

### CISDI Information Technology Co., Ltd.

January 10, 2019

Dear Raghav Nandyal,

Our company has always attached great importance to the construction and promotion of the CMMI maturity capability model, which is an essential part of our company's core competitiveness building and external brand image.

Raghav Nandyal is a CMMI Certified High Maturity Lead Appraiser. Based on international standards, professional requirements, and advanced evaluation methods, Raghav Nandyal has organized detailed analysis and problem finding for each process group of the company, and also gave great suggestions for improvement. In particular, it is recommended that our company further establishes a sound and reasonable closed-loop mechanism of "evaluation, feedback, and improvement" based on the quantitative model of indicators, which has far-reaching significance for the sustainable development of our company.

Specific improvements are as follows:

- 1. The customer cares more about the quality of the code. If the code is not good, a perfect process even means nothing.
- 2. It is recommended to do an in-depth analysis of the root causes of CAR. If this is not done, the benefits brought by CMMI4 will not last long and the problem will not be solved.
- 3, The EPG members should improve the frequency of meeting with the project team, timely collect suggestions for process improvement, feedback, and promote organizational process improvement.
- 4. The metric data of the project exists in multiple documents. It is recommended to optimize the integration and combing of information to improve usability.
- 5. The project team should fully consider submitting public and reusable components to enrich the organization's wealth base, which is one of the benefits of high maturity.
- 6. At present, the data collected by the project and the amount of input work are too much. It is recommended to set the data items according to the strategic needs of the organization, and only collect the necessary data to improve work efficiency.

Here, I would like to express my deep gratitude for your hard work and knowledge instruction!

Sincerely,

Liu Ming 刘明

CEO 执行总裁(Sponsor)



10/ . 2019

### 中冶赛迪重庆信息技术有限公司

### CMMI4 复审评估总结

#### 1. 本次评估的收获

通过本次由 CMMI 认证高成熟度主任评估师 Raghav Nandyal 主持的评估,深入理解了 CMMI4 模型的意义,获得了很好的改进建议和方法。针对于不同的行业,不同的业务,使用的模型和方法应当适用。所有的改进活动最终应当形成相应的制度,让公司每个人共同去遵守和维护。

以下收获的改进建议非常好:

- 1)、客户更在意代码质量,如果代码不够完美,过程做得再好也没有意义。
- 2)、建议做深入的 CAR 根本原因分析,如果做不到,目前 CMMI4 级带来的效益也不会长久,问题得不到根本解决
- 3)、EPG 要提高与项目组会面的频率,及时收集过程改进的建议,反馈意见,促进组织的过程改进。
  - 4)、项目的度量数据存在多个文档中,建议优化信息的整合与梳理,提高可用性。
- 5)、项目组应充分考虑提交公用及可复用的组件,充实组织的财富库,这也是高成熟度的好处之一。
- 6)、目前项目收集的数据和投入工作量都过多,建议按组织的战略需求设置数据项,只收集必要的数据,提高工作效率。

#### 2. 将采取哪些改进措施

针对本次评估发现的一些问题,经项目经理提出,拟采取以下措施予以改进:

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- 1)、提升代码质量,加强编码方面的培训,包括工具、规范及使代码更完美的方法,修订编码规范,将每个类限制在500行内,每个类的方法不超过5个。
- 2)、为了充分明确需求,为更个项目做好更好的策划,将选择合理的需求调研方法,选择合适的方式进行预测。
- 3)、为提高软件测试能力,要保证需求一设计一测试中各个功能点能一一对应; 并选用更合适的软件测试工具。
- 4)、加强对问题根本原因的分析,然后有针对性的执行改进,需要加强对过程数据的采集;选择科学的分析方法;加强团队讨论,集思广益;对问题进行持续跟踪。
- 5)、为提高软件模块的复用度,保证代码质量和效率,准备加强设计和编码培训,丰富开发人员的知识体系;建立完善的代码编写规范的代码检查机制;将共用技术模块化,提高代码复用率。
- 6)、为使项目的预测更准确, EPG 需要针对不同类型、不同周期及规模的项目分别建立模型,以有效应用到项目中。



刘明

2019年01月09日

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### CISDI Information Technology Co., Ltd.

#### CMMI4 review evaluation summary

#### 1. The harvest of this assessment

Through the evaluation conducted by CMMI certified high maturity director appraiser Raghav Nandyal, the understanding of the meaning of the CMMI4 model was deeply understood, and good suggestions and methods for improvement were obtained. Models and methods used should be applicable to different industries and different businesses. All improvement activities should eventually form a system that allows everyone in the company to comply and maintain.

The following suggestions for improvement are very good:

- 1), the customer cares more about the quality of the code. If the code is not perfect, it doesn't make sense to do the process well.
- 2) It is recommended to do an in-depth analysis of the root causes of CAR. If it is not possible, the benefits brought by CMMI4 will not last long, and the problem will not be solved.
- 3), EPG should improve the frequency of meeting with the project team, timely collect suggestions for process improvement, feedback, and promote organizational process improvement.
- 4) The metric data of the project exists in multiple documents. It is recommended to optimize the integration and combing of information to improve usability.
- 5) The project team should fully consider submitting public and reusable components to enrich the organization's wealth base, which is one of the benefits of high maturity.
- 6) At present, the data collected by the project and the amount of input work are too much. It is recommended to set the data items according to the strategic needs of the organization, and only collect the necessary data to improve work efficiency.

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2. What improvements will be taken?

In response to some of the problems identified in this assessment, the project manager proposed to take the following measures to improve:

- 1) Improve code quality, strengthen coding training, including tools, specifications, and methods to make the code more perfect; Revise the coding specification, limit each class to 500 lines, and no more than 5 methods per class.
- 2) In order to fully define the needs and make better planning for a better project, we will select a reasonable demand research method and choose the appropriate method for forecasting.
- 3) In order to improve the software testing ability, it is necessary to ensure that each function point in the demand-design-test can be one-to-one; and select a more suitable software testing tool.
- 4) Strengthen the analysis of the root cause of the problem, and then implement the improvement in a targeted manner. It is necessary to strengthen the collection of process data; select scientific analysis methods; strengthen team discussions, brainstorm ideas; and keep track of problems.
- 5) In order to improve the reusability of software modules, ensure code quality and efficiency, prepare to strengthen design and coding training, enrich the knowledge system of developers; establish a code review mechanism for code writing specifications; modularize sharing technologies and improve Code reuse rate.
- 6) In order to make the project's prediction more accurate, EPG needs to establish separate models for different types, different cycles and scales to effectively apply to the project.

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Liu Ming

January 09, 2019

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## 中冶赛迪重庆信息技术有限公司

2019年1月10日

尊敬的 Raghav Nandyal:

公司一直很重视 CMMI 成熟度能力模型的建设和推广应用,将其作为公司核心竞争力建设和对外品牌形象塑造的重要内容。

Raghav Nandyal 是 CMMI 认证高成熟度主任评估师,以国际化的水准、专业化的要求、先进的评估方法,组织对公司各个过程组进行了详细的分析和问题发现,并给出了改进建议。尤其在建议公司进一步建立完善科学合理的基于指标量化模型的"评价、反馈、改进、提升"闭环机制方面,对公司可持续发展具有深远意义。

#### 具体的改进建议如下:

- 1、客户更在意代码质量,如果代码不够完美,过程做得再好也没有意义。
- 2、建议做深入的 CAR 根本原因分析,如果做不到,目前 CMMI4 级带来的效益也不会长久,问题得不到根本解决。
- 3、EPG 成员要提高与项目组会面的频率,及时收集过程改进的建议,反馈意见,促进组织的过程改进。
  - 4、项目的度量数据存在多个文档中,建议优化信息的整合与梳理,提高可用性。
- 5、项目组应充分考虑提交公用及可复用的组件,充实组织的财富库,这也是高成熟度的好处之一。
- 6、目前项目收集的数据和投入工作量都过多,建议按组织的战略需求设置数据项,只收 集必要的数据,提高工作效率。

以上工作体现了 Raghav Nandyal 评估师较高的专业水平、很强的责任心和丰富的领域经验。

在此,对您所做的工作以及辛勤的付出,表示深深的感谢!

刘明 Liu Ming 执行总裁 CEO (Sponsor)



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