Process Maturity Assessments – Where do you start?

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Executive Summary

Process maturity assessments receive a lot of attention these days, but where do you start to determine process maturity? Is process maturity just another number with no value? There are multiple options available to determine maturity. What is the best option? The goal of this paper is to provide information on ways to measure maturity, comparison criteria, the benefits for completing assessments, and a case study demonstrating one approach.
Introduction

Process maturity assessments have been completed for a number of years within companies either by internal resources or outside consultants. Organizations want to answer the question, where do you start to determine process maturity? Where do you begin and how do you determine validity of the results obtained? Is there value in continuing to fund process improvements and increasing process maturity? What outcomes will determining process maturity serve? Is there an ROI for such work? This paper will address these questions and more based on research and experiences performing process maturity assessments.

Where to begin?

A good beginning is to define what we mean by maturity. Various perspectives exist from multiple sources. According to Dictionary.com, maturity is “full development; perfected condition: maturity of judgment; to bring a plan to maturity.”\(^1\) When applied to process, process maturity is defined as “An indication of how close a developing process is to being complete and capable of continuous improvement through quantitative measure and feedback.”\(^2\) These definitions relate directly to the purpose of process assessments, identifying current process maturity and gaps that need to be addressed to increase maturity.

What options are available?

There are multiple options available for completing process assessments and determining process maturity. Any of these options are viable and usage is dependent on what you are trying to achieve. These options include utilizing outside consultants to conduct assessments, developing internal means for assessing with reference to a best practice framework, utilizing available assessment forms from a vendor or external resource, utilizing software tools, or any combination of the above. Each of these options has their pros and cons and what you use will be determined by your requirements and the outcomes you want to achieve.

If your requirements include establishing a baseline for an initial implementation of best practice, ITIL\(^3\) (IT Infrastructure Library\(^3\)) or another framework, then a consultant may be the best option. Consultants bring their experience and knowledge to identify maturity levels and gaps. If you already have processes established and need a fresh view or new baseline for process maturity, utilizing assessment forms from an external resource or a software tool may meet the need. Cost and time to complete and deliverables should be considerations.

Another option is the Tudor IT Process Assessment (TIPA\(^4\)), which uses ITIL and ISO/IEC 15504\(^5\) Information Technology Process Assessment standard to determine results. This tool

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2 http://www.selectbs.com/process-maturity/what-is-process-maturity
3 ITIL® is a Registered Trade Mark of AXELOS Limited
4 TIPA® is a Registered Trade Mark of CRP Henri Tudor, http://www.tipaonline.org/
5 ISO/IEC 15504 is owned by International Standards Organization (ISO) and the International Electro technical Commission (IEC)
must initially be used by an ITIL Expert and TIPA trained consultant. After the initial assessment is completed, a TIPA assessment can be completed internally by a company with certified resources for a repeatable, standard assessment.

Several software tools are also available for process assessment, including Navvia and Service Improvement Manager. Each tool determines maturity against ITIL and ISO 15504, and can be used by a consultant or by an experienced internal resource. Both of these software options provide repeatable, standard assessments.

**What is the best choice for a maturity model?**

One key criterion when making a choice will be the maturity model against which your processes will be measured. Common maturity models include the Capability Model Maturity Integration (CMMI®) and ISO 15504. Both of these models identify five levels for measuring maturity; however, the level of rigor applied differs. CMMI allows parts of the process being assessed to have different levels of maturity; whereas, ISO 15504 requires meeting all requirements at a level ‘Largely’ or ‘Fully’ before advancing to the next level. The choice for maturity model is yours to make; just be sure to justify with management as they may well have a preference.

**Case Study**

Beginning in 2006, an assessment of all Medtronic ITIL v2 processes was completed by an external consultant. This assessment provided baseline process maturity levels. Assessment outcomes were determined by reviewing internal documentation, multiple interviews with key stakeholders and a review of existing tools and metrics. For several years after this assessment, we utilized the assessment options provided by the Office of Government Commerce (OGC) for internally assessing ITIL v2 processes. Results from these simple yes/no responses assessments generated process maturity levels and assessments were completed annually.

While the OGC assessments generated information about each process, they did not clearly identify improvements that provided value. In addition, if a process owner did identify improvements from the information, there was no means for tracking and aligning improvements in an improvement plan. Unless the process owner took steps to complete improvements, it was stalemate. Another drawback was the inability to fine tune the response. Thus, depending on the process, participants generally saw only ‘rosy’ results.

With the release of ITIL v3, tools to complete assessments were for the most part non-existent. We were able to utilize our Infrastructure Corporate Executive Board (IEC) membership which provided us with access to ITIL v3 process assessment tools. However, assessment questionnaires for all processes in ITIL v3 were not available. Furthermore, we lost the option to

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6 CMMI® is registered in the U.S. Patent and Trademark Office by Carnegie Mellon University. For further information see the CMMI Institute, [http://cmmiinstitute.com/](http://cmmiinstitute.com/)

7 Office of Government Commerce in the Cabinet Office of the Government, UK, owner of ITIL at the time
continue measuring maturity for processes we had accessed with the OGC tool. The IEC tools provided questions that included a range of values to select from based on CMMI maturity ratings and included questions covering individual process activities. Yet, there were variances in the process questionnaires around question structure, question clarity, and few questions that addressed cross-process relationships. In addition, we continued to have processes that were rated on the high end of maturity and there was no means to track or manage improvements.

After using the IEC questionnaires for several years, it was determined that there had to be a better method for process assessment. The goals were to identify a means to assess all ITIL 2011 processes, generate and track improvements and provide a repeatable and standard process for assessments. In the fall of 2012, research into options began. Alternatives included continuing with IEC questionnaires and building a means for tracking improvements, utilizing outside consultants, developing internal assessment questions, using TIPA in conjunction with a consultant, or using a software solution. The first three options were dismissed as either not providing the necessary outcomes or too costly.

TIPA which was released in 2012\(^8\) provided a clearly defined set of questions based on ITIL and ISO 15504. A full process assessment required a consultant, as the initial assessment per ITIL requires a trained TIPA consultant. An internal resource could assist until they had completed the appropriate certification. Upon certification, templates and other tools were made available. Time to complete one process assessment was about one month and results provided the outcomes we sought. With one month for completion, however, we potentially saw a 6-month timeline to complete all of the process assessments we needed. One plus for the use of TIPA was that the questions were clearly related to the ITIL 2011 processes and ratings were aligned with ISO 15504. These assessments provided maturity values from a CMMI rating perspective and a Capability rating that correlated with ISO 15504 rating scale.

Two process assessment software tools were investigated. One tool used question sets for each process based on best practice and experience and ISO 15504 ratings, while the other tool used question sets based on ITIL 2011 or ISO/IEC 20000\(^9\) plus ISO 15504. Each tool was fully tested and comparisons were made for usability and cost, and benefits were measured against the outcomes we wanted to achieve. Comparisons, where applicable, were made among consultant costs for a full assessment, license costs, type and number of users, assessment tools/templates, training and references.

Research results and a recommendation were presented to management. We were given the go ahead to pilot the recommended software with several critical processes. During the pilot, interviews were completed with process owners and process users, data entered into the

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\(^9\) ISO/IEC 20000 is owned by International Standards Organization (ISO) and the International Electro technical Commission (IEC).
software, and information generated provided to the process owners. Process owners were then able to determine from a list of system generated improvement opportunities what improvements would benefit the process and provide business value. Improvement tasks, costs and benefits were tracked in the software along with tracking of identified risks for the improvement effort. Risks had never been called out with any previous assessments other than as potential issues that might be faced and without a full risk definition. The addition of risks provided a balanced view for the improvement effort.

Based on the results of the pilot it was determined that the tool was of value and met the outcomes we wanted to achieve. The tool provided three values for process maturity, Maturity (CMMI rating\(^\text{10}\)), Capability (ISO 15504 rating\(^\text{11}\)), and Competency (percentage against ISO 20000\(^\text{12}\)). After further investigation into ISO 15504 and determining that it was more specific and evaluated against areas of specialization in determining the level of maturity, it was agreed that the best value to track was Capability. In addition, Capability was measured by the attributes associated with each of the five levels. A recommendation was presented to management along with supporting information that Capability was the measure to use. Management agreed with the recommendation. Target goals for Capability improvement were set based on the improvement tasks generated by the software.

An additional learning after the initial pilot was the need to view multiple process assessments from a ‘cross-process’ view. Improvements could be selectively completed with a focus on what improves the process and more particularly what improves the whole of the service management framework of processes. One item we had not foreseen was how follow-up would be completed by process owners. Although they owned the improvement tasks, there needed to be a focused effort to continue to work the tasks with support from management.

Since that pilot, we have expanded assessments to include five additional processes with five other processes scheduled for assessment in the near future. We have also completed a reassessment of the two processes included in the pilot. The reassessment was completed after 6-months in order to determine their short-term progress. Going forward, the plan is to complete a 6-month check for each process after the baseline is measured and then shifting to an annual reassessment.

Process owners were challenged to select improvements from a list of opportunities generated by the software. They either saw the whole picture and relationship of the tasks or they viewed tasks as individual items with no interrelationship. Assisting process owners with the improvement selection was a challenge we met by meeting and discussing an approach for task selection. We were able to identify cross-process relationship tasks that removed the silo mentality and

\(^{10}\) CMMI rating provides 5 levels, Initial, Repeatable, Defined, Managed, Optimized.
\(^{11}\) ISO 15504 rating provides 5 levels, Performed, managed, Established, Predictable, Optimizing. Each level must be completed prior to moving to the next level.
\(^{12}\) ISO 20000 value provides the percentage of compliance to the standard.
provided a view into the value of the whole. In addition, we reinforced the role of the process owner as separate from the operational day-to-day process work.

Positive results from these assessments included the ability for the process owner to track and assign tasks, as software licenses allowed. Results can be measured with notation on work completed added to each task and a dashboard displays progress throughout the project’s life. Reports can be generated at any point in the lifecycle of the project with a final report available when work has been completed. These can be provided to management to show status of the efforts underway.

Overall, an internal assessment process was developed that provides repeatability and consistency for assessments with this software. The process includes identification of who will manage the assessments, interview technique that will be used, interviewee selection, reviewing and sharing of results, and communication of project status. While it is feasible to utilize a TIPA assessment as a starting point, leveraging only the software provides the same or additional value. We chose to use only the software and it has more than met our needs.

**Recommendations**

There are several recommendations based on the work that we have completed. Determine what you want to achieve from the assessments, what are the goals and outcomes desired. Review your options and obtain management buy in for the recommendation you make. Consider time and effort to complete assessments along with any costs. Do not expect this to be a trivial add on effort for a staff resource; there needs to be a knowledgeable resource in best practice who is skilled at interviewing and working with process owners to achieve their goals.

Consider who will be handling the assessments. If this is an internal resource, an individual with ITIL Expert certification is recommended; otherwise, ensure the consultant is appropriately trained. Who will be interviewed? We recommend interviewing 4-7 individuals per process, including the process owner and process users. More interviews are possible; however, determine first if they will add value. Individual versus small group interviews are recommended as there is less likelihood of one individual swaying other’s responses. Consider what will work in your company’s culture and what in the long run will best serve the processes.

Be reasonable in selecting improvements to move forward. The proverbial ‘boil the ocean’ context comes to mind. Be selective and select improvements that provide business value and support other IT initiatives. Creativity really helps when explaining that what may appear as unrelated tasks are really part of a bigger whole.

**Benefit 1 – Tracking Improvements**

Assessments provided a new and consistently measured baseline with established improvements generated which could be tracked. Management knew what process owners were working on.
Benefit 2 – Cross-Process Relationships
Assessments increased process cross-relationship knowledge and understanding. Specific improvements were identified that a process needed to work on to achieve improved maturity for their process and the related process(es).

Benefit 3 – Track ROI
Assessment software provided the ability to identify and track return on investment for specific process goals.

Summary
Maturity assessments are one piece of the puzzle to improve process and increase the value of IT for the Business. They are an excellent starting point that will focus process owners on continual improvement. Support from management is essential for investing time and resources to complete the improvements. Each company must determine their own path to improve and mature their processes. All key stakeholders must be engaged to complete the work; improvement is not the sole responsibility of a process owner. A collaborative and collective effort is needed between users and those accountable for process improvement.

Conclusions
This paper has discussed process maturity assessments, where to begin, what the options are and what the best choice for measurement is. A case study was presented that detailed our journey for determining process maturity from ITIL v2 to ITIL v3 to ITIL 2011. Finally, recommendations and benefits were provided to assist others in their journey. While process maturity can be a topic treated lightly by some organizations, it is worthwhile identifying where your organization is with respect to maturity. Having this information provides a baseline and future targets for improvement.
About the Author

Jeanette is an Information Systems professional with over 35 years management, education and consulting experience in a variety of organizations ranging from small colleges to Fortune 500 corporations with expertise in areas of end user support, training, process development, technical documentation, and implementation of new processes. She is currently Service Level Management, Event Management and Service Reporting process owner and Service Design process group lead for the Medtronic Global IT Service Management Program.

Jeanette is Secretary of the itSMF MN LIG. She holds ITIL Expert, COBIT®\textsuperscript{13} Foundations, and ISO 20000 Consultant/Manager certifications. She has Master’s degrees in History, Secondary Education, and Computer Science and has completed Doctoral level work in Mathematics Education.

Jeanette has presented at the 2004 itSMF USA, 2002 and 2005 HDI Conferences, Minnesota LIG March 2010 on IT Metrics and Dashboards and September 2010 on Implementing Enterprise Service Management, March 2011 follow-up on IT Metrics and Dashboards, October 2011 itSMF USA Fusion11 Overview, and October 2013 on Process Maturity. Other presentations have been made at MN LIG roundtables, numerous small and large seminars on a variety of topics. In 2011, she participated as a presenter in a local training company’s IT Leadership Program. In 2012, her paper on Operational Level Agreements was included in Cold Fusion 12 eBook.

Jeanette was named itSMF USA Central Region Volunteer of the Year for 2013 and itSMF USA Member of the Year for 2013.

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