How to Conduct Knowledge Transfer Efficiently

Cognizant Applications Maintenance Solution Series
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Knowledge Transfer is the key to achieving a smooth transition to application outsourcing. By absorbing the client’s systems expertise, the outsourcing provider can design an application management plan based on best practices.

At Cognizant, Knowledge Transfer is part of a 90-day, structured, three-stage process for transferring application maintenance from the customer’s internal IT staff to Applications Maintenance Solution (AMS) teams. Under the Cognizant phased transition approach, knowledge transfer begins once planning for the outsourcing service is complete, accounting for up to half of the three-month process.

This is the stage where Cognizant deploys teams on-site to learn about the customer’s computing environment, the applications to be outsourced, and existing maintenance procedures. In many cases, Cognizant’s knowledge gathering often helps customers learn more about their systems.

The Process

**Technical Environment Study:** AMS teams study and document the system environment, comprising factors such as user profiles, transaction volumes, batch windows, available testbeds, security and access control procedures, maintenance practices, error resolution processes, and training requirements.

**Application Understanding:** AMS teams learn the functionality of the application(s), and prioritize applications based on the level of business-criticality to the customer. AMS teams closely analyze the system, mapping business functions to programs and data sources, generating process flows, documenting user profiles, and studying error history to identify key system problem areas. If no documentation exists, the AMS team will write it.

**Maintenance Process Study:** AMS teams learn and document the processes triggered by error reports or enhancement requests, tracking all events through the entire fix/develop life cycle, identifying all tools used, and learning the customer’s change control procedures and error classification schemes. Leveraging Cognizant’s long experience in delivering application maintenance solutions, the AMS team will then write a maintenance plan that fits the customer’s requirements.

**Offshore Transition Planning:** The final deliverable involves conducting a gap analysis to identify areas requiring future work (e.g., incomplete or missing documentation, or the need for additional tools or training), beginning the handing over of maintenance responsibilities to Cognizant’s on-site team, and the transferring of knowledge to offshore staff. At this point, Cognizant’s on-site team gradually assumes responsibility for maintenance tasks such as end user support, bug fixes, and enhancements under the customer's guidance. At the end of the transition, maintenance methodologies and operational guidelines are fully documented, and the first version of the Knowledge Repository is completed.
The Ingredients

Technology: The organization’s IT environment is completely inventoried. Because enterprise applications are complex ecosystems, all supporting platforms, related applications, tools, and databases must be documented. That includes all relevant hardware and software configurations.

Expertise: Who are the authorities on hardware and software system configurations, end user access rights? Who are the domain experts that provide the expertise on business processes? The knowledge transfer process requires that the key players who own the knowledge of the application environment be identified and interviewed to ensure that best practices reflect the client’s needs.

Training: Do any systems require specialized training? Is the training commercially available, or are homegrown systems involved that require training from internal sources?

Tools: Cognizant employs a wide range of tools as part of its AMS structured solutions. During the Knowledge Transfer phase, Cognizant uses a tool that parses legacy code to analyze application business logic and architecture.

Best Practices: Cognizant supplies experts who know how to maintain applications for a wide range of customers. Their expertise, combined with the customer’s knowledge, are used for building a maintenance strategy that synthesizes the lessons learned from Cognizant’s and the client’s experiences.

The Team

Cognizant: An on-site team is deployed to learn the client’s application and operating requirements, and then transfer that knowledge to offshore teams. The team includes an AMS engagement leader and platform and application specialists, who are backed by experienced AMS professionals at Cognizant’s offshore development centers. Cognizant teams use a variety of approaches for building their knowledge base, including interviews, discussions, side-by-side project work, and in some cases, questionnaires.

Customer: Cognizant AMS teams work with systems (technology) administrators, operations, application (domain) experts, and end users, to learn the customers system. The customer should prepare for the AMS engagement organizing a transition team, designating a leader with background in maintaining the application portfolio who is backed by system and application experts. They work alongside the Cognizant AMS team in providing key knowledge about the system. Although, at the outset of the Knowledge Transfer process, customer team may dedicate most or all of their time, as Cognizant staff grows more knowledgeable about the systems, they can reduce their time commitments dramatically.
The Results

Repository: Cognizant teams build a Knowledge Repository, the tool that provides the roadmap for the AMS solution, the offshore transition plan, and the reference point for documenting the system. The Cognizant Knowledge Repository organizes Meta data covering business processes, application functionality and workflow, the program (e.g., code and command structure), database structure, and tracks all modifications that are made to the system.

Documentation: Based on meta data from Cognizant repository, extensive discussions with system administrators and end users, and information from any existing documentation, Cognizant produces comprehensive documentation explaining how the system works, and detailing key operating parameters and configuration settings. For many customers, the result is that their systems and applications are often fully documented for the first time.
Knowledge = Competitive Edge

Cognizant’s AMS methodology has been built from years of experience, resulting in a body of best practices on how to maintain applications for corporate clients. The Knowledge Transfer process plays a crucial role in ensuring that the transition of application maintenance from internal resources to Cognizant AMS teams proceeds as smoothly as possible.

Knowledge Transfer bridges the process, from planning to ramp-up of AMS, the application maintenance solution. The process is highly structured, designed to absorb the customer knowledge, and producing an operating plan that synthesizes the customer's own application and business knowledge with Cognizant’s application maintenance expertise. The result is codified, with Meta data about every aspect of the application, platform environment, and business practices captured in a repository. Then, based on data form the repository and information gathered during the Knowledge Transfer process, Cognizant thoroughly documents the customer’s application systems.

The result is a repeatable process, which when paired with Cognizant’s world class, SEI-CMM level 5 certified processes, often results in applications running more efficiently than ever. As enterprises face the rigors of 21st century competition, having their mission-critical applications run in world-class environments becomes part of their competitive advantage.