Database Intervention Procedure (DBI)

Analysis

When a department identifies a problem, it is logged via phone, email or web submission with the MCG Campus Helpdesk. The Helpdesk documents the problem in the form of a trouble ticket. The trouble ticket is assigned to the appropriate Application Support staff.

The information analyst determines if a database intervention (DBI) is necessary to create a solution to the problem. Every effort will be made to identify a functional solution first, including utilizing application software and exhausting all available resources. Once a DBI has been diagnosed, the information analyst pursues this procedure and begins and maintains a DBI Checklist until satisfactory completion of the DBI process. The information analyst takes responsibility for managing the DBI process and coordinating with the other members of the DBI team.

Additionally, the information analyst files a case with PeopleSoft when the source of the problem has been determined to be PeopleSoft delivered functionality or code. The case number will be cited in the ticket. In the case of repeated issues, the ticket will cite the case number from the original ticket and the case updated if additional information is brought to light through the new ticket.

Authorization

The information analyst pursues authorization from both internal management and institutional management. An email is sent to the Applications Systems Director detailing the ticket number, institution, timeline for completion including any restrictive deadlines, and the nature of the problem and how the DBI will rectify it.

The Applications Systems Director responds to the email with approval to continue, and by way of notification, cc's the Director of Support Services, the CIO, the Manager of Programming, the Manager of Database and Applications Administration, and the DBAs. The Director of Support Services responds with an approval of the DBI for the process to be completed. Both approvals are noted on the DBI Checklist and in the ticket.

A form letter is forwarded to the individual in the department who placed the trouble ticket to deliver to the Vice President of Finance/CFO to be signed for written approval. The form letter includes the same information detailed above in the internal authorization email and is required to be returned with a signature. The signed document is kept with the DBI Checklist.

Clone

The information analyst determines which test database is available for use. They then initiate the process for acquiring a clone of the institution's production database by assigning the ticket to the DBA. Instructions are given for cloning the institutional production database to the correct test database, and producing a snapshot of the cloned database for refreshing later. The information analyst determines if the clone should be made from the previous nights backup or from the current production instance and requests which in the instructions to the DBA. Additionally, the information analyst specifies a time for completion of the cloning and snapshot process.

Upon completion of the clone and snapshot, the DBA notifies the information analyst by updating the trouble ticket and reassigning it to the information analyst. The DBA includes any necessary information regarding passwords and access to the clone in the ticket.

Develop Fix

The information analyst is responsible for determining the problem to be fixed and the nature of the fix required. They document all necessary data for the fix and include it in the ticket in an orderly and understandable fashion. The ticket is then assigned to Application Programming to write the appropriate script to correct the problem. The information analyst provides information about the specific test database hosting the clone and the passwords, so that the developer can test the script application once it is written.

Confirm 1 The developer writes the script and tests it against the clone. The script is stored in a secure area and the developer documents the script name, location and information in the ticket for the benefit of the DBA, who applies it later. The script is copied into the ticket and the ticket assigned to the information analyst

At this point, the information analyst opens the clone and tests the documented conditions for success of the script.

Apply Snapshot Upon confirming the success of the application of the script to the clone; the information analyst sets up the conditions for a secondary test. The ticket is assigned to the DBA team, and the DBA is asked to apply the snapshot to the clone to return it to its original state. The instructions to the DBA request that the script documented earlier by the developer be applied after the snapshot is applied.

The DBA applies the snapshot and runs the script to the clone. The DBA then assigns the ticket to the information analyst.

Confirm 2 The information analyst again confirms the success of the script and documents it in the ticket.

Notify 1 The information analyst notifies the customer that a script has been developed and successfully tested against a test environment. The script is scheduled for application to the production instance the next business day, in the morning before 8am, to prevent interfering with institutional use of the database. On occasion, especially with production down situations, the script may be applied during regular business hours. This may necessitate a request that all users logoff the production database until application of the script and verification of the application is complete.

Production The information analyst starts the process to apply the script to the production instance. The ticket is assigned to the DBA team and a request entered in the ticket for the script to be applied to production at a time specified by the information analyst.

The DBA applies the script to the production instance and assigns the ticket to the information analyst. The information analyst confirms the successful results of the script on the production instance.

Notify 2 The information analyst notifies the customer of the successful application of the fix to the production instance and requests that the customer also confirm the results. The customer may also run additional queries, reports or processes to confirm the results. The customer notifies the information analyst of the success of the DBI.

All written documentation is completed, including the DBI Checklist document and filed along with any written confirmation and associated documents in the appropriate place.