

2017年8月24日至2017年8月31日，Raghav Nandyal老师和ATM小组对内蒙古科电数据服务有限公司（以下简称：科电数据）进行了CMMI 5级的正式评估。在Raghav Nandyal老师、ATM组以及项目组成员的共同努力下，我们不仅学习到了很多项目管理理念，更重要的是创新了工作方法和思维方式，并且在评估的过程中发现了项目的改进项，即我们在CMMI5实施过程中存在的问题，Raghav Nandyal老师和ATM小组给出了很多改进建议，总结如下：

1. 在后续工作中持续优化预测模型，在模型的选择和应用方面，我们将在数据收集预测范围内纳入更多的可控因子，提升预测模型的准确性。
2. 优化已使用的可控因子，结合使用COCOMO模型等功能点估算方法，持续改进项目估算的流程，提高项目估算的准确率。
3. 组织要有庞大的历史项目数据，包括缺陷、规模、成本、工作量、进度、同行评审等，能够便于从多个纬度收集数据并进行相关性分析，为建立基线和模型奠定基础。
4. 公司将使用CMMI服务模型来管理项目中的商务服务工作，如：增加供应商管理、增加采购管理、加强人员储备。
5. 在后续的过程管理中，我们将以追求项目“零缺陷”为终极目标，明确需求、合理设计、准确开发、严格测试。实现成本可控、进度可控、质量最优的原则，整体提升客户满意度。
6. 依据本次评估中提出的改进建议，公司将对体系文件中不明确、不准确的部分进行修订，不断完善过程管理体系。
7. 公司将加强项目的过程检查，优化过程检查项并汇总分析。
8. 在项目管理工作中，应多使用效益、成本、分析工具，多进行原因分析，制定方案，进行改进，提升项目质量、提高工作效率。
9. 对于人员备份的建议，我们准备通过公司的员工技能矩阵，制定关键岗位人员的备份机制，降低项目风险。
10. 对于目前公司使用的自动化测试工具，后续还需增强数据方面的收集、持续改进测试流程、完善手工测试与自动化测试的结合。
11. 对于项目建设过程中客户参与度不高的问题，我们后期将加强与客户的沟通，邀请客户参与项目各阶段的评审工作，与客户共同监督项目进度和质量。

内蒙古科电数据服务有限公司（简称“科电数据”），作为内蒙古自治区本地IT服务商，秉持“科技改变未来”的态度，为各行业客户提供信息化咨询、

软件设计、研发实施、运维服务、容灾建设等定制化、专业化、实用化的 IT 服务，经过 8 年的深耕和高速发展已经成为内蒙古 IT 行业的标杆企业。

公司在成立伊始就以国际标准规范及最佳实践为标准进行企业管理，并建立了企业的质量管理体系（规范项目管理、质量管理、软件研发过程管理、信息安全管理、IT 运维服务管理），严格按照 PDCA 进行持续改进，以规范和标准为准绳，为客户提供标准化、规范化、专业化的 IT 服务。

软件过程的改进是一个持续的过程，我们将按照评估组提出的改进建议，制定改进计划，逐步完善过程改进项。通过持续的过程改进实现公司的业务目标，通过量化管理实现过程的精细化控制，为公司的可持续发展奠定了稳定的基础。

感谢 Raghav Nandyal 老师和 ATM 小组这八天对我公司指导，我们将持续过程改进的工作，不断学习各种优秀的理念，不断提升公司的质量管理水平，并探索更加先进的技术，持续做出最具竞争力、最能被客户认可的高质量产品。



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From August 24, 2017 to August 31, 2017, Raghav Nandyal and the ATM team conducted a formal assessment of CMMI Level 5 for intelligence Electronic Data Services Inner Mongolian (hereinafter referred to as Intelligence). With the joint efforts of Raghav Nandyal teacher, ATM groups and members of the project team, we have not only learned a lot of project management concepts, but more importantly understood how to innovate working methods and improve ways of thinking. During the assessment process several useful improvement opportunities were suggested. The follow up process improvement plan to address issues that still remain in our implementation of CMMI5 as identified by Raghav Nandyal and the ATM team will address the following with the highest priority:

1. Continuously optimize the forecast models: in the model selection and application, we will be in the data collection forecast within the scope of more controllable factors to improve the accuracy of the forecast model.
2. Optimize the controllable factors that have been used, combined with the use of COCOMO model and other functional point estimation method, continuous improvement of the project estimation process to improve the accuracy of the project estimates.
3. The organization has a large historical project data, including defects, size, cost, workload, progress, peer review, etc., to facilitate the collection of data from multiple latitudes and correlation analysis, to lay the foundation for the establishment of the baseline and model.
4. The company will pilot the CMMI service model to manage business services in the project, such as increased supplier management, increased procurement management, and increased staffing.
5. In the follow-up process management, we will pursue the project "zero-known defect" as the ultimate goal, clear demand, rational design, accurate development, rigorous testing. To achieve cost control, schedule control, the principle of optimal quality, the overall upgrade customer satisfaction.
6. Based on the improvements proposed in this assessment, the Company will revise the undefined and inaccurate parts of the system documents and continuously improve the process management system.
7. The company will strengthen the process of project inspection, optimization process checks and summary analysis.
8. In the project management work, should use more efficiency, cost, analysis tools, and more reasons for the analysis, the development of programs, to improve, improve project quality, improve work efficiency.
9. For the staff backup proposal, we are prepared through the company's staff skills matrix, the development of critical staff of the backup mechanism to reduce project risk.

10. For the current use of the company's automated testing tools, follow-up need to enhance the data collection, continuous improvement of the testing process, improve the combination of manual testing and automated testing.
11. For the project construction process of customer participation is not high. We will strengthen the latter part of the communication with customers, invite customers to participate in the project at all stages of the assessment work, and customers to jointly monitor the progress and quality of the project.

Inner Mongolia Science and Technology Data Co., Ltd. (referred to as "Intelligence Electronic Data Services Inner Mongolia"), in the Inner Mongolia Autonomous Region is a local IT service provider, upholding the "science and technology to change the future" attitude for the industry to provide information technology consulting, software design, Service, disaster recovery construction and other customized, professional, practical IT services. After 8 years of deep experience and high-speed development, our company has become the benchmark industry in Inner Mongolia IT industry. At the beginning of the establishment of the company, we aligned ourselves to the international standards and standards of best practice of enterprise management, and the establishment of the enterprise's quality management system (standard project management, quality management, software development process management, information security management, IT operation and maintenance service management), In strict accordance with the PDCA continuous improvement to the norms and standards as the yardstick, we provide customers with standardized, standardized, professional IT services.

The improvement of the software process is an ongoing endeavor, and we will develop improvement plans and improve the process improvement step by step in accordance with the recommendations made by the assessment team. Through continuous process we will improve company's business objectives and quantitative management that we have attempted to achieve required process performance. Our process maturity appraisal has provided us the levers with which to establish fine control for the company's sustainable development by providing us with a stable foundation.

Thanks to Raghav Nandyal and the ATM team for eight days of guidance for our company! We will continue to work on the process of continuous improvement, learn from all kinds of excellent ideas, and constantly improve the company's quality management level and explore more advanced technologies. We will continue to make ourselves the most competitive and the most recognized company by providing our customers with high-quality products.



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