking for detailed pricing and terms for specific goods or services.
5. **Supplier Response**: Suppliers provide their quotes, detailing prices, terms, and conditions.
6. **Comparison**: The received quotes are compared to evaluate the best option based on price, quality, delivery time, and other factors.
7. **Negotiation**: Further discussions may take place to negotiate better terms or clarify details.
8. **Selection**: The best quote is selected based on the evaluation criteria.
9. **To submit the QRC:**
10. **Menu > Quote Requisition Form > Generate**

6.5 Submitting Price Cost Sheet
- PCS determines how much AMC value the company will charge from the customer for product's maintenance.

- It helps businesses calculate the total cost and determine the selling price to ensure profitability.
- After getting the quotation from third party, PCS is created by adding a margin of 20-25%.

6.6 Uploading Commercial Proposal

1. A commercial proposal is a formal document that a business provides to a prospective clients or customer outlining the product or services it offers along with the associated cost, terms and conditions.
2. Commercial proposal is made to persuade the clients to choose the business's offering over competitions.
3. Once the final prices are approved, the commercial proposal is submitted to the Product Unit.

6.7 Customer Purchase Order

1. After negotiations, if the customer feel satisfied by the proposal, customer gives purchase order (PO) which is an AMC's contract to Marketing Unit (MU).

6.8 Submit Purchase Requisition Form (PRF)

1. A PRF is a document to request the procurement of goods and services agreed based on QRF.
2. After the Customer PO is received and Commercial Proposal is uploaded in the AIM tool, the Purchase Requisition Form (PRF) is generated and sent to the SCM team.
3. **Note**: PRF needs to be raised for only third-party items.

6.9 Release Vendor Purchase Order (PO):

1. This involves issuing a purchase order to a vendor, authorizing them to deliver the specified goods or services. The PO includes details such as quantities, prices, and delivery dates.
2. Example: After receiving and approving the commercial proposal, the company issues a purchase order to the supplier to initiate the delivery process.

7.0 INTERFACE DESIGN AND FETURE DEVELOPED

7.1 PURCHASE REQUISTION FORM (PRF) AUTOMATION

Step 1: Upload PRF Excel form designed to upload the purchase requisition excel
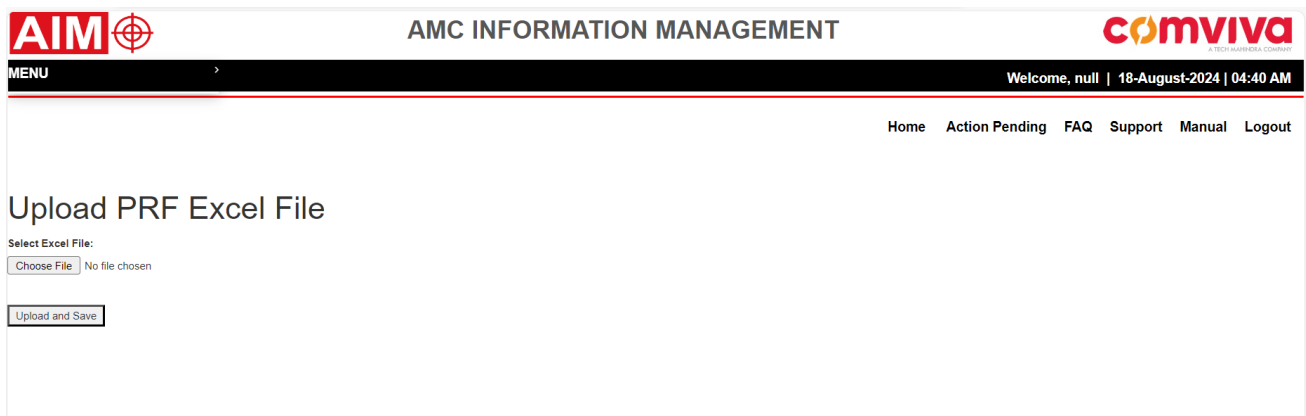
Figure 3 Upload PRF Excel File

Step 2: On Clicking **Choose File, a dialog box will** appear prompting to choose PRF excel files to be uploaded to the database.
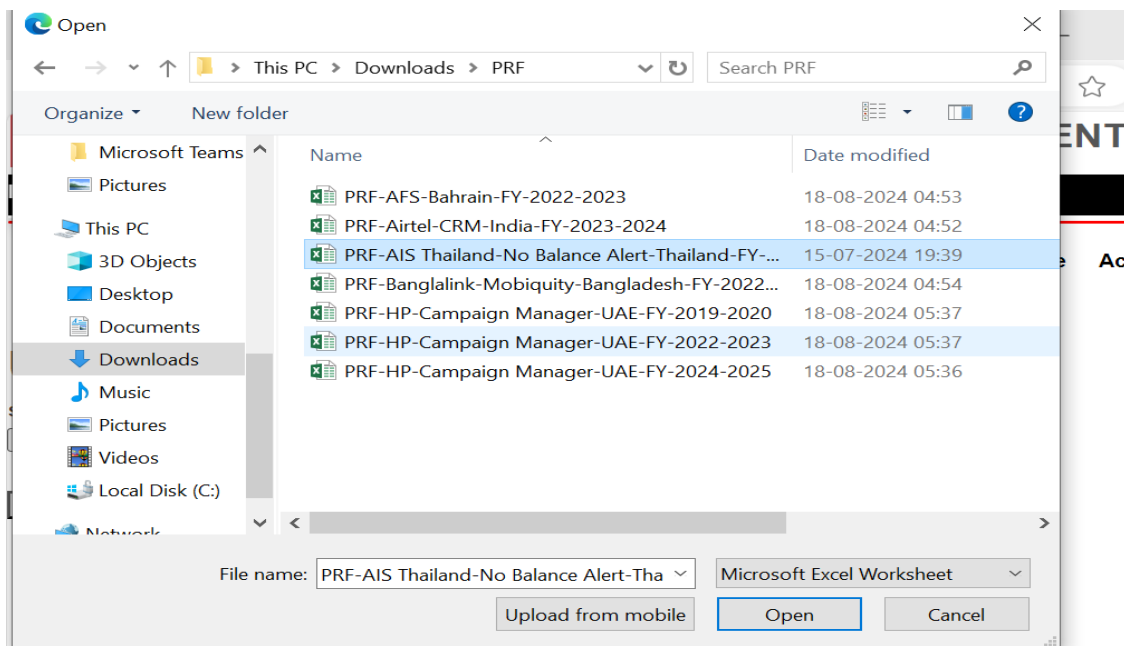
Figure 4 Choose Excel File

Step 3: Now **Click Upload and Save**

Upload Successful!

Your data has been successfully uploaded and inserted into the database.

Upload another file

Figure 5 Excel File uploaded

On clicking it, PRF data will be successfully uploaded and inserted into MySQL database.

On clicking Upload another File, it will redirect to the first page.

8.0 Database Table used in PRF Automation are: -

8.1 SUPPORT_STATUS_TABLE

Field	Type	Null	Key	Default	Extra	
sst	int	NO	PRI	NULL	auto_increment	
customer_name	varchar(500)	NO		-		
country	varchar(500)	NO		-		
region	varchar(500)	NO		-		
account_manager	varchar(500)	NO		-		
sales_manager	varchar(500)	NO		-		
currency	varchar(500)	NO		-		
total_amc_value	varchar(2000)	YES		-		
discount_percent	varchar(500)	NO		-		
discount_value	varchar(500)	NO		-		
discount_justification	varchar(500)	NO		-		
final_amc_value	varchar(2000)	NO		0		
prepared_by	varchar(500)	NO		-		
did_no	varchar(1000)	NO		-		
pin_no	varchar(1000)	NO	MUL	-		
site	varchar(500)	NO		-		
po_no	varchar(1000)	NO		-		
po_date	date	NO		########		
inv_no	varchar(500)	NO		-		
inv_date	date	NO		########		
product_unit	varchar(500)	NO		-		
product_line	varchar(500)	NO		-		
product_name	varchar(500)	NO	MUL	-		
inventory_category	varchar(500)	NO		-		
line_item_desc	varchar(1500)	NO		-		
component_with_model	varchar(500)	NO		-		
serial_no	varchar(1000)	NO		-		
vendor	varchar(500)	NO		-		
order_type	varchar(500)	NO		-		
lic_capacity	varchar(500)	NO		-		
unit_qty	varchar(500)	NO		-		
comviva_sw_version	varchar(500)	NO		-		
product_working_status	varchar(500)	NO		-		

8.2 CUSTOMER_MASTER

Field	Type	Null	Key	Default	Extra	
customer_master_id	int	NO	PRI	NULL	auto_increment	
key_account	varchar(500)	YES		-		
account_name	varchar(500)	YES		-		

customer_name	varchar(500)	YES		-		
customer_type	varchar(500)	YES		-		
country	varchar(500)	YES		-		
channel_partner	varchar(500)	YES		-		
primary_contact	int	YES		0		
primary_site_name	varchar(500)	YES		-		
primary_site_address	varchar(500)	YES		-		
affiliate	varchar(500)	YES		-		
crm_start_date	date	YES		########		
old_customer_name	varchar(5000)	YES		-		
code	varchar(500)	YES		-		
group_id	varchar(100)	YES		NULL		

8.3 LOCATION_MASTER

Field	Type	Null	Key	Default	Extra	
loaction_master_id	int	NO	PRI	NULL	auto_increment	
location_code	varchar(500)	NO		-		
loaction_name	varchar(500)	NO		-		
site_name	varchar(500)	NO		-		
region_name	varchar(500)	NO		-		

8.4CURRENCY_MASTER

Field	Type	Null	Key	Default	Extra	
cum_id	int	NO	PRI	NULL	auto_increment	
code	varchar(500)	NO		-		
name	varchar(500)	NO		-		
symbol	varchar(500)	NO		-		

9.0 TEST CASES

Test Case No.	Description	Input	Expected Output	Actual Output	Pass or Fail
1	**Data Import Validation**: Verify that the PRF data is correctly imported into the MySQL database, ensuring all records are accurately reflected.	PRF file containing a variety of data types and records.	All records from the PRF file should be accurately inserted into the corresponding database tables.	All records from the PRF file gets inserted into the corresponding database tables properly	**Pass**
2	**Field Mapping Accuracy:** Ensure that each field in the PRF document is mapped correctly to the corresponding database column.	PRF document with fields such as Item Name, Quantity, and Date.	Each field in the PRF document should accurately map to the appropriate column in the database.	Each field in the PRF document is accurately mapped to the appropriate column in the database.	**Pass**
3.	**Performance Testing**: Assess the system's performance and efficiency when handling large PRF files to ensure it meets acceptable speed and resource usage.	A large PRF file with numerous records.	The PRF file should be processed within acceptable time limits, and the system maintains performance standards without significant degradation.	The PRF file is processed within acceptable time limits, and the system maintains performance standards without significant degradation.	**Pass**
4.	**Data Integrity Verification**: Check that data from the PRF document matches the data stored in the database, ensuring consistency and accuracy.	PRF document data and the corresponding records in the MySQL database.	Data in the database should exactly match the information in the original PRF document, with no discrepancies.	Data in the database exactly matches the information in the original PRF document, with no discrepancies	**Pass**

10.0 Integrating OEM Data for Effective Management of End of Life (EOL) and End of Support Life (EOSL) Inventory

In this page, we can view the inventory status either by choosing Customer Name, Country and Product or by choosing OEM.

Figure 6 Inventory Status

Suppose, we choose HP as OEM and then click Go.

Figure 7 Choose OEM

This page is a web-based application interface for managing End Of Life (EOL) and End Of Support Life (EOSL) details, specifically under "AMC INFORMATION MANAGEMENT".

It features a table displaying inventory details for software or hardware products, including fields like Serial Number, PIN, Purchase Order Number, Purchase Order Date, Site, Product Name, Line-Item Description etc. We can filter, edit, manage, these entries directly within table.

The page includes navigation buttons for updating, exporting data and adding new items.

Below are the screenshots of different parts of COMVIVA SOFTWARE: INVENTORY DETAIL

Figure 8 Inventory Detail

Figure 9 Comviva Software: Inventory Details Fields Displayed: -{S.N,PIN,PO No, PO Date, Site, Product Name

Search Line Item Descrip	Search Serial No	Search Unit/Quantity	Search License Capacity	Search Version	Search Working Status
Line Item Description	Serial No	Unit/Quantity	License Capacity	Version	Working Status
Freight Charges	NA	1.0			Working
Project Delivery Services Professional Charges	NA	1.0			Working
Planned On-Site Travel Charges	NA	1.0			Working

Figure 9: Comviva Software: Inventory Details Field Displayed: - {Line Item Description, Serial No, Unit/Quantity, License Capacity, Version, Working Status}

Search UAT Date	Search AMC Status	Search AMC % (if applica	Search Supported by Co	Search Current Support	Search Go Live Date
UAT Date	AMC Status	AMC % (if applicable)	Supported by Comviva	Current Support Status	Go Live Date
24-12-2014	Non Applicable	0.0		null	24-12-2014
24-12-2014	Non Applicable	0.0		NA	24-12-2014
24-12-2014	Non Applicable	0.0		NA	24-12-2014

Figure 10 inventory Details fields

Search End of Life	Search End of Support L
End of Life	End of Support Life
15-11-2017	14-11-2022
15-11-2017	14-11-2022
15-11-2017	14-11-2022

Figure 11 Inventory Detail EOL/EOSL

On Clicking Third Party SOFTWARE: INVENTORY DETAILS.

End Of Life/End Of Support Life

| Back | Update | Export To Excel | Add Item |

COMVIVA SOFTWARE   THIRD PARTY SOFTWARE   THIRD PARTY HARDWARE

INVENTORY DETAILS

Note: Click on any field below to edit the line

Search S.N	Search PIN	Search PO No	Search PO Date	Search Site	Search Product Line
S.N	**PIN**	**PO No**	**PO Date**	**Site**	**Product Line**
1	101603	1161	01-02-2012	PR	U&R
2	101603	1161	01-02-2012	PR	U&R
3	101603	1161	01-02-2012	PR	U&R
4	101603	1161	01-02-2012	PR	U&R

Figure 12 : Third Party Software: inventory details: -{S.N,PIN,PO No, PO Date, Site, Product Line}

Search Product Name	Search OEM / Vendor	Search Component Type	Search Line Item Descrip	Search Serial No/ CSI No	Search Unit/Quantity
Product Name	**OEM / Vendor**	**Component Type**	**Line Item Description**	**Serial No/ CSI No**	**Unit/Quantity**
Dynamic Discounting	HP	Harddisk	300 GB HDD for Rackmount Server	NAp	6.0
Dynamic Discounting	HP	Storage	FC Storage Dual Fibre Channel RAID controller cards 2 FC cables 2 FC Mini cables 2 PDU	NAp	1.0
Dynamic Discounting	HP	Harddisk	300 GB HDD for Rackmount Server	NAp	6.0

Figure 13 Third Party Software: Inventory Details: - {Product Name, OEM/Vendor, Component Type, Line Item Description, Serial No/CS No, Unit/Quantity

Search Version	Search Working Status	Search Inventory Value	Search UAT Date	Search AMC Status	Search PO Value For AM
Version	**Working Status**	**Inventory Value**	**UAT Date**	**AMC Status**	**PO Value For AMC**
Not Available	Not Working	0.00	30-03-2012	Non Applicable	0.0
Not Available	Not Working	0.00	30-03-2012	Non Applicable	0.0
Not Available	Not Working	0.00	30-03-2012	Non Applicable	0.0

Figure 14 Third Party Software: Inventory Details:- {Version, Working Status, Inventory Value, UAT Date, AMC Status, PO Value for AMC}

AMC % (if applicable)	Part No	(Vendor/GRN) Invoice Date	Warranty Start Date	Warranty End Date	Warranty Term (Days)
Search AMC % (if applic	Search Part No	Search (Vendor/GRN) Inv	Search Warranty Start Da	Search Warranty End Da	Search Warranty Term (D
0.0		01-01-1900	01-01-1900	01-01-1900	1
0.0		01-01-1900	01-01-1900	01-01-1900	1
0.0		01-01-1900	01-01-1900	01-01-1900	1

Figure 15 Third Party Software: Inventory Details:- {AMC %(If Applicable, Part No, Vendor/GRN invoice date, Warranty Start Date, Warranty End Date, Warranty Term(days)}

Current Support Status	Go Live Date	Comviva Invoice No	End of Life
Search Current Support	Search Go Live Date	Search Comviva Invoice	Search End of Life
null	30-03-2012	0	2017-11-15
null	30-03-2012	0	2017-11-15
null	30-03-2012	0	2017-11-15
null	30-03-2012	0	2017-11-15

Figure 16 Third Party Software: Inventory Details:- {AMC %(If Applicable, Part No, Vendor/GRN invoice date, Warranty Start Date, Warranty End Date, Warranty Term(days)}

Note- Third Party Software Technical Inventory Details shown are wrt to OEM: HP.

On Clicking THIRD PARTY HARDWARE: INVENTORY DETAILS

End Of Life/End Of Support Life

Back | Update | Export To Excel | Add Item

COMVIVA SOFTWARE **THIRD PARTY SOFTWARE** **THIRD PARTY HARDWARE**

INVENTORY DETAILS 1

Note: Click on any field below to edit the line

Search:

Search S.N	Search PIN	Search PO No	Search PO Date	Search Site	Search Product Line
S.N	PIN	PO No	PO Date	Site	Product Line
1	103561	3391	04-03-2014	PR	PreTups
2	103561	3391	04-03-2014	PR	PreTups

Figure 17 Third Party Hardware: Inventory Details:- {S.N, PIN, PO No, PO Date, Site, Product Line }

Search Product Name	Search Make / OEM	Search Component Type	Search Line Item Descrip	Search Serial No	Search Quantity
Product Name	Make / OEM	Component Type	Line Item Description	Serial No	Unit/Quantity
PreTUPS	HP	Switch	Brocade 300B 12/8 SAN switch with 12 SFP & 12 LC-LC cables	CZC413UTFN	1.0
PreTUPS	HP	Switch	Brocade 300B 12/8 SAN switch with 12 SFP & 12 LC-LC cables	CZC413UTGH	1.0

Figure 18 Third Party Hardware: Inventory Details: - {Product Name, Make/OEM, Component Type, Line Item Description, Serial No, Unit/Quantity}

Search Working Status	Search Inventory Value	Search UAT Date	Search AMC Status	Search PO Value For AM	Search AMC % (if applica
Working Status	Inventory Value	UAT Date	AMC Status	PO Value For AMC	AMC % (if applicable)
Working	0.00	24-12-2014	Non Applicable	14619.0	0.0
Working	0.00	24-12-2014	Non Applicable	0.0	0.0

Figure 19 Third Party Hardware: Inventory Details:- {Working Status, Inventory Value, UAT Date, AMC Status, PO Value For AMC, AMC%(if applicable) }

Search Model	Search Part No	Search DID	Search (Vendor/GRN) Inv	Search Warranty Start Da	Search Warranty End Da
Model	Part No	DID	(Vendor/GRN) Invoice Date	Warranty Start Date	Warranty End Date
Brocade 300 SAN Switch		FT Orange-PreTUPS-Mauritius	07-05-2014	01-04-2014	31-03-2017
Brocade 300 SAN Switch		FT Orange-PreTUPS-Mauritius	07-05-2014	01-04-2014	31-03-2017
HP DL380p Gen8		FT Orange-PreTUPS-Mauritius	07-05-2014	30-04-2014	28-07-2017

Figure 20 Third Party Hardware: Inventory Details:- {Model, PartNo, DID, Vendor/GRN Invoice Date, Warranty Start Date, Warranty End Date }

Search Current Support	Search Go Live Date	Search HW (packing List	Search Comviva Invoice	Search End of Life	Search End of Support L
Current Support Status	Go Live Date	HW (packing List) Sign-off	Comviva Invoice No	End of Life	End of Support Life
NA	24-12-2014	01-01-1900	0	dd-mm-yyyy	dd-mm-yyyy
NA	24-12-2014	01-01-1900	0	dd-mm-yyyy	dd-mm-yyyy
NA	24-12-2014	01-01-1900	0	15-11-2017	15-11-2022

Figure 21 Third Party Hardware: Inventory Details:- {Current Support Status, Go Live Date, HW(packing List), Comviva Invoice No, End Of life}

Note: - Third Party Hardware Technical Inventory Details are w.r.t to OEM: HP

On clicking any row of the table, a dialog box appears allowing to save the row entry into respective tables of the database

ADD PRODUCT

Field	Value	Field	Value
Fin Year	2017-2018	Description	300 GB HDD for Rackmount Server
Component Type	Harddisk	OEM	HP
Make		Model	
Serial No	NAp	Part No.	
(Vendor/GRN) Invoice Date of the Component	01-01-1900	Warranty Start Date	01-01-1900
Warranty End Date	01-01-1900	Warranty Terms Days	1
PRF No.		Vendor PO/Contract-Agreement No	
3rd Party SLA agreed with Vendor		Host Name	
IP Address		Product	Dynamic Discounting
Site	PR	Type of Support	NA
Supported by Comviva	--Select--	Current Support Status	null
AMC %age (if applicable)	0.0	HW Packing List Signoff	01-01-1900
Comviva Support Start Date	25-12-2016	Comviva Support End Date	31-12-2017
PO No.	3391	PIN No.	103561
Comviva Invoice No		3rd Party SLA agreed with Customer	
Inventory Category	TP Hardware	Inventory Value	0.00
Version		License Capacity	
AMC Applicable	Non Applicable	Unit/Quantity	1.0
End Of Life	dd-mm-yyyy	End Of Support Life	dd-mm-yyyy

Save

Figure 22 Product Detail

On clicking save, Alert box indicates that details of that particular row of third party software technical details are being updated to the database.
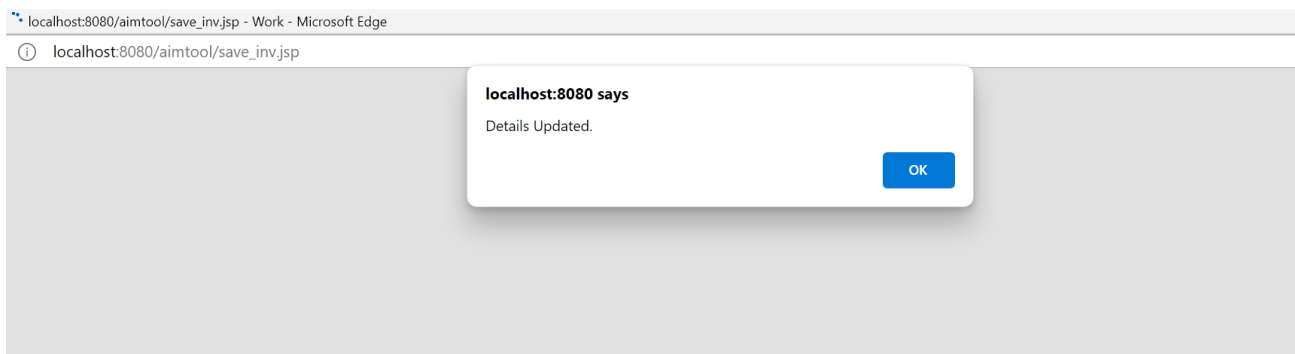
Figure 23 Alert

End Of Life/End Of Support Life

| Back | Update | Export To Excel | Add Item |

Figure 24 EOL/EOSL Page

10.1 Update:

Click "Update" button to update document of Inventory

10.2 EXPORT TO EXCEL

Click "Export to Excel" button to excel document of inventory.

Mahindra COMVIVA

AMC INVENTORY DETAILS

SL No	in id	DID	customer name	loaction name
1	759	FT Orange-PreTUPS-Mauritius	FT Orange	Mauritius
2	760	FT Orange-PreTUPS-Mauritius	FT Orange	Mauritius

Figure 25 Inventory Details

product line	name	category product	oem	component type
PreTups	PreTUPS	TP Hardware	HP	Switch
PreTups	PreTUPS	TP Hardware	HP	Switch

component type	line item desc	order type	licence capcity	serial no
Switch	Brocade 300B 12/8 SAN switch with 12 SFP & 12 LC-LC cables	Upgrade		CZC413UTFN
Switch	Brocade 300B 12/8 SAN switch with 12 SFP & 12 LC-LC cables	Upgrade		CZC413UTGH

10.3 ADD ITEM

To Add Inventory Item, click on "Add Item" button and then fill mandatory fields and then click on "GO" button.

Figure 26 Add Item

10.4 BACK

On clicking "BACK", we go back to the first page

Figure 27 Inventory Status

11.0 Database Tables used for INVENTORY

11.1 INVENTORY_MASTER

| Field	Type			Null	Key	Default	Extra	
in_id	int			NO	PRI	NULL	auto_increment	
fy	varchar(200)			NO		-		
component_type	varchar(1000)			NO		-		
oem	varchar(500)			NO		-		
make	varchar(500)			NO		-		
model	varchar(500)			NO		-		
serial_no	varchar(1000)			NO		-		
vendor_invoice_date	date			NO		########		
warranty_startdate	date			NO		########		
warranty_enddate	date			NO		########		
warranty_terms_days	varchar(500)			NO		-		
prf_no	varchar(1000)			NO		-		
host_name	varchar(1000)			NO		-		
ip_address	varchar(2000)			NO		-		
product	varchar(1000)			NO		-		
site	varchar(1000)			NO		-		
type_of_support	varchar(1000)			NO		-		
supported_comviva	varchar(500)			NO		-		
amc_percent	varchar(1000)			NO		-		
hw_signoff_date	date			NO		########		
comviva_support_startdate	date			NO		########		
comviva_support_enddate	date			NO		########		
po_no	varchar(2000)			NO		-		
pin_no	varchar(2000)			NO	MUL	-		
comviva_invoice_no	varchar(2000)			NO		-		
tp_sla_with_customer	varchar(2000)			NO		-		
vendor_po_agreement	varchar(1000)			YES		-		
tp_sla_with_vendor	varchar(1000)			NO		-		
decs	varchar(1000)			NO		-		
customer	varchar(500)			YES		NULL		
inventory_value	varchar(500)			YES		NULL		
currency	varchar(500)			YES		NULL		
line_item_desc	varchar(8000)			NO		-		
part_no	varchar(500)			YES		NULL		
current_support_status	varchar(500)			YES		NULL		
uat_date	date			YES		NULL		
go_live_date	date			YES		NULL		
version	varchar(500)			YES		NULL		
licence_capcity	varchar(500)			YES		NULL		
category_product	varchar(500)			YES		NULL		
location	varchar(500)			YES		-		

Field	Type	Null	Key	Default	Extra
did_no	varchar(500)	YES		-	
product_line	varchar(500)	NO		-	
in_status	int	NO		0	
prepared_by	varchar(500)	NO		-	
add_date	date	NO		########	
validate_inventory_status	int	NO		0	
dod	date	NO		########	
inventory_status	int	NO		0	
didid	int	YES		NULL	
pinid	int	YES		NULL	
b2b_startdate	date	NO		########	
b2b_enddate	date	NO		########	
po_date	date	NO		########	
group_name	varchar(800)	NO		-	
order_type	varchar(800)	NO		-	
quantity	varchar(800)	NO		-	
product_status	varchar(800)	NO		-	
amc_status	varchar(500)	NO		-	
pu_id	varchar(500)	NO		-	
vendor_quote	varchar(500)	NO		-	
po_value_for_amc	varchar(1800)	NO		0	
amc_start_date	date	NO		########	
amc_end_date	date	NO		########	
eol	datetime	YES		########	
eosl	datetime	YES		########	
oldname	varchar(500)	NO		-	
upload_by	varchar(500)	YES		-	

11.2 pu_master

Field	Type	Null	Key	Default	Extra
pu_id	int	NO	PRI	NULL	auto_increment
pu_name	varchar(500)	NO		NULL	
pu_desc	varchar(500)	NO		NULL	
erp_pu_id	varchar(500)	YES		-	

11.3 DID_MASTER

Field	Type	Null	Key	Default	Extra
did_master_id	int	NO	PRI	NULL	auto_increment
customer	varchar(500)	NO		-	
Product	varchar(500)	NO		-	
location	varchar(500)	NO		-	
sal_call_log	varchar(500)	NO		-	
sla_response	varchar(500)	NO		-	
sla_resolve	varchar(500)	NO		-	
account_manager_name	varchar(500)	NO		-	

sales_manager_name	varchar(500)	NO		-		
support_type	varchar(500)	NO		-		
support_category	varchar(500)	NO		-		
spares	varchar(500)	NO		-		
preventive_manintainance	varchar(500)	NO		-		
amc_type	varchar(500)	NO		-		
margin	int	NO		1		
comments	varchar(500)	NO		-		
did_no	varchar(500)	NO		-		
sla_type	varchar(500)	YES		-		
issue	varchar(500)	YES		-		
restore	varchar(500)	YES		-		
sme	varchar(500)	NO		-		
gcs	varchar(500)	NO		-		
pu	varchar(500)	NO		-		
mu	varchar(500)	NO		-		
did_status	varchar(500)	NO		-		
sw_margin	int	YES		NULL		
cmv_margin	int	YES		NULL		
cst_cntdet	varchar(2000)	NO		-		
exlv1_name	varchar(800)	NO		-		
exlv1_desg	varchar(800)	NO		-		
exlv1_emid	varchar(800)	NO		-		
exlv1_cntno	varchar(800)	NO		-		
exlv2_name	varchar(800)	NO		-		
exlv2_desg	varchar(800)	NO		-		
exlv2_emid	varchar(800)	NO		-		
exlv2_cntno	varchar(800)	NO		-		
upload_did	varchar(800)	NO		-		
customer_contact	varchar(500)	YES		NULL		
customer_mail	varchar(500)	YES		NULL		
bids	varchar(500)	NO		-		
pcsstartdate	date	NO		########		
nextpcsdate	date	NO		########		
amcenddate	date	NO		########		
amcstartdate	date	NO		########		
end_customer	varchar(2000)	NO		-		
remark	varchar(800)	NO		-		
amc_eng	varchar(800)	NO		-		
oem_vendor	varchar(200)	NO		-		
hw_margin	varchar(800)	NO		0		
mu_master	varchar(500)	NO		-		
per_target_value	varchar(200)	YES		10		
value_type	varchar(200)	YES		Percentage		
sme1	varchar(500)	YES		-		
dummy_customer_mail	varchar(100)	NO		-		

mail_trigger	varchar(100)	NO		NO		
pu_master_id	varchar(45)	YES		0		
pu_name	varchar(500)	YES		-		
amc_start_date_tani	date	YES		########		
amc_end_date_tani	date	YES		########		
amc_start_date_tani_next	date	YES		########		
amc_end_date_tani_next	date	YES		########		
eol_mail_status	varchar(45)	YES		0		
po_val	varchar(500)	YES		0		
Curr	varchar(500)	YES		-		
customer_emails	varchar(5000)	YES		NULL		

11.4 Finyear_master

Field	Type	Null	Key	Default	Extra	
finyear_id	int	NO	PRI	NULL	auto_increment	
fin_stdate	date	YES		########		
fin_enddate	date	YES		########		
fin_onehalfstdate	date	YES		########		
fin_onehalfenddate	date	YES		########		
fin_twohalfstdate	date	YES		########		
fin_twohalfenddate	date	YES		########		
fin_curyear	int	YES		0		

11.5 artifact_master

Field	Type	Null	Key	Default	Extra	
id	int	NO	PRI	NULL	auto_increment	
document_type	varchar(800)	NO		NULL		
customer	varchar(800)	NO		NULL		
country	varchar(800)	NO		NULL		
product	varchar(800)	NO		NULL		

11.6 CUSTOMER_MASTER

Field	Type	Null	Key	Default	Extra	
customer_master_id	int	NO	PRI	NULL	auto_increment	
key_account	varchar(500)	YES		-		
account_name	varchar(500)	YES		-		
customer_name	varchar(500)	YES		-		
customer_type	varchar(500)	YES		-		
country	varchar(500)	YES		-		
channel_partner	varchar(500)	YES		-		
primary_contact	int	YES		0		
primary_site_name	varchar(500)	YES		-		
primary_site_address	varchar(500)	YES		-		
affiliate	varchar(500)	YES		-		
crm_start_date	date	YES		########		
old_customer_name	varchar(5000)	YES		-		
code	varchar(500)	YES		-		

| group_id | varchar(100) | YES | | NULL | | |

11.7 LOCATION_MASTER

Field	Type	Null	Key	Default	Extra	
loaction_master_id	int	NO	PRI	NULL	auto_increment	
location_code	varchar(500)	NO		-		
loaction_name	varchar(500)	NO		-		
site_name	varchar(500)	NO		-		
region_name	varchar(500)	NO		-		

12.0 TEST CASES

Test Case No.	Description	Input	Expected Output	Actual Output	Pass or Fail
1	**SQL Query Accuracy**: Verify that the modified SQL query correctly retrieves inventory records based on the OEM data.	OEM data file and modified SQL query.	The query should retrieve inventory records based on OEM	The query accurately retrieves inventory records based OEM.	**Pass**
2	**EOL Date Retrieval**: Ensure that the modified query correctly retrieves and displays EOL dates for products based on OEM data.	OEM data file with EOL dates and modified SQL query.	EOL dates for products should be accurately retrieved and displayed according to the updated query.	EOL dates for products are accurately retrieved and displayed according to the updated query.	**Pass**
3.	**EOSL Date Retrieval**: Confirm that the modified query correctly retrieves and displays EOSL dates for products based on OEM data.	OEM data file with EOSL dates and modified SQL query.	EOSL dates for products should be accurately retrieved and displayed according to the updated query.	EOSL dates for products are accurately retrieved and displayed according to the updated query.	**Pass**
4.	**Data Consistency Check**: Ensure that the EOL and EOSL dates retrieved by the modified query are consistent with the source OEM data.	Comparison of OEM data file and query results.	EOL and EOSL dates retrieved by the query should match the dates in the OEM data file.	EOL and EOSL dates retrieved by the query match the dates in the OEM data file.	**Pass**

13.0 CONCLUSION

In conclusion, addressing the inefficiencies in PRF data entry and inventory management improves operational efficiency. Automating the PRF update process streamlines operations, reduces errors, and prevents delays, resulting in timely and accurate data handling.

Integrating OEM data, including End of Life (EOL) and End of Support Life (EOSL) dates, into the inventory management system enables better tracking and management of products, ensuring timely updates and effective decision-making. These enhancements lead to improved efficiency, reduced risks, and more effective inventory management.

14.0 BENEFITS

1. **Increased Efficiency:**

Automation of the PRF entry process reduces manual workload, speeds up data handling, and minimizes project delays.

2. **Enhanced Accuracy:**

Automated data entry and integration reduce the risk of human error, ensuring more accurate and reliable information in the database.

3. **Timely Updates:**

Integrating OEM data with EOL and EOSL dates provides timely updates on product statuses, allowing for proactive management.

4. **Improved Inventory Management:**

Efficient tracking of products nearing EOL or EOSL helps in planning replacements or upgrades, preventing potential disruptions in operations.

5. **Reduced Operational Risks:**

Managing products with up-to-date EOL and EOSL information mitigates risks associated with unsupported or outdated items.

6. **Better Decision-Making:**

Access to accurate and current data supports informed decision-making regarding inventory management, procurement, and maintenance.

7.   **Streamlined Processes:**

Automation and enhanced features streamline workflow, reducing manual processes and increasing overall productivity.

16.0 REFERENCES

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