Decision Analysis and Resolution Procedure

Revision History:

Version	Date	Prepared by / Modified by	Significant Changes	Approved By	Approved On
1.0	3-May-2017	Steve Sommers Rakesh Solleti	First Draft Made	Anitha T G	18-May-2017

1.0 Purpose:

- To analyze possible decisions through a formal evaluation process for effective decisions. The activities involve identify the alternatives, evaluate identified alternatives and select the most appropriate solution.

2.0 Scope:

- This process is applicable for the projects that are executed in ePathUSA. This is process is applicable for the departments/functions also other than projects.

3.0 Entry and Inputs

- **Entry Criteria:** This process is initiated whenever there is a critical decision is being taken and requires a formal evaluation approach.
- **Inputs:**
  - Contract
  - Statement of Work
  - Project Management Plan
  - Product Backlog

4.0 Activities:

4.1 Identify the Criteria to apply DAR

- Project might take lots of decisions throughout the project but every decision may not require a formal Dar approach. The DAR is initiated for only critical decisions; criticality depends on the type of decision and its impact on the customer or project objectives.
- Structured decision analysis can be planned typically for taking decisions on issues like
  - Use of re-usable components
  - COTS products
  - Tool selection
  - Technology selection
  - Decision that impacts the project objectives significantly like schedule, effort, performance or Quality
- Scrum Master has to update the project management plan with the criteria to use formal DAR process
- Also identify the approval authority who agrees the selected decision and gets the approval as required

4.2 Identify the Alternatives

- The team has to come out with the alternatives to be considered for the decision being made.
- The alternatives can be identified from different sources
  - Internet Search
  - References from the SMEs
  - Marketing teams
  - Team experience
  - Recommendation from other projects
  - Past experiences of the projects
- Identified alternatives to be documented in the DAR report with the source from where the alternative is identified from for future use.

4.3 Define the Criteria and Method

- The team had to come out with the criteria used for evaluating the alternatives.
- Criteria for evaluation will change depending on the type of decision being made, but there are few common criteria that is applicable for most of the decisions as below
  - Cost
  - Ease of implementation / Use

- o Meeting the Requirements
- o Future Customizations / Usage
- o Quality
- o Security / Legal Compliance if any
- The criteria cannot be made generic as it depends on the type of decision, the team has to brainstorm and come out with the criteria for the decision
- Identified decision criteria has to be updated into the DAR report
- Each criterion may not have the same importance on the decision, so the scrum master has to come out with the weightage for each criteria based on the importance on a scale of 1 to 5 where 5 being High importance 1 being Very low importance.
- The team also had come out with the method used to evaluate the alternatives, but in the organization we will have one method i.e., weighted sum scoring method for all the decision which is easy and useful for most of the decisions.
- Anything specific to the project required they can consider it as a tailoring and take help from the OPG group to use the appropriate technique for the decision.

4.4 Evaluate the Alternatives

- As identified above the team will sit and evaluate the alternatives using the defined criteria and method.
- Each alternative will be given a rating on a scale of 1 to 5 for each of the criteria
- Weighted sum is calculated as for each alternative as below
    - o Sum of (Each criteria weightage * Score)
- The alternative that gets the highest score will be considered as the best alternative.

4.5 Select the Best Solution

- The selected solution will be documented in the DAR report.
- The solution with the highest score will be considered as the best solution.
- In few cases where the difference between the scores of alternatives is very low then the team can decide the best alternatives with justification
- Any challenges / risks associated with the selected solution will be updated and tracked in the risk management plan
- The DAR report has to be shared with the decision maker for his approval
- Once approved the team can go ahead with the selected decision and plan tasks for implementation of the decision as and when required.

5.0 Exit Criteria and Outputs:

Exit Criteria: An exit criterion for this process is when the Decision is done and the DAR report is approved by the decision authority.

Outputs:
- DAR Report
- Approval from the Authority
- Risks updated in the Risk Management Plan
- Minute of Meeting

6.0 References

- Templates
    - o Minutes of Meeting
    - o Project Plan
    - o DAR Report
    - o Project Management Plan
- Guidelines
    - o Decision Analysis Guidelines
- Procedure
    - o Sprint Development Procedure
    - o Project Planning Procedure