IBM Customer

IBM FileNet Performance Optimization Package Service Description

January 1, 2013

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1. Description of Services

Enterprise Content Management (ECM) is pleased to submit this Service Description to IBM Customer (<IBM Cust>). <IBM Cust> has requested the following services from IBM:

- ➢ IBM FileNet Performance Optimization Package (Performance Optimization) for one of the following:
  - – small system (1 ECM Device[1]) or
  - – medium system (2 – 3 ECM Devices) or
  - – large system (4 – 5 ECM Devices).

Performance Optimization Package provides systematic data gathering, in-depth analysis, and recommendations for system performance optimization. However, IBM recommends follow-on regular tune-ups to revitalize <IBM Cust>'s IBM FileNet system(s) as <IBM Cust> modifies their system profile (e.g. adding users, increasing capture volumes, changing content storage architectures).[2]

The scope of this package is limited to one FileNet Production environment, IBM FileNet P8 (P8) or IBM FileNet Image Services (IS).

The package will include the following activities:

a. Review one IBM FileNet Configuration (IS or P8)

b. Install Monitoring Tools

c. Perform data collections of the source content required for the analysis of <IBM Cust> production environment.

d. Deliver & Review the Initial Performance Optimization Report

e. Deliver & Review the Final Performance Optimization Report

f. Deliver project management and coordination

While the Performance Optimization Package provides a comprehensive set of recommendations, it is <IBM Cust>'s responsibility to determine the feasibility of implementing and to implement IBM's recommendations.

This package includes a set of tasks that must complete to facilitate a performance optimization. The actual duration of each task varies from customer to customer, based upon their knowledge of the products and the complexity of the production environment.

The resources required for this project will include both the IBM and <IBM Cust> personnel.

Any change in the scope of work defined in this Service Description requested by <IBM Cust> may result in additional costs and must be documented in a Project Change Request (PCR).

2. Resources

The <IBM Cust> Project Team will consist of the resources from the ECM Software Services Account Team, the <IBM Cust> technical staff and, when applicable, an IBM Business Partner. Examples of Project Team members are listed below.

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[1] ECM Devices is any number of engines deployed in a single domain.
[2] IBM also offers a Performance Optimization Annual Service. Please contact your Software Services Sales Leader for details.

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2.1 ECM Software Services Team Resources

The ECM Software Services Project Lead coordinates the appropriate ECM Software Services resources as required. The ECM Software Services Team typically includes the following members:

- Project Manager (PIM) – Project Lead
- Performance Optimization Specialist (Specialist)
- IT Consulting Specialist (Delivery Consultant)
- Software Sales Representative (SSR)
- Sales IT Specialist (ITS)

2.2 <IBM Cust> Team Resources

<IBM Cust> will need to identify internal personnel to fill the roles of the <IBM Cust> Project Team. <IBM Cust> is responsible for selecting a Project Lead to share lead responsibilities with the ECM Software Services Project Lead.

Depending upon, the project the <IBM Cust> Project Team may include any of the following roles:

- Project Lead
- System Administrator
- Database Administrator

3. Role Definitions

<IBM Cust> will need to identify internal personnel to fill the roles as listed in Section 3, Resources. The following outlines the general roles and responsibilities for each of these individuals. Additional resources may be required at various phases of the installation. Likewise, some of the roles identified above may not be required.

Project Lead - This individual will represent <IBM Cust> resources and provide project coordination in conjunction with the ECM Software Services Project Lead.

P8 or Image Manager System Administrator (1 to 3 people) - This individual serves as the ongoing FileNet system administrator and will provide proper passwords and access to the FileNet system as necessary for the delivery of this package service.

Database Administrator (1 person) - This individual serves as the on-going database administrator. This individual will also provide proper passwords to allow the Optimization Specialist to perform his or her functions in the course of this package service.

4. Responsibilities

4.1 <IBM Cust> Responsibilities

In order to facilitate a delivery, <IBM Cust> has the responsibility to provide the following:

a.) <IBM Cust> will meet the following prior to initiation of the Performance Optimization Project:

1. A current, supported version of ECM (IBM FileNet Image Services (IS), eProcess, Content Manager (CM), Business Process Manager (BPM)) software for the selected system is installed and operational.

2. If the service is being performed on a CM or BPM system, the ECM Device must be running version 3.5.2 or later.

3. Perform a network check (verify ECM Device connectivity to network).

4. Provide a stable system environment during the service-monitoring period.

5. Environments running IS and CM and are considered two separate systems.

6. Environments running IS and BPM are considered two separate systems.

7. Hardware and/or software additions or modifications to <IBM Cust>'s IBM FileNet system must be completed prior to (preferably) or after delivery of these services.

b.) <IBM Cust> acknowledges that:

1. The results of this engagement may indicate that problems exist on the network. The network observation, which may take place during the engagement, is investigative only and focuses on IBM FileNet TCP behavior. Network interaction with other third party or in-house applications and other network observation or corrective action are not included in this engagement.

2. The results of this engagement may indicate an application code review may be needed. However, no application code review is included in this engagement.

3. The results of this engagement may indicate that an analysis of database indices may be needed. However, no database indices review is included in this engagement.

4. The Performance Optimization is delivered remotely via "dial-in" and conference calls, and there is no on-site activity associated with its delivery. As such, no travel time or expense is anticipated or included with the service.

5. The cost to implement any recommendations made as a result of the Performance Optimization Package described herein is not included in the package. Any implementation of recommendations made herein should be delivered by a Delivery Consultant or by <IBM Cust> themselves[3].

c.) A Project Lead with sufficient authority to:

1. Represent <IBM Cust>'s interests
2. Serve as the focal point for all decisions and communications
3. Coordinate activities assigned to <IBM Cust> resources
4. Sign project-related documents

d.) Provide a completed *Performance Questionnaire* prior to the Kick-off conference call.

e.) Provide access to the required hardware and software in a timely manner to achieve the appropriate optimization.

f.) Remote access to the existing IBM FileNet system including:

1. Dial-in modem access: 9600-baud dial-up modem or better
2. Password: fnsw, SysAdmin and database Internal Passwords.
3. Optional: Internet access and key staff e-mail addresses.
4. Locally stored statistical files and logs generated by and for this service.

g.) Implementation of any or all of IBM's recommendations.

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[3] IBM recommends that <IBM Cust> have their local Consultant assist in implementing any recommendations. Should <IBM Cust> elect to have a Consultant implement the recommendations, these services will be delivered separately on a Time and Materials (T&M) basis plus expenses. IBM will work with <IBM Cust> customer team to contact and engage the local Consultant or Delivery Manager to arrange for delivery of these services.

h.) Product Subscription and Support Agreement in place through IBM.

i.) <IBM Cust> will make available all <IBM Cust> personnel required for this project based on the agreed-upon project schedule. Any significant delays caused by <IBM Cust> personnel not being available or project prerequisites not being met may result in schedule delays, which can impact the project sufficiently to require a chargeable PCR addressing additional or extended IBM personnel requirements and additional costs.

4.2   IBM Responsibilities

The IBM responsibilities for this package include:

a.) Review ECM FileNet Environment

b.) Install Performance Tools

c.) Perform Initial Data Collection

d.) Deliver & Review Initial Report

e.) Perform Comprehensive Data Collection

f.) Deliver & Review Final Report

g.) Deliver Completed Performance Optimization Checklist

5.   Limitations

5.1   Service Limitations

The Performance Optimization Package does not include repairs, corrections or troubleshooting of performance degradation, data corruption, errors and faults that are discovered during the process due to hardware failures, or non-qualified hardware or operating systems. Repairs, corrections or troubleshooting of such errors and faults will be <IBM Cust>'s responsibility; any IBM involvement will be charged on a Time and Materials (T&M) basis.

ECM Software Services resources will be provided Monday through Friday from 8:00 a.m. to 5:00 p.m., excluding holidays and vacation time. Specific details regarding schedules will be mutually agreed upon prior to the project start-date.

5.1.1   Travel & Living Expenses

There are no travel and living expense requirements for this service. This service does not include domestic travel and living expenses incurred by ECM Software Services resources traveling to <IBM Cust>'s site in order to fulfill IBM's tasks and responsibilities pertinent to delivering this Performance Optimization service.

6.   Project Tasks & Deliverables

The Performance Optimization Service is comprised of two successive sessions of detailed data collection and in-depth analysis of <IBM Cust>'s FileNet System. IBM will provide an initial report outlining recommendations and suggestions for enhancements to increase performance and/or to improve system performance. Once <IBM Cust> has implemented changes selected from the initial recommendations, IBM will conduct the follow up data collection and analysis. A subsequent tuning allows the IBM FileNet system to be optimized within the limits of the available hardware resources.

The Project Team will perform the following tasks. Deliverables for each task are detailed within the task descriptions.

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6.1   Task 1: Kickoff Conference Call

The purpose of this conference call is to prepare both the <IBM Cust> project team and the Performance Optimization Specialist for the Performance Optimization Project. Topics of discussion will include <IBM Cust>'s requirements, expectations, prerequisites, and schedules.

6.1.1   Project Services Description Review

The PM or Performance Optimization Specialist will review the Services Description, the deliverables, and the project tasks with <IBM Cust>'s PM.

The starting date to begin the Performance Optimization Project for <IBM Cust> will be scheduled and confirmed by IBM and the assigned <IBM Cust> PM.

IBM anticipates scheduling these services within fifteen business days from date of initiation.

6.1.2   Performance Optimization Service Requirements Questionnaire Review

At the onset of this project, the Performance Optimization Specialist will need to review <IBM Cust>'s ECM Device configuration (hardware, operating system and site specific software), IBM specific network configuration, and <IBM Cust>'s System Diagram. IBM will ask <IBM Cust> to complete a *Performance Questionnaire*, outlining the parameters of their IBM FileNet system(s) as well as any specific concerns or problems detected prior to this discussion.

6.1.3   Project Status

The PM will track all issues and document their resolution in an Issues Log. Any issue whose resolution requires a change will be documented in a PCR.

6.2   Task 2: Tools Installation

The Performance Optimization Specialist will install and setup ECM data collection tools on to <IBM Cust>'s system. These tools are monitoring tools and scripts only that perform read tasks to collect live performance metrics and logs of <IBM Cust>'s system under standard operational loads.

6.3   Task 3: Initial Performance Optimization

The Initial Performance Optimization phase will allow the Performance Optimization Specialist to gather initial data and provide recommendations to establish a baseline for normal system operations. Failure to execute this initial analysis could lead to flawed results from the Performance Optimization Study.

6.3.1   Initial Data Collection

The Performance Optimization Specialist will collect data and monitor <IBM Cust>'s IBM FileNet system. Data collected will include:

- Critical system resources:
- IBM FileNet system architecture components
- Network Performance
- Sub-system elements:
    - CPU Utilization

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   – System Memory Usage

   – FileNet Shared Memory

   – I/O Subsystem Performance

6.3.2 Initial Performance Optimization Report

The Performance Optimization Specialist will analyze the data collected to provide initial recommendations to modify <IBM Cust>'s FileNet system to increase performance.

The Initial Report with IBM's recommendations may include the some or all following:

- Critical System Resource Analysis

   – CPU utilization

   – System Memory Usage

   – I/O Subsystem Performance

   – Network Performance

   – Operating System

   – Garbage Collection for J2EE server

   – Peripherals

- Database(s) Analysis

   – Oracle, SQL or DB2 databases

   – ECM proprietary databases

- Memory Structures Analysis

- ECM Services Analysis

6.3.3 Initial Report Review

Following the delivery of the Initial Performance Optimization Report, the PM or the Performance Optimization specialist, will schedule a meeting to review the report and recommendations.

6.4 Task 4: Final Performance Optimization

<IBM Cust>'s implementation of recommendations from the Initial Performance Optimization Report will most likely shift system demands from <IBM Cust>'s original system settings to create a new load balance for the IBM FileNet system. Secondary effects that may have been present prior to implementation of IBM's recommendations are now measurable.

6.4.1 Second Data Collection

Following <IBM Cust>'s implementation of the recommendations provided in the Initial Performance Optimization Report, the Performance Optimization specialist will now perform a second data collection and an additional in-depth analysis of <IBM Cust>'s IBM FileNet system.

6.4.2 Final Performance Optimization Report

The Final Performance Optimization Report provides a detailed analysis of the Performance Optimization Specialist's findings with additional recommendations for optimization within the limits of the available hardware resources. The Final Report will address some or all of the following:

- Executive Summary of Recommendations

- Critical System Resource Analysis

- Database(s) Analysis

  - Oracle, SQL and/or DB2 databases
  - IBM ECM proprietary databases

- Memory Structures Analysis

- I/O Performance Analysis

- ECM Services Analysis

- ECM Cache Analysis

6.4.3 Final Report Review

Following the delivery of the Final Performance Optimization Report, the PM or the Performance Optimization specialist, will schedule a meeting to review the report and recommendations.

6.5 Task 5: Project Completion Checklist

Upon completion of the Final Report Review, the Performance Specialist will deliver to <IBM Cust> a completed Performance Optimization Project Completion Checklist which constitutes completion of this project. Please refer to *Performance Optimization Project Completion Checklist.*

If issues arise after delivery of the Project Completion Checklist, <IBM Cust> should contact IBM Customer Support by using the IBM toll free Customer Service telephone number 1-800-426-7378 or 1-800-IBM-SERV.