

Roadmap to process maturity

Abstract

The major issues when talking or dealing with an IT industry is the delivery on planned time and within the planned budget. Moreover, the ever increasing need of the business world magnifies these problems even more. Hence, there is a need to overcome these evergreen problems for which the Capability Maturity Model is a solution. This white paper describes the problems linked with issues that IT industry usually faces and the solutions to them using CMMi.

Introduction

The mounting business needs and the poor response methods of the IT industry is the major problem that most of the IT industries are facing today. It needs to be realized that the business needs are going to be ever changing and the IT industry need to cope up with these demands on a day-to-day basis as its never the same thing every time.

Standing up to the mark!

One man's loss is another man's gain. This is the thumb rule in the business world today. There is cut throat competition which is faced by most of the IT industries worldwide. On time and error free deliverables is the need of the hour. Quality cannot be compromised for timely delivery. All we require to do is to make sure that we are:

- Using the correct approach
- Applying the right strategy
- Upgrade their processes as per the current needs
- Improve quality

But again the questions like below arise –

- How do we know that the steps we are taking are actually helping to achieve the above requirements and bridge the gap for achieving superior quality?
- How do we make sure that we are walking towards the goal and not away from it?
- Are we doing enough?

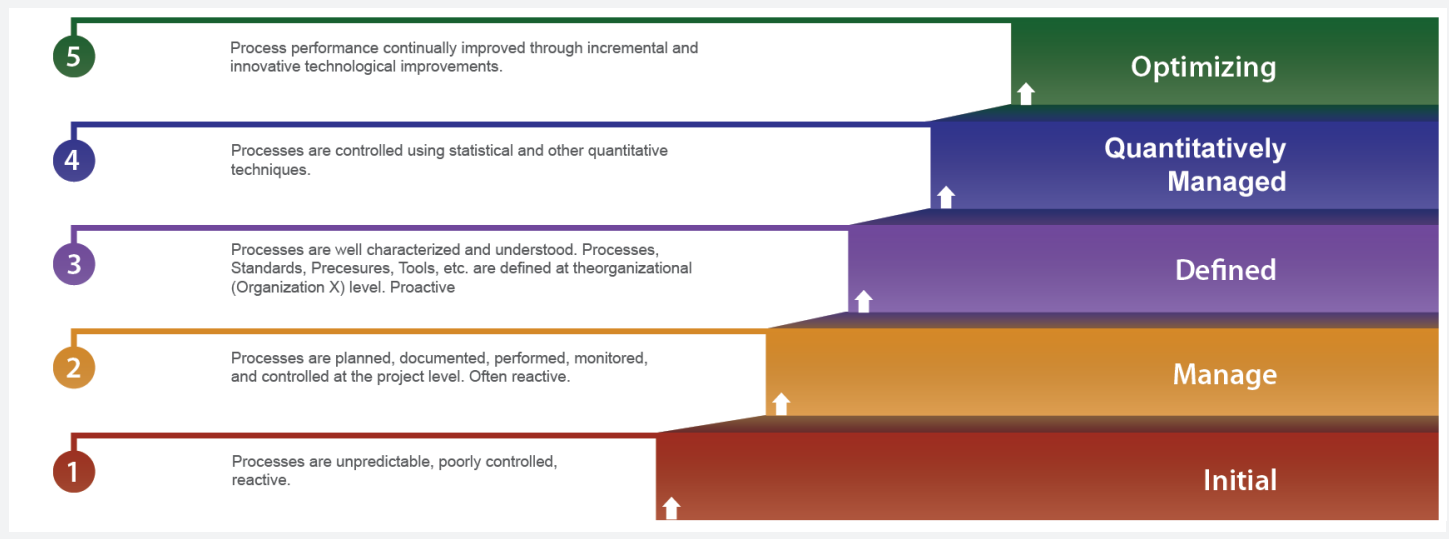
Working towards process maturity

Due to the high demand of quality output the organizations have started to make a check on their processes and quantify their outputs. This in turn leads to understand better the processes and upgrade them as per the needs of the business world. This is where the role of

CMMi comes into play. CMMi is a trademark owned by Software Engineering Institute (SEI) of Carnegie Mellon University. The purpose is to help organization to improve the development and maintenance processes for both products and services.

CMMi structure

CMMi, staged, uses 5 levels to describe the maturity of the organization.



Understanding the five levels

Level 1- Initial

Processes are unpredictable, poorly controlled and reactive. The process performance may not be stable and

may not meet specific objectives such as quality, cost, and schedule, but useful work can be done.

Level 2- Managed

The managed process comes closer to achieving the specific objectives such as quality, cost, and schedule.

A managed process is a performed process that is also:

- Planned and executed in accordance with policy
- Employs skilled people

- Adequate resources are available
- Controlled outputs are produced
- Stakeholders are involved
- The process is reviewed and evaluated for adherence to requirements

Roadmap to process maturity

Level 3- Defined

Processes, standards, procedures, tools, etc. are defined at the organizational level. Project or local tailoring is allowed, however it must be based on the organization's

set of standard processes and defined per the organization's tailoring guidelines.

Major portions of the organization cannot "opt out."

Level 4- Quantitatively Managed

At this level although the processes may produce predictable results, the results may be insufficient to achieve

the established objectives

Level 5- Optimizing

- Maturity level 5 focuses continually on improving process performance through incremental and innovative process and technological improvements.
- An organization continually improves its processes based on the quantitative understanding of the common causes of variation inherent in the processes.
- The effects of deployed process improvements are

measured and evaluated against the quantitative process improvement objectives.

- At maturity level 5 the organization is concerned with addressing common causes of process variation and changing the process to improve process performance and to achieve the established quantitative process improvement objectives.

Components of CMMi

- Within each of the 5 Maturity Levels, there are basic functions that need to be performed – these are called Process Areas (PAs).
- For Maturity Level 2 there are 7 Process Areas that must be completely satisfied.
- For Maturity Level 3 there are 11 Process Areas that must be completely satisfied.

- Given the interactions and overlap, it becomes more efficient to work the Maturity Level 2 and 3 issues concurrently.
- Within each PA there are Goals to be achieved and within each Goal there are Practices, work products, etc. to be followed that will support each of the Goals.

Benefits from CMMi

- Improved schedule and budget predictability
- Improved cycle time
- Increased productivity
- Improved quality (as measured by defects)

- Increased customer satisfaction
- Improved employee morale
- Increased return on investment
- Decreased cost of quality

The myths involved

- Though CMMi is useful for process improvement but it has a lot of misconceptions associated with it. It should be understood that CMMi is not the answer to all the questions and we need to understand the myths involved with the whole concept of CMMi.
- **Everyone should have the knowledge of each process:** Out of all the processes that are being followed in an organization it is not necessary that everyone should be involved in all the processes which are not relevant to their area/ scope of work. Involving an individual in all the processes will only create confusion and dissolve the boundaries of the different working areas.
- **CMMi processes are too difficult and complex:** The reason behind this is because it is thought that CMMi sets processes, whereas, CMMi only helps in updating the processes which are already adapted by the organization as per the current needs. It gives provisions so that the organization itself can measure the capability of its processes.
- **CMMi processes are only for big organizations:** Even though initially it was only the larger organizations who had adopted to the CMMi models in address their complex issues but there is no stringent line drawn which can keep the small organizations from taking the advantages of these models.
- **One needs to invest too much of time behind them:** All the time that one needs to invest is to map the organization's processes with the requirements of the process areas of CMMi. The more there is a scope of improvement the more time consuming the whole exercise would be. However, the benefits out of it like the decreased turnaround time, increased return on investment, the decreased cost to quality balances the whole thing.
- **The top level management has nothing to do with the processes:** The senior management has the greatest responsibilities when adopting to the

CMMi practices. They are the ones who would be streamlining the whole change and hence their involvement is the most crucial one.

The other myths involved on CMMi are:

- It cannot be used if an organization is already using another process improvement model
- Everyone needs to be trained on each process
- The baseline documents have no use
- Need to measure each and every process area

Just like every coin has two sides to it similarly there are the pros and cons of adapting to the CMMi model. Hence it is important to know every aspect of CMMi before applying it at the organization level.

When Silver Touch engages itself with any client for developing their applications based on their required specifications, Silver Touch makes sure that they take an approach which will perfectly compliment the requirements of the CMMi model. At the same time care is taken to improve on the quality and satisfy the acceptance criteria of the client with on time delivery. The root cause analysis is done to find out the reasons behind the issues prevailing at the organization level and find solutions for resolving them. The learning from the various improvement exercises is maintained for future reference. The activities for quantifying the work outputs are carried out which helps in revising the organization goals if needed. Hence, various software engineering process groups are devised for doing the activities as mentioned above. These process and quality improvement activities benefits not only our organization but also the customers working with us.

Conclusion

At the end of the day we should be in a position to handle the change that is brought about by the CMMi model. To move ahead we first need to understand where we stand and then progress further. Silver Touch's whole experience of adapting the practices applicable for CMMi level 5 has been beneficial and we believe that adapting

to the CMMi practices has not only helped in improving quality output, reduce cost to quality and increase return to investment but has also immensely increased the client satisfaction. This in turn has helped us to gain better client trust and customer delight.

Deliver best products, software solutions and services, on time with quality, and as per customer expectations

About SilverTouch

SilverTouch, a company established in 1992 is widely accepted for its IT solutions with a huge customer base in more than 20 countries across the world.

SilverTouch is actively engaged in Enterprise software development, enterprise content management, document management and IT consulting services such as Business process optimization, process consulting, implementation and customization of ERP. SilverTouch leads brilliantly in new technical developments such as: Mobile Application development services on iPhone, iPad, Blackberry, Android, J2ME and Windows mobile platforms. Even now, SilverTouch helps its global clients for major developments, deployments and managements of their mobility solutions and enterprise application development programs.

SilverTouch has alliance with several industry leaders such as Microsoft, Apple, Cisco, IBM, Oracle, SAP, Java, Dell, VM ware, Symantec, Sonic Wall which provides a competitive edge over other industry peers and targets to understand and cater to all types of requirements that concern our clients, thereby, leading to serve them precisely to their satisfaction.

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