Scenario Overview

The IT department for the Areteans is tired of sizing hardware requirements for the numerous PRPC applications the business wishes to implement. They have decided to build an application that will:

■ Allow users to enter basic information about the application they wish to build

■ Use a rules engine to determine the most appropriate hardware

■ Allow users to decide if they wish to purchase the hardware

■ Send the order to the fulfilment team if the user decides to purchase the hardware.

■ Manage the Risk Mitigation process

While the initial implementation will be for the IT Department, it is envisioned that this application will be used within other departments after the initial deployment, with minor specialization.

Actors

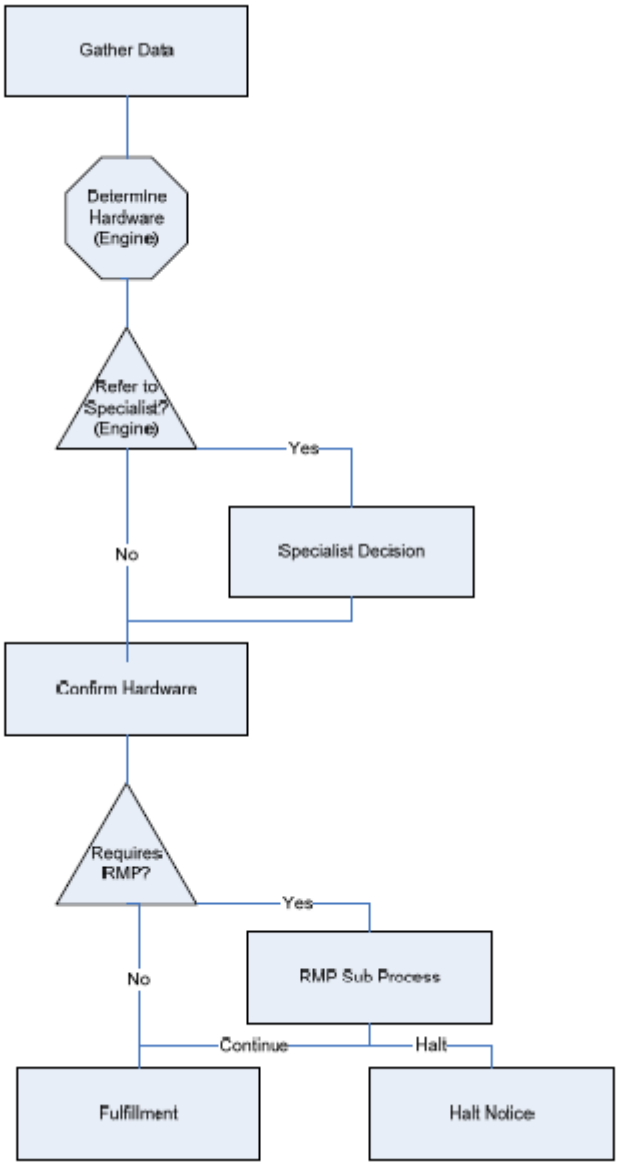
■ Initiator – Initiates the original hardware request. They will be responsible for entering basic inputs related to the application they wish to build.

■ IT Specialist – Manages the rules that determine the hardware and also manually selects hardware that cannot automatically be determined by the rules engine.

■ Fulfilment User – Member of the Fulfilment team who processes the requests from a workbasket.

■ IT Manager – Can update the Risk Mitigation rules, and runs reports.

Process Overview



Process Details

Gather Data

The process begins when the Initiator clicks “Request New Application”. The Initiator is then presented with the following screens and should be able move between screens easily – even if required information is not entered. However, the user cannot move to the Determine Hardware step until all required fields have been entered.

Screen 1: [Basic Info]

■ Application Name [Required]

■ Application Description

■ Project Sponsor

■ Priority (Choose From: Standard or Rushed)

Screen 2: [App Details]

■ Application Exposure (Choose From: Internal Only, Customer Facing, or Mixed)

■ Application Type (Choose From: Call Center, Back Office, Pure Engine, Self-Service)

■ Peak Active Users

The list of values for Application Exposure and Application Type should be stored in a single data table and retrieved dynamically.

Screen 3: [Key Features]

The user can select 0 – many of the following key features:

■ Mission Critical

■ 24/7/365

■ Complex User Interface

■ Complex Interfaces

■ Complex Computations

Large Objects

The list of possible Key Features will eventually be housed in a table in an external database so that it can be used by other applications. However, this external table isn't available yet. Implement an interim solution to simulate this table. This interim solution need not be concerned with performance. Design your application so that you will have to make minimal changes to your implementation when the 'real' database table becomes available.

Determine Hardware

This is a pure rules engine decision that uses the input gathered above to arrive at one of the following outcomes:

■ Hardware Package 1

■ Hardware Package 2

■ Hardware Package 3

■ Refer to Specialist

To determine which package is appropriate the following rules are applied to determine the "HSCORE". Each value increments the HSCORE which is initially set to 0.

Value	HSCORE Increment
Exposure Type	
Internal	2

Customer Facing	5
Mixed	6
Application Type	
Call Center	4
Back Office	2
Pure Engine	3
Self Service	Refer to Specialist
Peak Users	
<100	1
100-300	2
301-500	4
501+	8
Key Feature	
Mission Critical	1
24/7/365	2
Complex User Interface	2
Complex Interfaces	4
Complex Computations	3
Large Objects	5

If any rule is set to “Refer to Specialist”, the logic immediately ends and the “Refer to Specialist” process begins.

Once the HSCORE is calculated, the following logic is used to determine which package is appropriate:

HSCORE < 13 = Package 1

HSCORE 13-20 = Package 2

HSCORE 21-25 = Package 3

HSCORE > 25 = Refer to specialist

Confirm Hardware

The initiator is presented with the hardware as determined by the engine. From here they can:

■ Send it for fulfilment

■ Cancel request

■ Return to the “Gather Data” step to update the request data and resubmit to the rules engine

Refer To Specialist

Work is sent to the “SpecialistWB” (Workbasket). An IT Specialist reviews the request and manually sets the hardware package. The item is then routed back to the Initiator at the ‘confirm hardware’ step.

Risk Mitigation Process

Before any request is sent to fulfillment a risk mitigation process occurs to identify and process requests that are deemed risky. The details of the RMP (Risk Mitigation Process) can be found in a latter section of this document. A request that meets ANY of the following is required to go through the RMP:

HSCORE > 22

UserCount > 800

Customer Facing && Call Center

This logic should be easily maintained by the IT Manager. A short description of the reason why the request was sent to the RMP should be set and displayed during the RMP. Any request that does not require the RMP can skip the process and proceed to fulfillment.

Send for Fulfillment

Work is sent to the Fulfillment workbasket. This work is then processed by the Fulfillment team using “Get Next Work”. The actual fulfillment process is manual and consists of a single screen that should be completed by the Fulfillment user when the order has been sent. The Request status is set to Resolved-Fulfilled.

Get Next Work

Items should be pulled from the Fulfillment workbasket in the following order:

■ Any item marked as rushed and more than 5 minutes1 old.

■ Any item marked as standard and more than 10 minutes old.

■ Any item marked as rushed.

■ All other items

Risk Mitigation Process

A request that has been flagged for the Risk Mitigation Process (RMP) will go through the following process:

■ Assignments are routed to all members of the RiskMitigationTeam work group (for testing purposes please include at least two such operators).

■ The assignment should allow the user to:

Halt the process and add a note.

Add a note but allow the process to continue.

■ The existing process continues under the following conditions:

All members of the RiskMitigationTeam workgroup have commented and allowed the process to continue.

OR – 24 hrs have passed and no member of the RiskMitigationTeam has halted the process.

■ The existing process is halted if any member of the workgroup chooses to halt the process.

Upon halting the process the originator of the request is sent a notification assignment making them aware of the reason for the halt.

Additional notes regarding the Risk Mitigation Process:

This process should be made generic and reusable so that it can be used for other risk controls throughout the enterprise.

The screens should display all relevant data about the request.

Invoicing Batch Process

Once a night at 2 A.M. the system is responsible for inserting rows into a backend accounting database. The process should get a count of all requests with the status Resolved-Fulfillment for each hardware package for the previous day (based on the resolution date). For each hardware package fulfilled in the previous day a row should be inserted into the invoice table. You can assume that each Request has only one package selected. The invoice table has the following columns:

IID – Invoice Item ID

PackageID – The package ID.

Quantity – Quantity of that package for the given day.

Date – The date of fulfillment

Note: In the future these records will be written to an external database, however for this phase the entries can be added to a data table. The IID can be generated in any way you see fit.

Reports

All of the reports can be run only by the IT Manager. Reports should be seamlessly integrated into the manager's portal.

Required Reports

Provide a report that shows the number of hardware sizing requests that have been resolved over the past week.

List the number of each package that has completed fulfilment over a user-specified date range. From this list, the user can click on any package and see a list of Requests that contained this package. Clicking a row of this "Request List" will open the request in "view only" mode.