



**T R I N I T I**

**Triniti Workflow Engine 2018**



# Agenda

- Quick Introductions
- Why use Workflow?
- Use cases
- Capabilities
- Task types
- How to design workflow
- History
- Technology
- Q&A





# Improve Efficiency?



**How about Data  
Quality?  
Makes Repeatable  
Tasks Reliable**



# Use cases - Internal

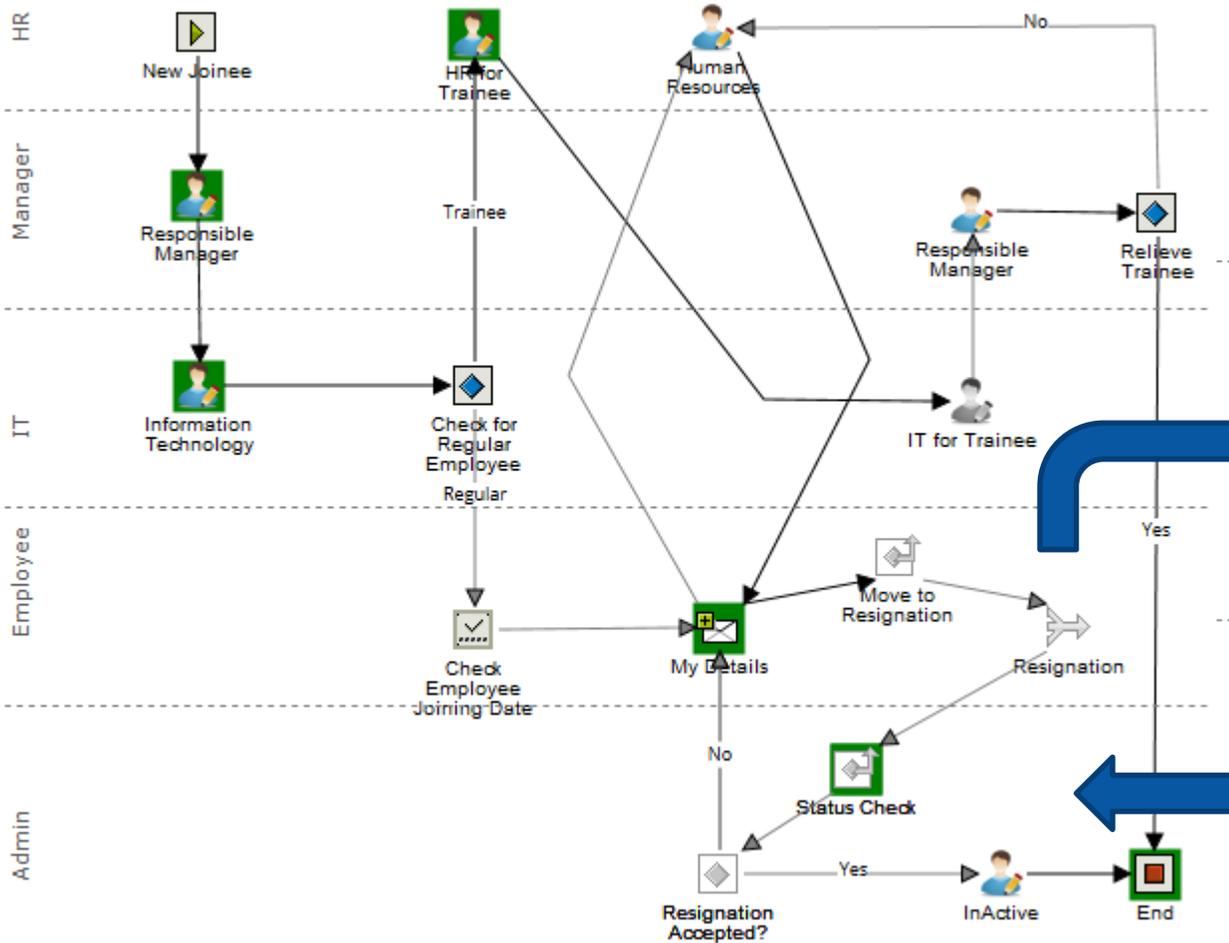
- Human Resources
  - Employee Hire 2 Retire
  - Appraisal
  - Vacation / Work from home / Out of Station
  - Address Proof
  - Visa
- Finance
  - SOW to PO
  - Vendor Payment Process (AP Automation)
- Administration
  - Scheduled Duty

# Use cases – Commercial Products

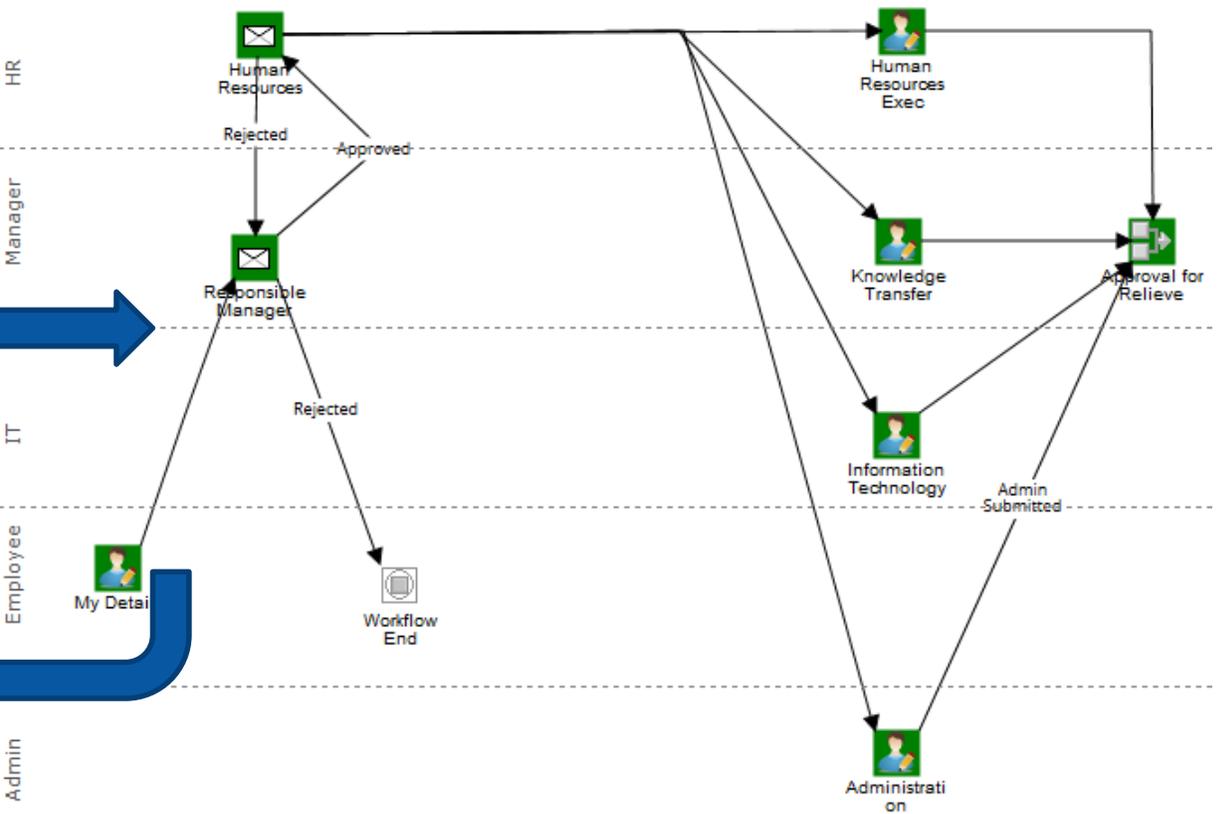
- Master Data Management
  - Product
  - Customer
  - Supplier
  - GL Accounting Flexfields
  - Locations
- Project Management
  - Issue & Migration Process

# Human Resources - Hire 2 Retire

## Employee Onboarding process

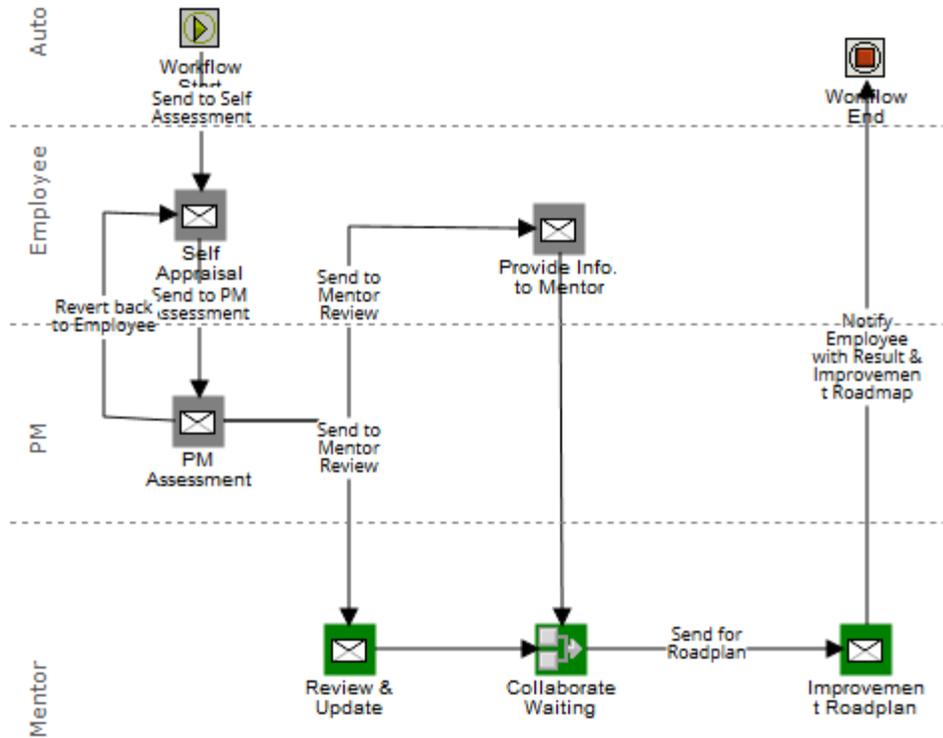


## Employee Resignation process



These workflows notify respective departments to fill required data & take action. Different execution flows based on employee type using conditional flows. Newly joined employee gets configured Welcome email a day before joining date using Wait & Proceed feature. Employee Onboarding process is integrated with Resignation process using Sub-Workflow feature, and if all departments approve then only employee will be relieved using AND Gate feature.

# Human Resources - Appraisal



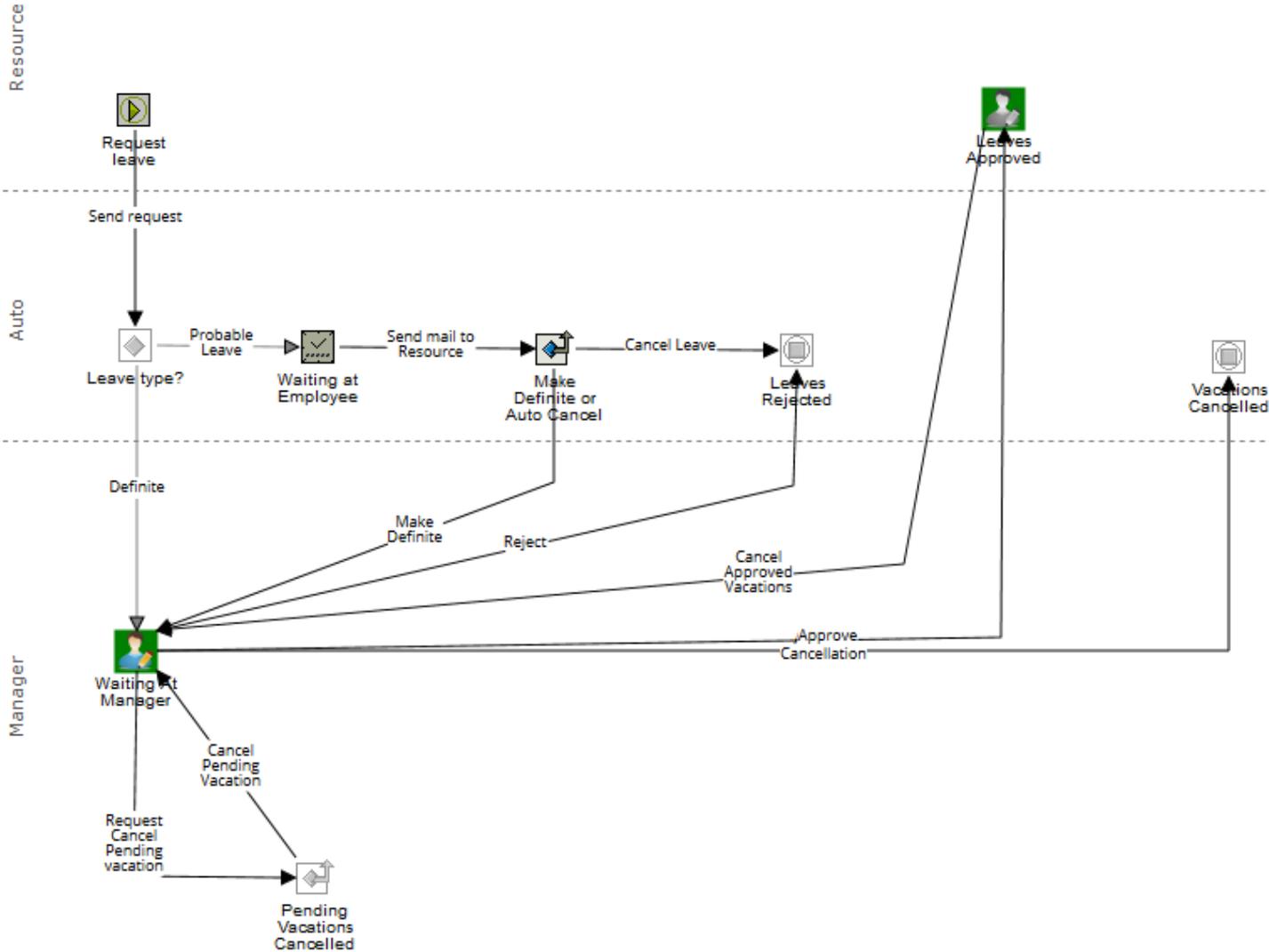
Yearly Employee Appraisal uses this workflow. Workflow notifies Employee, Project Manager & Mentor to fill rating on some aspects using emails. The emails contain links to worksheet to fill rating and comments on aspects considered for appraisal, and action links to proceed in the workflow.

Employee, Project Manager and Mentor are get notified by system repeatedly based on configured interval to take action until they take action as each state in the workflow is time bound.

Employee & Mentor collaboratively work to finalize the ratings and based on their agreement appraisal record moves to next state in the workflow.

Finally employee gets emails with complete details of his appraisal.

# Human Resources - Vacation / Work from home / Out of Station



This workflow is used for Vacation / Work from home / Out of Station requests. Employee can apply Definite / Probable vacation.

If vacation is Definite then Manager gets Approve / Reject email with Vacation details. If the Manager is also on vacation then the email will be sent to next level Manager.

If vacation is Probable then request will be waited for configured duration and proceeded (Wait & Proceed feature) for Employee confirmation to make it definite or to cancel.

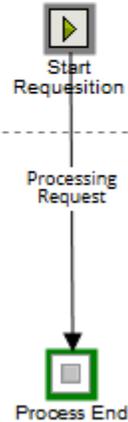
Employee can also request for vacation cancellation and Manager can either approve / reject the vacation cancellation request through email.

# Human Resources – Address Proof & Visa

## Address Proof

In India, employee needs Address Proof document for utilizing some Government/Non-Government facilities so Employee can request the system for the same and system generates & sends an email with address proof document attached based on the data available in the system.

Employee



Admin

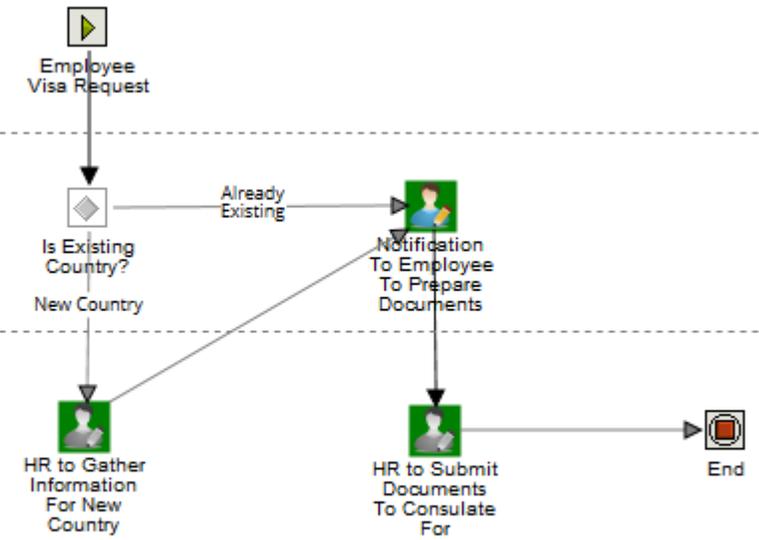
## Visa

Manager request Visa for his employee in the system, if country details are already available in the system then employee gets an email with checklist for visa processing otherwise email will be sent to Administration to enter required information into the system. Once Administration takes action then Employee gets email with checklist. Once Employee takes action after preparing the visa docs, Administration gets email to submit them to consulate.

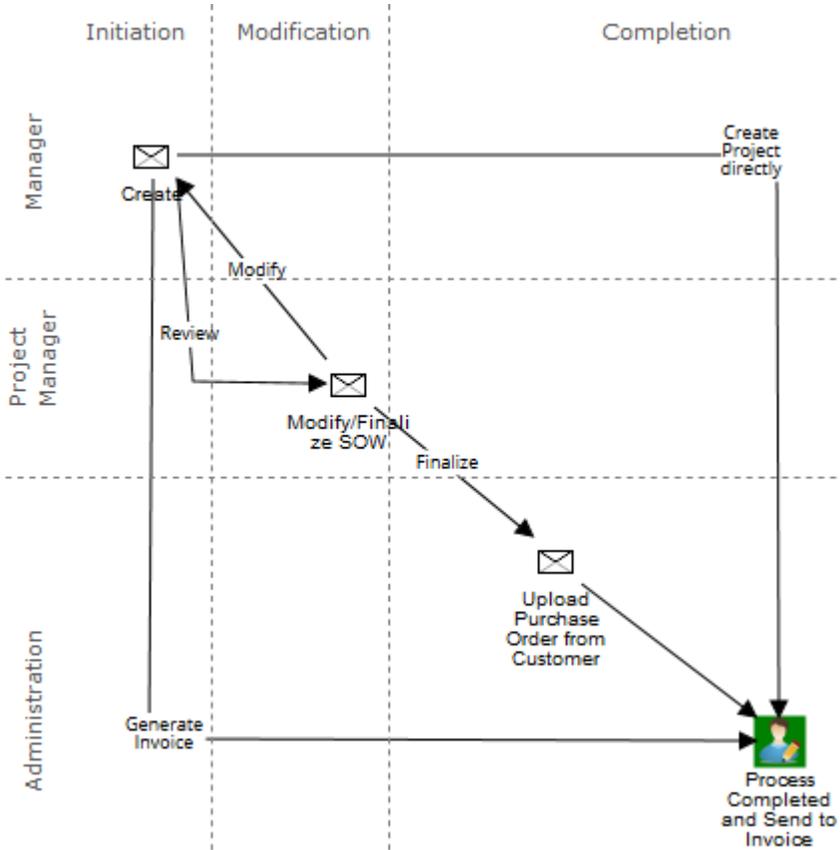
Manager

Employee

Admin



# Finance – SOW to PO



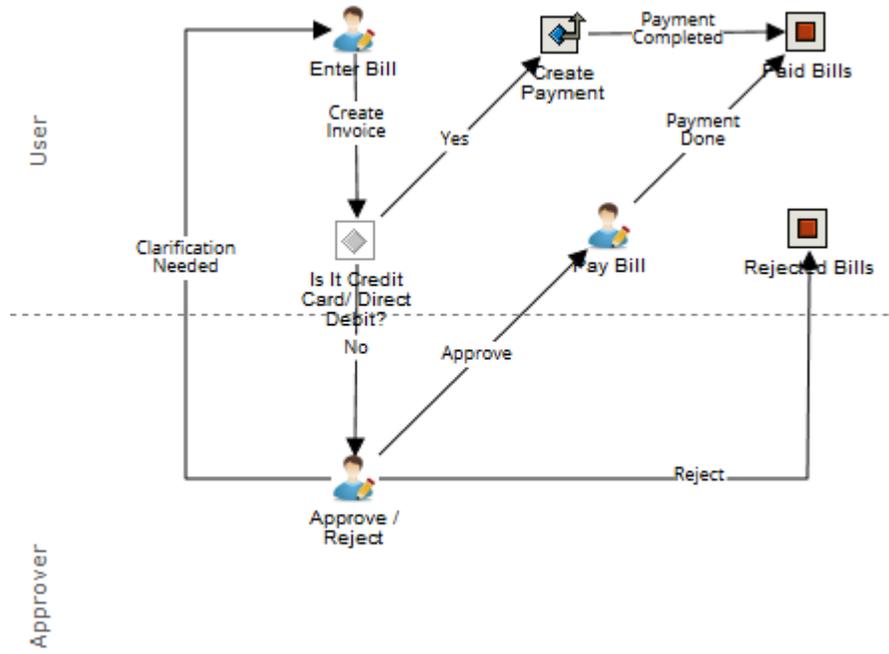
SOW created in the system with list of resources assigned and their details including Billable / Non-billable items assignment.

Attaching PO to the SOW after SOW finalization.

Respective Project with resources will be created with right access successfully upon completion of the SOW.

Project Manager and Assigned resources will be notified with details by the system automatically.

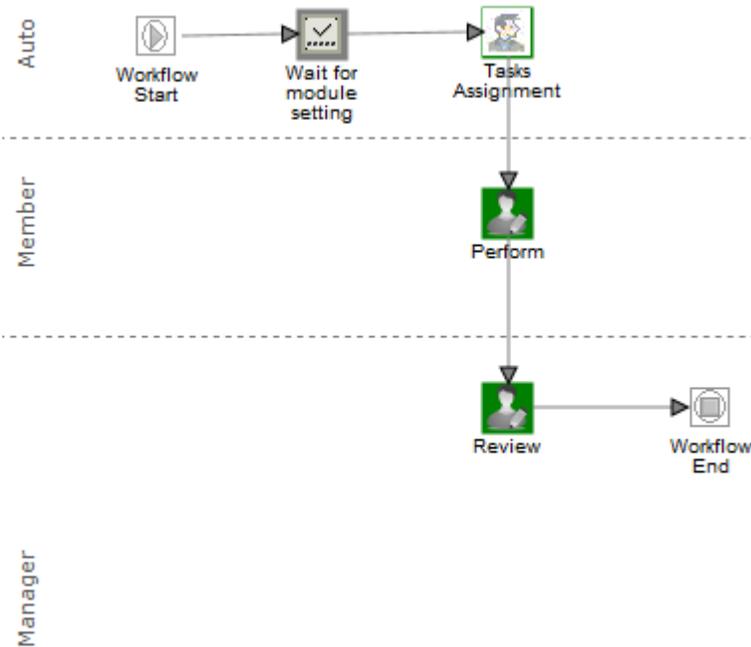
# Finance – Vendor Payment Process



Administration user enters Vendor Invoice in the system. If Bill Payment is Direct Debit or Credit Card then no approval is required otherwise system sends email to Approver with details about payment and Approve, Reject & Classification Needed actions.

If Approver takes Approve action then Payment will be completed in the system.

# Administration – Scheduled Duty



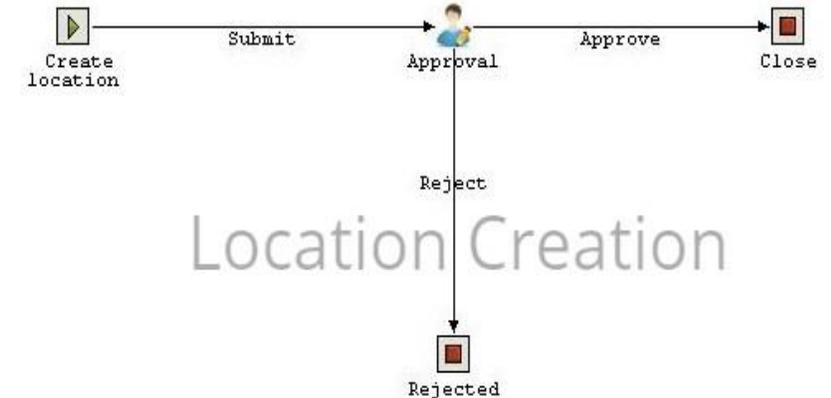
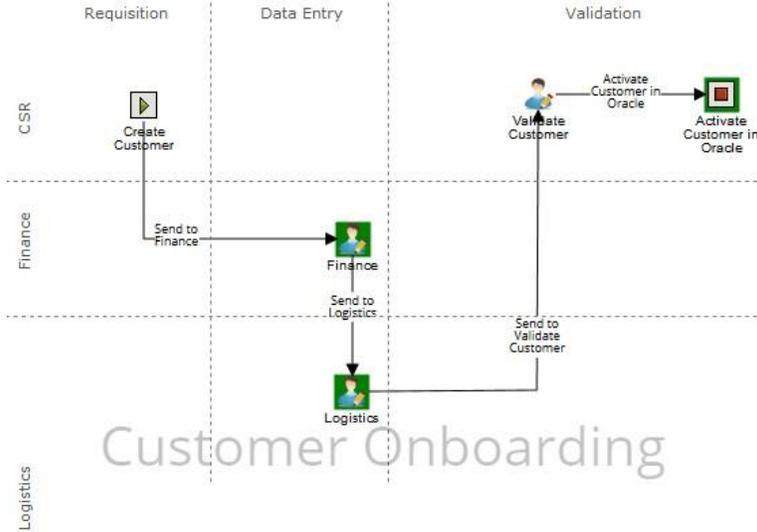
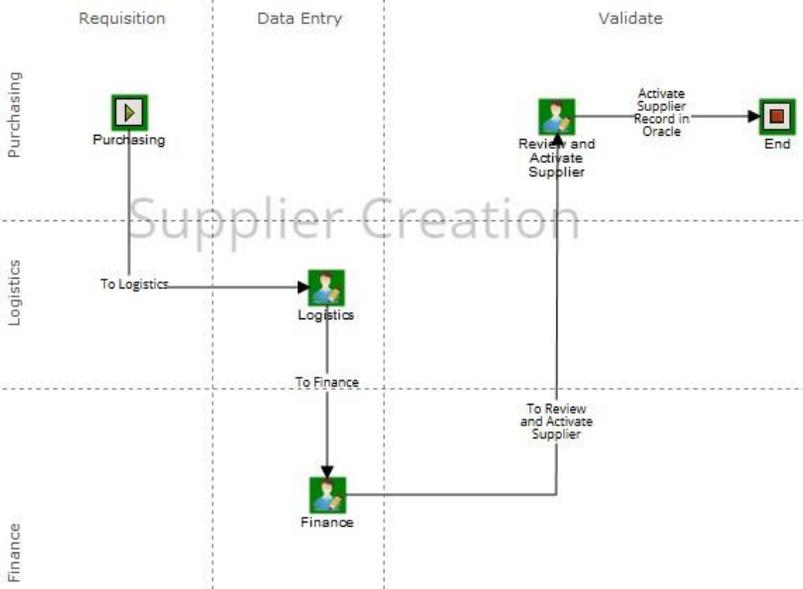
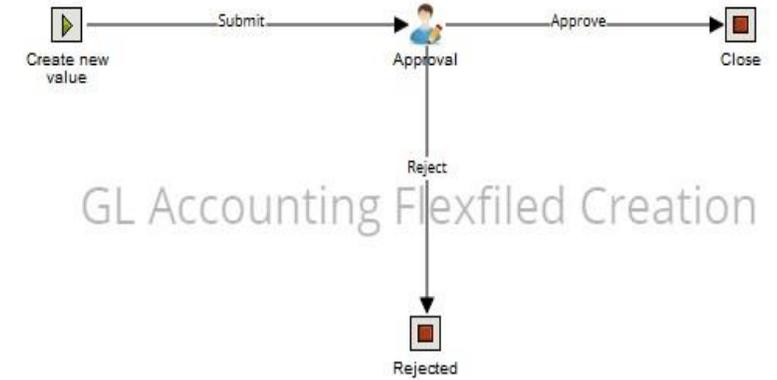
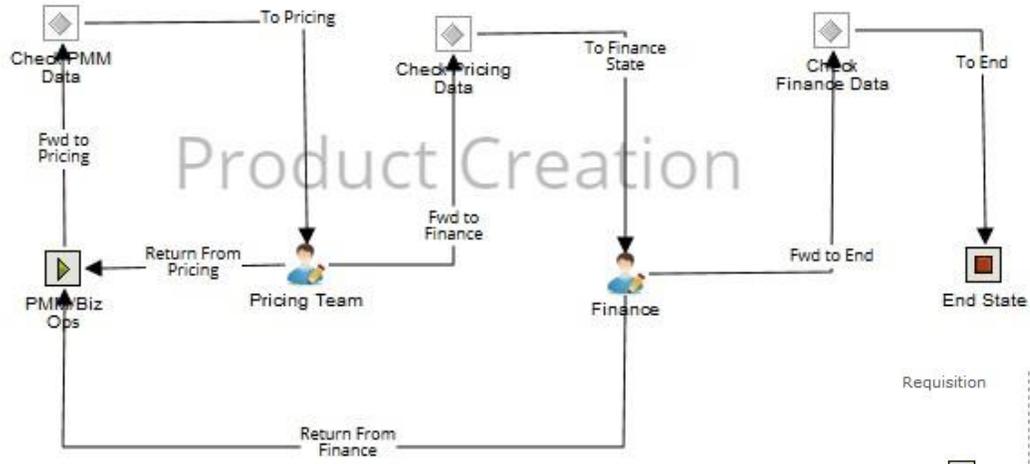
Task creation in this workflow is automated by templates and schedules. There 14 Administrative duties are automated and scheduled. Based on the configuration, tasks will be created automatically in this workflow, sets respective modules and resources for manual tasks.

Respective resource will get email with task details, once he/she completes the task and takes action, Administration Manager gets email to review the task. Administration Manager closes the task.

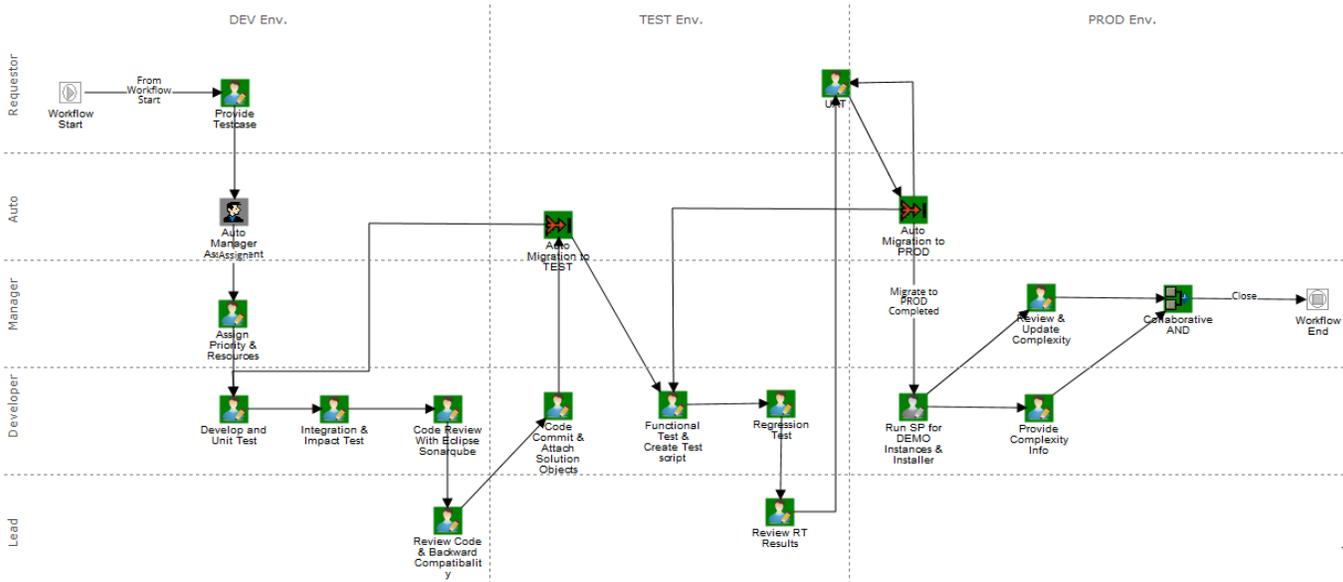
Auto Issue templates are configured for Auto Workflows. Based on configuration – Issue template and Schedule, tasks will be created by replacing the token with value in the issue template. These tasks can be enabled/disabled based on requirement.

#	Module	Issue template	Description	Schedule	Is schedule enabled?	Schedule start date MMM d, yyyy	Schedule end date MMM d, yyyy
1	HR - Payroll	HR - Payroll - send Payroll details for \$CURRENT_MONTH\$	Due date is 25th of Every Month	Every Month on 23rd at 7:30 AM IST	✓	May 3, 2013	Dec 31, 9999
2	Administration - Vendors Payments	Administration - Vendors Payments for \$PREVIOUS_MONTH\$	Due date is 14th of Every Month	Every Month on 1st at 7:30 AM IST	✓	Mar 20, 2013	Dec 31, 9999
3	Administration - Filing	Administration - Filing for \$PREVIOUS_MONTH\$	Due date is 15th Of Every Month	Every Month on 1st at 7:30 AM IST	✓	Mar 20, 2013	Dec 31, 9999
4	Administration - Rents	Administration - Rents for \$PREVIOUS_MONTH\$	Due date is 5th of Every Month	Every Month on 1st at 7:30 AM IST	✓	Mar 20, 2013	Dec 31, 9999
5	Administration - Office Electricity Bill	Administration - Office Electricity Bill for \$PREVIOUS_MONT	Due date is 5th of Every Month	Every Month on 1st at 7:30 AM IST	✓	Mar 20, 2013	Dec 31, 9999
6	Administration - Providend Fund	Administration - Providend Fund for \$PREVIOUS_MONTH\$	Due date is 15th of Every Month	Every Month on 1st at 7:30 AM IST	✓	Mar 20, 2013	Dec 31, 9999
7	Administration - Professional Tax	Administration - Professional Tax for \$PREVIOUS_MONTH\$	Due date is 10th of Every Month	Every Month on 1st at 7:30 AM IST	✓	Mar 20, 2013	Dec 31, 9999
8	Administration - ESIC	Administration - ESIC for \$PREVIOUS_MONTH\$	Due date is 21th of Every Month	Every Month on 1st at 7:30 AM IST	✓	Mar 20, 2013	Dec 31, 9999
9	Administration - Professional Tax	Administration - Annual Professional Tax	Due date is 30th April	Every Year on April 1st 10 at 7:30 AM IST	✓	Jun 12, 2014	Dec 31, 9999
10	Administration - Income Tax Challan	Administration - Income Tax Challan Payment for \$PREVIOL	Due date is 7th of Every Month	Every Month on 1st at 7:30 AM IST	✓	Mar 20, 2013	Dec 31, 9999
11	Finance - TDS	Finance - TDS for \$PREVIOUS_MONTH\$	Due date is 7th of Every Month	Every Month on 1st at 7:30 AM IST	✓	Mar 20, 2013	Dec 31, 9999
12	Finance - QB	Finance - QB - Update Account details in QB	Due date is Same day	Every Week Day at 7:30 AM IST	✗	Mar 21, 2013	Dec 31, 9999
13	Finance - Bank Reconciliation	Finance - Bank Reconciliation - Reconciliation of Cheque Pay	Due date is Same day	Every Week Day at 7:30 AM IST	✗	Mar 21, 2013	Dec 31, 9999
14	Amex Statement	Finance - Amex statement to be sent to Srinath	Due date is the 15th of Every mo	Every Month on 14th at 7:30 AM IST	✓	Sep 19, 2013	Dec 31, 9999

# Master Data Management - Workflows



# Project Management – Issue & Migration Process



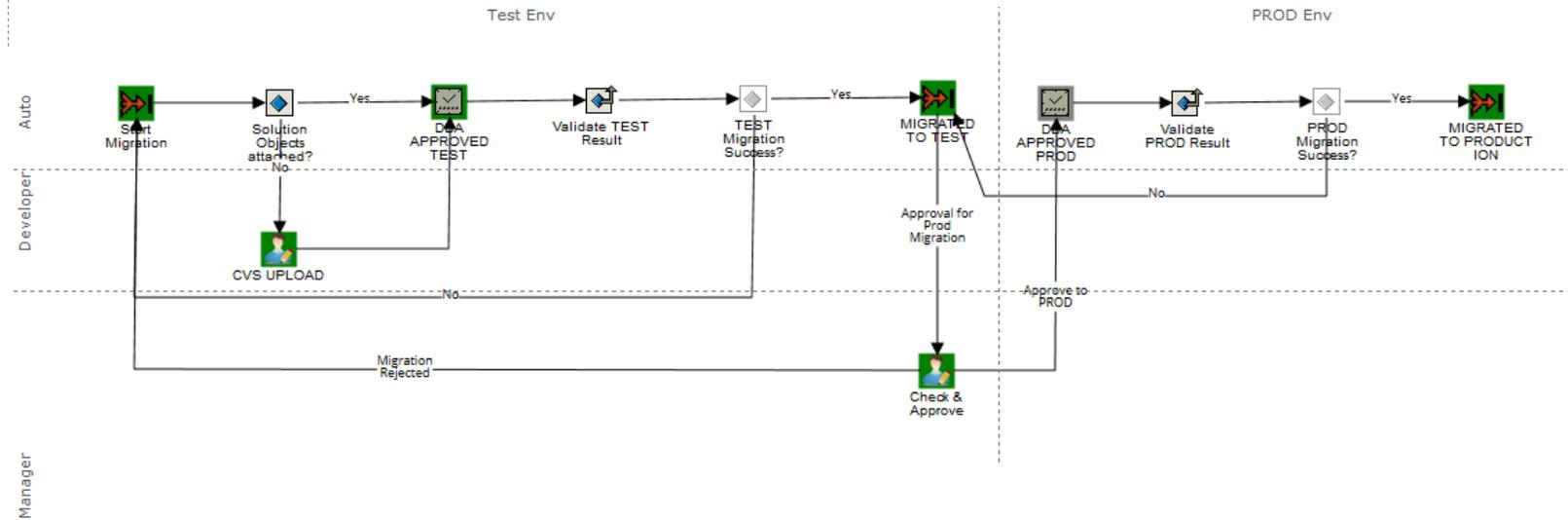
Issue Development process has Auto resource assignment based on configuration and integrated to Migration process using Inter-Workflow Integration feature. Migration task will be executed automatically from Issue Development process for a specific target instance, once migration task is completed then control will be returned back to Issue Development process.

Both Developer & Manager collaboratively work to update the complexity of the solution provided.

Migration process is executed automatically from Issue Development process based on the target environment configurations.

Migration Approval email will be sent to Manager with list of solution objects attached with downloadable links.

Approved migrations are will be applied to target environment based on schedule and migration result emails will be sent to Developer and Manager with migration log attached.



# Capabilities

- Manual & Automated tasks and operations with effectivity, to build simple to complex workflows
- Highly configurable & customized with controllers
  - Zero coding for simple task workflows
  - Workflows with Data entry/validation/processing require controllers' development
- Configurable & Customized (conditional) notifications with data (inline eWorksheet), activities and actions
- Segregation of Duties (SOD) and Stewardship
  - Configurable SOD Violation rules
    - Prevent when error
    - Continue with warning
- Workflow task tracking & audit with Path executed diagram
- Dashboard & Trends on Workflow tasks



# Capabilities - Cont...

- Security
  - Role & User Based
  - Data field level access control
- Access
  - Desktop for power users
    - Create / Maintain workflows, complex data entry in the execution, etc.,
  - Mobile for non-power users
    - Workflow notifications
    - Simple form data entry
    - Accept / Reject actions
- Integration
  - With other applications & web services seamlessly
  - With Triniti Task & Project Management

# Email from Workflow

- Configurable & Customized (conditional) notifications with data (inline eWorksheet), activities and actions
- Email Template Editor – Design email with field tokens whose values will be replaced at the time of execution
- Configurable conditions for email with fields where condition is evaluated with field value at the time of execution

 **Trinit** <noreply@trinit.com>  
to me

 **Approval request for GL Natural Account segment value creation**

Kevin Smith is requesting for accounting master data values to be created in Oracle EBS.

**Master Data Area** : General Ledger Accounting  
**Structure Name** : ADB Accounting Flex  
**Segment Name** : Account  
**Creation Date** : 2018-04-10 01:33:56.213

Account Values	Description	Child Value Ranges Specified
3396	Utility Expenses	3397-3400
3398	Utility Expenses	No Range Defined

Please use the below links either to approve or reject these values to be created:

[Approve](#)  
[Reject](#)

This message was automatically generated by Trinit MDM Suite to inform you of a change in master data. Please do not reply to this email.  
Thank you for using Trinit MDM Suite!!

# SOD Violation rules & Result

**Resource who Developed the solution should not review the solution**

Workflow State Node Types SOD Rules Feedback Form Token Info

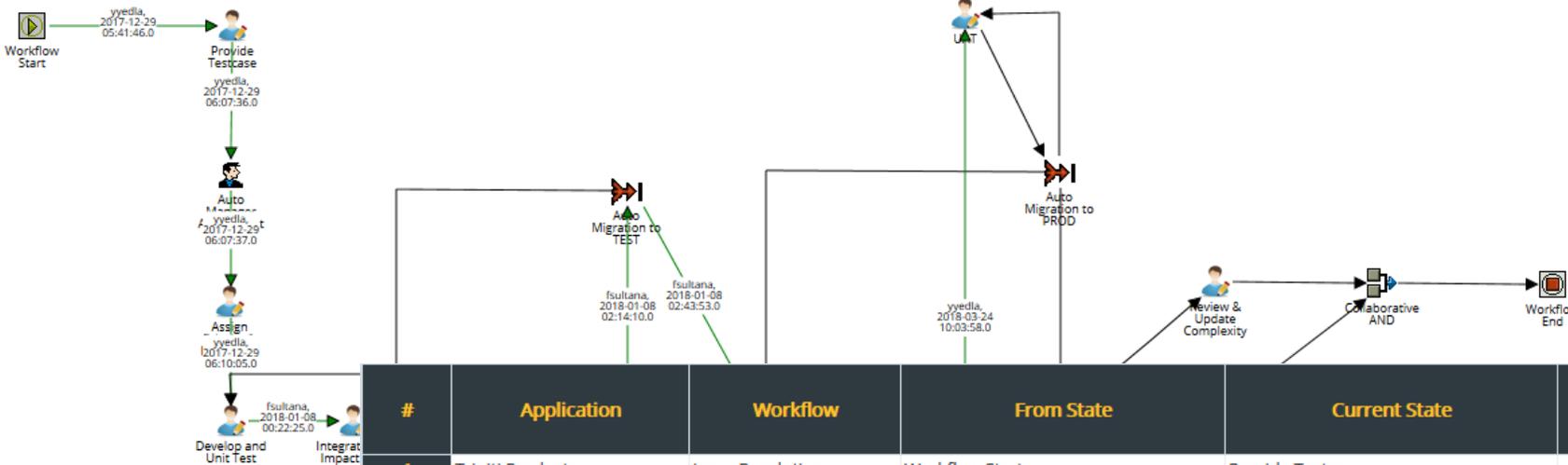
Please press TAB KEY after entering values

Auto copy

SNO	State Name	L	Violation Flag	L
1	Develop and Unit Test		ERROR	

	Project	Workflow	Task ID	Sub-task 1	Sub-task 2	Violation	Violated by	Violated on
1	Triniti Products	Enhancement Development	820975	Review Solution	Develop and Unit Test	PREVENTED	ggopinathan	3/9/18 10:37:15 AM
2	Triniti Products	Enhancement Development	828966	Review Solution	Develop and Unit Test	PREVENTED	schigurupati	1/9/18 05:11:18 AM
3	Triniti Products	Enhancement Development	828966	Review Solution	Develop and Unit Test	PREVENTED	schigurupati	1/9/18 05:10:46 AM
4	Triniti Products	Enhancement Development	829115	Review Solution	Develop and Unit Test	PREVENTED	teja.miryala	12/23/17 12:49:26 ...
5	Triniti Products	Enhancement Development	817264	Review Solution	Develop and Unit Test	PREVENTED	ssadanaveni	12/22/17 02:41:03 ...
6	Triniti Products	Enhancement Development	817264	Review Solution	Develop and Unit Test	PREVENTED	ssadanaveni	12/22/17 02:40:09 ...
7	Triniti Products	Enhancement Development	817264	Review Solution	Develop and Unit Test	PREVENTED	ssadanaveni	12/22/17 02:37:06 ...
8	Triniti Products	Enhancement Development	817264	Review Solution	Develop and Unit Test	PREVENTED	ssadanaveni	12/22/17 02:36:30 ...
9	Triniti Products	Enhancement Development	817264	Review Solution	Develop and Unit Test	PREVENTED	ssadanaveni	12/22/17 02:35:50 ...
10	Triniti Products	Enhancement Development	817264	Review Solution	Develop and Unit Test	PREVENTED	ssadanaveni	12/22/17 02:34:52 ...
11	Triniti Products	Enhancement Development	817264	Review Solution	Develop and Unit Test	PREVENTED	ssadanaveni	12/22/17 02:34:14 ...
12	Triniti Products	Enhancement Development	817264	Review Solution	Develop and Unit Test	PREVENTED	ssadanaveni	12/22/17 02:34:02 ...
13	Triniti Products	Enhancement Development	817264	Review Solution	Develop and Unit Test	PREVENTED	ssadanaveni	12/22/17 02:33:41 ...
14	Triniti Products	Enhancement Development	828005	Review Solution	Develop and Unit Test	PREVENTED	skolluru	12/2/17 09:50:16 PM
15	Triniti Products	Enhancement Development	828005	Review Solution	Develop and Unit Test	PREVENTED	skolluru	12/2/17 09:49:37 PM
16	Triniti Products	Enhancement Development	828005	Review Solution	Develop and Unit Test	PREVENTED	skolluru	12/2/17 09:48:59 PM
17	Triniti Products	Enhancement Development	828005	Review Solution	Develop and Unit Test	PREVENTED	skolluru	12/2/17 09:48:34 PM

# Workflow task Tracking & Audit



#	Application	Workflow	From State	Current State	Instance Present	Instance State Owner	In-Time M/d/yy hh:mm:ss	Out-Time M/d/yy hh:mm:ss	Co
1	Triniti Products	Issue Resolution	Workflow Start	Provide Testcase	0	yyedla	12/29/17 05:41:46	12/29/17 06:07:36	New I
2	Triniti Products	Issue Resolution	Provide Testcase	Auto Manager Assignment	0	yyedla	12/29/17 06:07:36	12/29/17 06:07:37	New I
3	Triniti Products	Issue Resolution	Auto Manager Assignment	Assign Priority & Resources	0	yyedla	12/29/17 06:07:37	12/29/17 06:10:05	New I
4	Triniti Products	Issue Resolution	Assign Priority & Resources	Develop and Unit Test	0	yyedla	12/29/17 06:10:05	1/8/18 12:22:25	New I
5	Triniti Products	Issue Resolution	Develop and Unit Test	Integration & Impact Test	0	fsultana	1/8/18 12:22:25	1/8/18 12:22:54	New I
6	Triniti Products	Issue Resolution	Integration & Impact Test	Code Review With Eclipse Sonarqube	0	fsultana	1/8/18 12:22:54	1/8/18 12:23:30	New I
7	Triniti Products	Issue Resolution	Code Review With Eclipse Sonarqube	Review Code & Backward Compatibility	0	fsultana	1/8/18 12:23:30	1/8/18 12:28:40	New I
8	Triniti Products	Issue Resolution	Review Code & Backward Compatibility	Code Commit & Attach Solution Objects	0	schigurupati	1/8/18 12:28:40	1/8/18 02:14:10	New I
9	Triniti Products	Issue Resolution	Code Commit & Attach Solution Objects	Auto Migration to TEST	0	fsultana	1/8/18 02:14:10	1/8/18 02:43:53	New I
10	Triniti Products	Issue Resolution	Auto Migration to TEST	Functional Test & Create Test script	0	fsultana	1/8/18 02:43:53	3/20/18 02:31:25	New I
11	Triniti Products	Issue Resolution	Functional Test & Create Test script	Regression Test	0	fsultana	3/20/18 02:31:25	3/24/18 08:05:13	New I
12	Triniti Products	Issue Resolution	Regression Test	Review RT Results	0	fsultana	3/24/18 08:05:13	3/24/18 10:03:58	New I
13	Triniti Products	Issue Resolution	Review RT Results	UAT	1	yyedla	3/24/18 10:03:58		New I
14	Application Object Migrator	Auto Migration Workflow	Solution Objects attached?	DBA APPROVED TEST	0	fsultana	1/8/18 02:19:42	1/8/18 02:41:38	New I
15	Application Object Migrator	Auto Migration Workflow	Validate TEST Result	TEST Migration Success?	0	fsultana	1/8/18 02:41:37	1/8/18 02:43:52	Move
16	Application Object Migrator	Auto Migration Workflow	DBA APPROVED TEST	Validate TEST Result	0	fsultana	1/8/18 02:41:38	1/8/18 02:43:52	New I
17	Application Object Migrator	Auto Migration Workflow	TEST Migration Success?	MIGRATED TO TEST	1	fsultana	1/8/18 02:43:52		New I

# Data Entry – Simple form to Complex Hierarchy

Send request Clear all

Leave Application Available Leaves Holidays

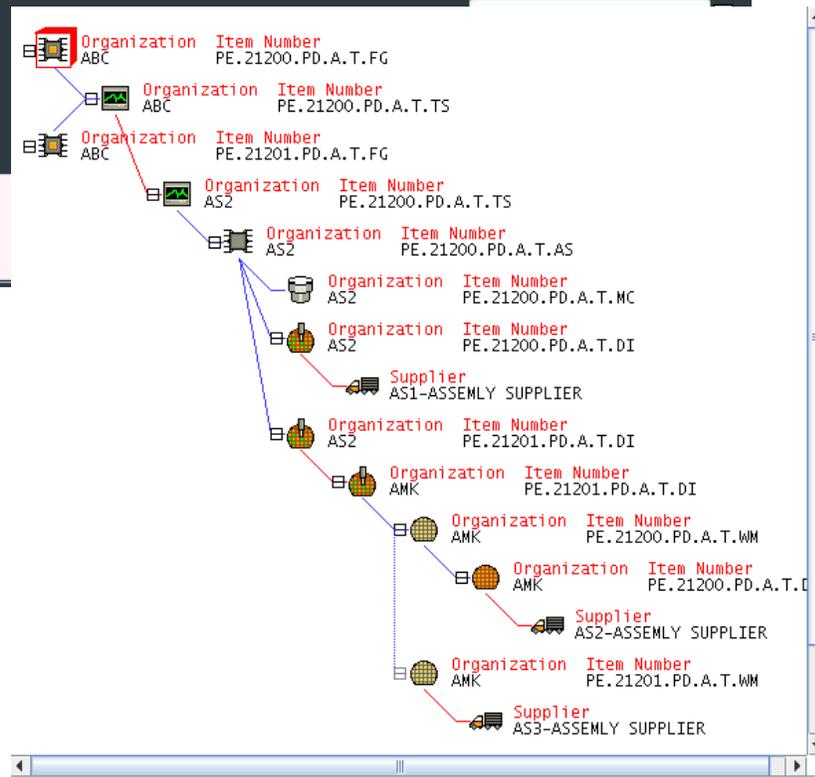
From  Definite / Probable Leave? Definite

To  My Tasks are Re-assigned to

Applying for?  Available on

Total Days

Reason



Node Property Sheet

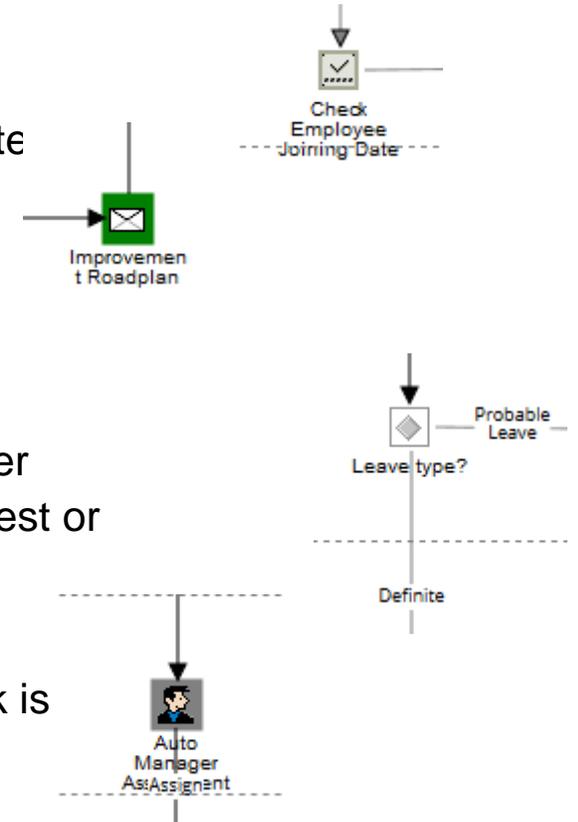
TRT\_FG

BOM Components		Notification	Routings	Sourcing Rule	MultiOrgAssignment	
Item	Item Attributes	Categories	Item Catalogs	Item Costs	Item Dfts	BOM
Property		Value				
Part Number	PE					
Part Model Prefix	20210					
Product Life Cycle	PD					
Package Type	A					
Product Changes	T					
BOM Level	FG					
Item Number	PE.21200.PD.A.T.FG					
Item Description	PE.21200.PD.A.T.FG					
Organization	ABC					
Copy From Item						
Item Status	PRODUCTION					
Template Name	FIN_GDS					
Master Template	FIN_GDS					
Assignment Set	PRODUCTION					
Item Modify Flag						
Debug Flag	N					
Item Type	FIN_GDS					
segment9						

Apply Clear ClearAll Undo

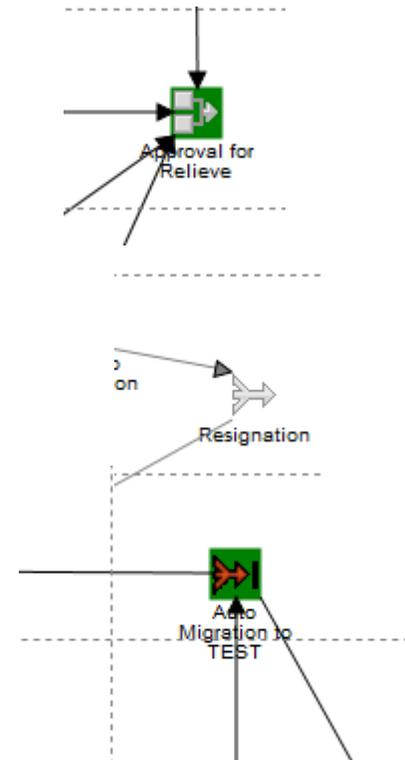
# Task types

- Manual
  - Data Entry (Simple form to Hierarchy)
  - Approve / Reject through email
- Automated
  - Wait & Proceed (Time interval / Scheduled)
    - Hire 2 Retire - Sends Welcome email to employee one day before joining date
  - Scheduled notification until action is performed
    - Appraisal - Timelines are provided for each stage in the process
  - Escalation
  - Conditional flow
    - Vacation – Based on vacation type either Wait & Proceed or Send to Manager
    - Migration – Based on migration status, Issue is moved to either Functional Test or Attach solution objects
  - Auto resource assignment
    - Issue Resolution – Based on Issue Module, Assign Priority & Resources task is assigned to respective configured Product/Module Manager
  - ETL task
    - Automated data migration to assign tests to candidates in Recruitment process

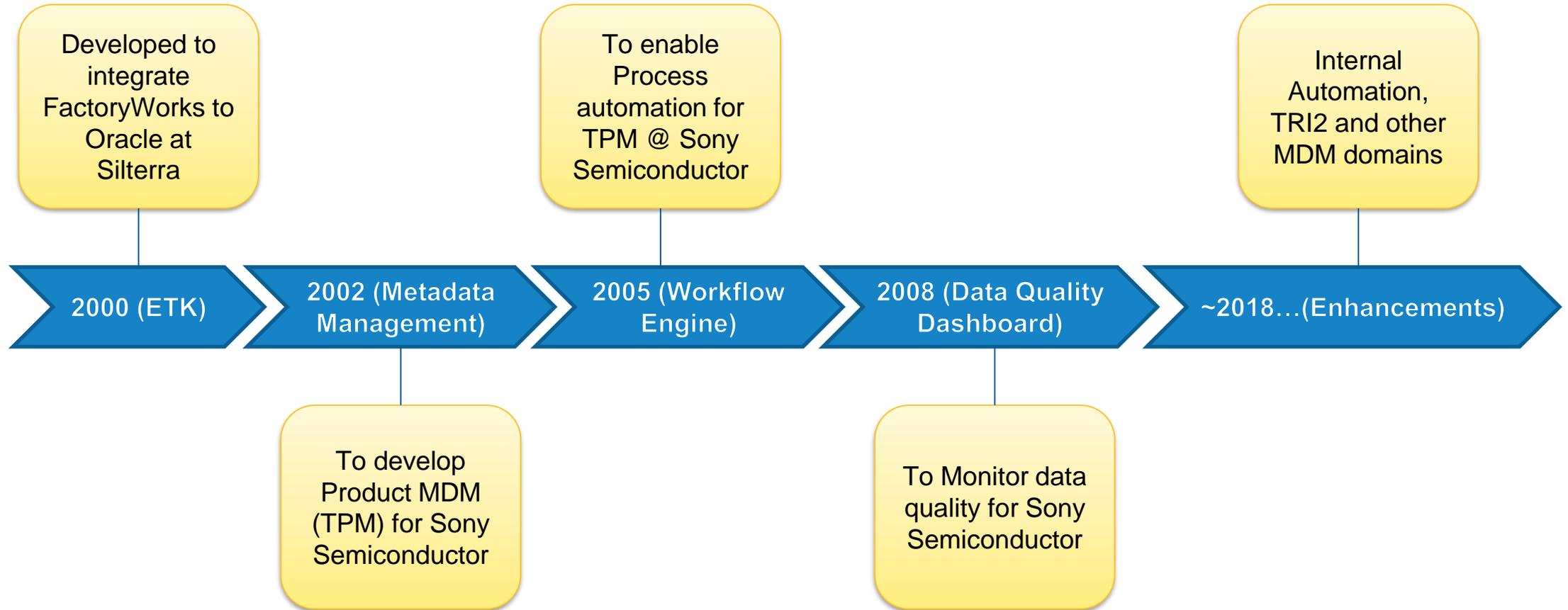


# Task types – Cont...

- Automated
  - AND Gate
    - Issue development - updating complexity of the solution in agreement with resource
  - OR Gate
  - Sub Workflow
    - Hire 2 Retire – Employee can resign and record will be moved to Resignation sub workflow
  - Inter Workflow
    - Issue & Migration workflow - Migration will be created automatically for the Attached solution objects of an Issue



# History



# Architecture & Technology

*Java (server and Applet)  
ADF (Client) with Active  
design  
Servlets (Container)  
Loosely coupled  
components*



Q & A



**T R I N I T Y**

*Thank You*



**T R I N I T Y**