



# **Release Notes**

## **Grants.gov System Services**

**June 25, 2009**

Release Notes 2009-03 June V1.2

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## ***Purpose***

This document defines the release of build **2009-03 June** of Grants.gov. It includes the scope, estimated schedule, identifies risks or impacts, functional release notes, as well as recommendations for mitigation and management. In addition, this document provides Acceptance Testing release notes, operational release notes, and Functional Test Cases that satisfy requirements associated with Deliverables 4.5.1 and 4.5.2.

## ***Background***

Software changes are collected from various sources as System Change Requests (SCRs) in the PVCS Tracker System. SCRs are categorized and go through a review process established by the Internal Control Board (ICB) of Grants.gov. SCRs gain approval through this process for inclusion in a Build.

## ***Scope***

The details of each SCR are listed in Appendix A, Operations Release Notes listed in Appendix B, test cases for each SCR are listed in Appendix C, and database query optimization listed in Appendix D. Below is the list of SCR's approved by the ICB to be included in release 2009-03 June:

Id	Title	Category	Functional Areas	Originator	Request Type	Defect Severity	Submit Date	Target Release
8767	Applicant & Grantor Registration - Edit & Confirm page	Apply		Rathna	SW defect	Major	4/19/07	2009-03 June
8779	Remove 2006 System Dependencies	Other Software	Email Notification	Mikael	Enhancement	Major	4/6/09	2009-03 June
8781	Services SQL query that's crashing oracle processes	Apply	System	Mikael	Enhancement	Major	4/6/09	2009-03 June
8783	Include AOR contact information in AOR requests going to E-biz POC via email	Other Software	Reports	Mikael	Enhancement	Major	4/6/09	2009-03 June
8784	Allow applicants to check registration status	Apply	Other Software	Mikael	Enhancement	Major	4/6/09	2009-03 June
8793	Track My Application Navigation & Copy changes	Apply	Other Software	Mikael	Enhancement.	Major	4/13/09	2009-03 June
8801	Grantor and Applicant registration process should use single LDAP connection for all registration operations	Applicant Registration	Other Software	Mikael	Enhancement.	Major	3/19/09	2009-03 June
8813	Add Applicant Login to left navigation bar	Applicant Registration	Other Software	Mikael	Enhancement	Major		2009-03 June
8814	Add time stamps for status "Validated" and for when Validation email is sent	Apply	Other Software	Mikael	Enhancement	Major	3/19/09	2009-03 June

Id	Title	Category	Functional Areas	Originator	Request Type	Defect Severity	Submit Date	Target Release
8815	Applicant Login screen - USERNAME field title has "case sensitive" - username field is not case sensitive	Applicant Registration	Other Software	Mikael	Enhancement	Major		2009-03 June
8817	Applicant Audit report does not display information correctly for all the logins	Applicant Registration	Other Software	Mikael	Enhancement	Major	3/19/09	2009-03 June
8819	e my username" - message displayed has a typo	Applicant Registration	Other Software	Mikael	Enhancement	Major		2009-03 June

***Emergency SCR's added to this build:***

None

## Schedule

	Activity	Scheduled Start - Completion Date	Primary Owner	Deliverable
1.	ICB	5/22/09	PMO	Candidate list of SCRs for Build
2.	Build Planning	5/26/09	ICB	Scored SCR Prioritization Worksheet
3.	SCR assessment	5/26/09 – 5/29/09	PMO	SCR update. Define functional requirements & identify use cases
4.	SCR Derived Requirements/ Technical Design - Preliminary	6/2/09	SI	Preliminary derived Functional design/ technical Requirements & LOE for Build
5.	Functional Requirements Freeze	6/3/09		Milestone
6.	Whiteboard Design Review	6/3/09	SI/PMO/IV&V	Preliminary Design Review for Build; TBD -GDIT work site/ Yugma
7.	SCR Derived Requirements - Final	6/4/09	SI	Final Functional design/ technical Requirements & LOE for Build
8.	Risk Mitigation	6/4/09	IV&V	Update to Build Planning Document
9.	Critical Design Review	6/4/09	SI/PMO/IV&V	Final Design Review for Build
10.	PMO Approves Build	6/5/09	PMO	Approved list of SCRs for Build
11.	Design Freeze	6/5/09		Milestone
12.	Outreach / Communications planning	6/8/2009	Outreach	Communication plan <sup>1</sup>
13.	Development, Unit and Integration Testing	6/6/09 – 6/21/09	SI	<b>Build</b> - Release Notes <sup>2</sup> for Acceptance Testing
14.	Code & Configuration Freeze	6/21/09	SI	Migrate Build to AT07. NOTE AT07 MUST be available 8:00 AM Mon 6/22.
15.	Acceptance Testing – Round 1	6/22/09 – 6/24/09	IV&V	Daily Test report
16.	SCR Fixes	6/25/09 – 6/25/09	SI	<b>Daily Fixed Build – available by 4:00 PM the following day</b> - Updated Release Notes if required - Release Notes for Operations <sup>3</sup>
17.	Acceptance Testing – Round 2	6/25/09	IV&V	Test report
18.	SCR Fixes	6/26/09	SI	<b>Fixed Build</b>
19.	Acceptance Testing – Deployment recommendation	6/26/2009	IV&V	Deployment recommendation
20.	Deployment readiness review Go/No Go	6/26/2009	PMO	Deployment decision

21.	Deployment Phase I	6/27/09 00:01	SI	<b>Build deployed in production</b>
22.	Post deployment review	6/29/09	PMO	Lessons Learned

<sup>1</sup> Representative items include communication with applicants and training for contact center staff; agency communications should consider deployment impact on closings.

<sup>2</sup>Release Notes for Acceptance Testing should include enough details about how a feature or bug fix is implemented to facilitate IV&V testing.

<sup>3</sup> Release Notes for Operations should include enough details about web/application server or database configuration changes and any component dependencies to allow the operations staff to install the build. The System Operations Guide maintained by the operations staff should be updated with every build based on these release notes.

## ***Risk/Impact***

SCR implementation may impact Grants.gov customers and other stakeholders. The impact may be functional or operational. It may affect security, usability or performance of the application or require privacy considerations.

## **Risks or Impacts**

<b>Risk or Impact</b>	<b>Management Strategy</b>
None. There is no risk for the separation of 2006 DB system.	None
There should be No impact to S2S community for changes done of 2006 db separation.	None

## ***Approvals***

<b>Approval Level</b>	<b>Date Received</b>	<b>Approver</b>
Approval for Build	Content, 5/22/09	Dima Smirnoff
Cost / Schedule Approval	ICB- 5/26/09	Dima Smirnoff & PMO
Deployment to AT07	6/22/09	Marwan Abu-Fadel

## ***Deliverables***

### **Communications Plan**

Representative items include communication with applicants and training for contact center staff; agency communications should consider deployment impact on closings.

## Release Notes

Release Notes for Acceptance Testing includes the required details and test cases for a new feature or bug fix to facilitate IV&V testing. SI will also include the test cases used to approving the SCR to be promoted to AT07.

Release Notes for Operations (Rework Issues and SI Comments:  
Round 2 Rework Issues and SI Comments:

Based on the PMO/IV&V/SI QA report the following SCR were to be readdressed, some for new requirement changes/clarification, while others for

SCR	Title	Testing issues to be addressed by SI	SI Comments
	Release notes Comments.	Comment for Betty on the release notes.	All Comments release Versio
8784	Allow applicants to check registration status	New Requirements: <ul style="list-style-type: none"> <li>• Left align the status to match the remaining text on the left panel under the Welcome text</li> <li>• Add 2 blank lines between the Welcome text and the status</li> <li>• Separate the static text "AOR Status:" and &lt;status&gt; onto separate lines</li> <li>• Add 2 blank lines between the status and the <a href="#">Manage Applicant Profile</a> link</li> </ul>	Changes are i requirements Tuesday 11:19
8817	Applicant Audit report does not display information correctly for all the logins	IV&V Note [6/22/2009 2:17:23 PM(rgundulpet)]:  <u>Fail:</u> 1) For some of the existing applicant logins, which had correct information displayed for applicant audit report in May 09, no information is displayed. Ex: Test12. As noted in the SCR description, this user had correct information displayed. There were no issues in tested in May 09. Now "No audit data found for Test12" is displayed. Attached "Audit Report for Test 12.doc" has the screenprints from this build and the previous build testing for this login.  Please note that this is a sample login. There are multiple logins that have similar issue.  <u>Pass:</u> 1) Applicant Audit report displays Register, Grant and Revoke information for new users. Ex: Rathna-2009-03-1, Rathna-2009-03-2  <u>Pass:</u> 2) Applicant Audit report displays Grant, Revoke actions on existing users. Ex: 238  <u>Pass:</u> 3) Applicant Audit report is not case sensitive. Ex: ivvtest001, IVVTEST001, ivvTEST001 display same information.	Per our releas this report que any new chan tracked from th cannot be Auc This SCR sho properly and a data because line.  Marwan
8841	Received error message when registering new agency user	STATEMENT/PROBLEM When attempting to register an agency, an "Unable to create your account" error is displayed after the Submit button is clicked. Despite the error message being displayed, the agency	This bug was

SCR	Title	Testing issues to be addressed by SI	SI Comment
		account was created. Eric Hahn (IV&V) was able to log in using the username/password he created during registration.	

Appendix A: SCR Acceptance Testing Release Notes) does include required details about web/application server or database configuration changes and any component dependencies to allow the operations staff to install the build.

## Systems Operations Guide

The System Operations Guide maintained by the operations staff shall be updated with every build based on the Build notes if required.

## Version Control

Version Number	Author	Brief Summary of Update	Date
1.1	M Abu-Fadel	Release Notes for AT07 Release review	6/20/2009
1.2	M Abu-Fadel	Updated DB Table Change, Req for SCR 8781, schedule, cover sheet, and response for rework.	6/24/2009

## Known Issues:

None

## Database Table changes

A new column VALIDATION\_DATE is added to TSTATUS table that is populated by a trigger to insert Validated time stamp for that tracking number. An augmentation to an existing trigger was added to insert a Validated time status in TSTATUSHIST. No new triggers were created; instead an update to an existing trigger was implemented to populate Validation\_Date field values to the TSTATUS and TSTATUSHIST table. Highlighted below are the changes.

- In an existing trigger the following was added:
 

```

      if :new.status = 'Validated' then
          :new.validation_date := sysdate;
      end if;
      
```

Coordination with IV&V was performed on Tuesday 1:30 PM over a Yugma session.

**Rework Issues and SI Comments:**

**Round 2 Rework Issues and SI Comments:**

Based on the PMO/IV&V/SI QA report the following SCR were to be readdressed, some for new requirement changes/clarification, while others for

SCR	Title	Testing issues to be addressed by SI	SI Comments
	Release notes Comments.	Comment for Betty on the release notes.	All Comments are addressed and/or corrected in this release Version 1.2
8784	Allow applicants to check registration status	<p>New Requirements:</p> <ul style="list-style-type: none"> <li>• Left align the status to match the remaining text on the left panel under the Welcome text</li> <li>• Add 2 blank lines between the Welcome text and the status</li> <li>• Separate the static text "AOR Status:" and &lt;status&gt; onto separate lines</li> <li>• Add 2 blank lines between the status and the <a href="#">Manage Applicant Profile</a> link</li> </ul>	Changes are implemented based on new requirements submitted by Betty Via email on Tuesday 11:19 AM.
8817	Applicant Audit report does not display information correctly for all the logins	<p>IV&amp;V Note [6/22/2009 2:17:23 PM(rgundulpet)]:</p> <p><u>Fail:</u> 1) For some of the existing applicant logins, which had correct information displayed for applicant audit report in May 09, no information is displayed.            Ex: Test12. As noted in the SCR description, this user had correct information displayed. There were no issues in tested in May 09. Now "No audit data found for Test12" is displayed. Attached "Audit Report for Test 12.doc" has the screenprints from this build and the previous build testing for this login.</p> <p>Please note that this is a sample login. There are multiple logins that have similar issue.</p> <p><u>Pass:</u> 1) Applicant Audit report displays Register, Grant and Revoke information for new users.            Ex: Rathna-2009-03-1, Rathna-2009-03-2</p>	<p>Per our release notes and data available in 2007 DB this report query what in the 2007 DB and displays it. any new changes to applicant permissions will be tracked from this release on forward. Previous data cannot be Audited because it does not exist in DB. This SCR shows that new applicant are working properly and applicant from 2004 is not displaying data because in 2004 the adobe system was not on line.</p> <p>Marwan</p>

SCR	Title	Testing issues to be addressed by SI	SI Comments
		<p><u>Pass:</u> 2) Applicant Audit report displays Grant, Revoke actions on existing users. Ex: 238</p> <p><u>Pass:</u> 3) Applicant Audit report is not case sensitive. Ex: ivvtest001, IVVTEST001, ivvTEST001 display same information.</p>	
8841	Received error message when registering new agency user	<p>STATEMENT/PROBLEM</p> <p>When attempting to register an agency, an “Unable to create your account” error is displayed after the Submit button is clicked. Despite the error message being displayed, the agency account was created. Eric Hahn (IV&amp;V) was able to log in using the username/password he created during registration.</p>	This bug was corrected and ready for IV&V

## Appendix A: SCR Acceptance Testing Release Notes

SI deployed the 2009-03 June build on AT07 and it’s ready for IV&V testing.

SCR Functional Release Notes:

SCR	Title	Requirements
8767	Applicant & Grantor Registration - Edit & Confirm page	<p>Final approved requirements attached to tracker and scr. Document name (‘Final Approved requirements.docx) all other documents are for brainstorming and idea.</p> <p>Final Approved requirements.docx is the approved requirement screen shots.</p>
8779	Remove 2006 System Dependencies	<p>1. Agency</p> <p>Navigate to the Manage Opportunity List page and check for Legacy column (should be removed).</p>

SCR	Title	Requirements
		<p>Make sure that no 2006 opportunities are listed in this page.</p> <p>Navigate to the Manage Application Templates page and make sure that there are no 2006 templates.</p> <p>New package drop down menu for the templates shouldn't have any 2006 templates.</p> <p>View all Submitted applications page shouldn't have 2006 submissions.</p> <p>Retrieve Submitted Applications page and make sure that there are no 2006 submissions.</p> <p>Assign Agency Tracking Number page should not have 2006 submissions.</p> <p>2. Search</p> <p>Search page basic and Advance should not have any 2006 opportunities in Search pages.</p> <p>3. Applicant</p> <p>Check Application Status should not have 2006 submissions.</p> <p>4. E-Biz</p> <p>Check Application Status should not have 2006 submissions.</p> <p>5. S2S Applicant</p> <p>Get Opportunity List should not have 2006 opportunities listed.</p> <p>Use Get Application List should not have 2006 submissions.</p> <p>Use the Get App Status Detail method should not have 2006 submissions</p> <p>6.S2S Agency</p> <p>Run GetApplicationListTest should not have 2006 submissions as part of response.</p> <p>Run GetApplicationTest method with a 2006 submission and make sure that submission is not returned.</p> <p>Run GetApplicationZipTest method with a 2006 submission and make sure that submission is not returned.</p> <p>Run ConfirmApplicationDeliveryTest to a 2006 submission.</p> <p>Run AssignAgencyTrackingNumTest to a 2006 submission.</p> <p>Create a New Agency without creating it on 2006 system.</p>

SCR	Title	Requirements
		<p>XMLExtract. Only 2007 XML extract</p> <p>RID 49: UPDATED -- NEW REQUIREMENT IS: From the 2007 UI, Authorized users shall have the ability to create and publish electronic opportunities in Adobe format.</p> <p>OLD REQUIREMENT WAS: From the 2007 UI, Authorized users shall have the ability to create and publish electronic opportunities in Adobe format. Pure Edge opportunities should be added/modified/deleted form 2006 system via the 2006 link</p> <p>RID 50: UPDATED -- NEW REQUIREMENT IS: To create an electronic 2007 grant opportunity, the user shall identify the following: A unique grant funding opportunity number in 2007 system and DB only.</p> <p>OLD REQUIREMENT WAS: To create an electronic 2007 grant opportunity, the user shall identify the following: A unique grant funding opportunity number in 2007 and 2006. If creating a 2006 Opportunity the system Shall NOT be able to ensure this is unique across 2006 &amp; 2007 systems.</p> <p>RID 51: UPDATED -- NEW REQUIREMENT IS: From 2007 UI A unique grant funding opportunity number shall exist for 2007 ONLY</p> <p>OLD REQUIREMENT WAS: From 2007 UI A unique grant funding opportunity number shall exist for 2007 &amp; 2006 ONLY</p>
8781	Services SQL query that's crashing oracle processes	<p>During the initial investigation SI worked on a search query but after analysis that was not the cause of the DB server CPU overload.</p> <p>Optimize the following: Query: SELECT PROCESSID FROM TSTATUS WHERE STATUS = 'FIFReceiving' AND ROWNUM = 1 FOR UPDATE NOWAIT SKIP LOCKED</p>

SCR	Title	Requirements
8783	Include AOR contact information in AOR requests going to E-biz POC via email	<p>RID 543: New Requirements: After "Registration Successful" screen message is displayed to the applicant the system shall send an email to the AOR of the Applicant registered Duns with the following content:</p> <p>From: OS Support@Grants.Gov Sent: Wed 5/27/2009 12:59 AM To: Applicant email Subject: ACTION REQUIRED: Applicant &lt;last name&gt; Requesting Grants.gov AOR Status Attention E-Business Point of Contact,</p> <p>The following individual from your organization has registered with Grants.gov and requested to be designated as an Authorized Organization Representative (AOR) for your organization. Designating this person as an AOR will allow them to submit grant applications to federal agencies via Grants.gov on behalf of your organization.</p> <p>Name: &lt;first and last name&gt; Job Title: &lt;Title&gt; Email: &lt;email&gt; Phone: &lt;phone&gt; DUNS: &lt;DUNS&gt;</p> <p>This user will not be able to submit an application on behalf of your organization until this designation process has been completed. As the CCR E-Biz POC, you are the only person authorized for your organization to approve this individual as an AOR.</p> <p>To authorize this AOR, login to the E-Business Point of Contact (E-Biz POC) section of Grants.gov at <a href="http://at07apply.grants.gov/apply/logincontrol.jsp?goto=../secured/AorLogin.jsp&amp;loginpage=/jsp/AorMgrGetID.jsp">http://at07apply.grants.gov/apply/logincontrol.jsp?goto=../secured/AorLogin.jsp&amp;loginpage=/jsp/AorMgrGetID.jsp</a>; then enter your organization's DUNS number and your organization's Central Contractor Registry (CCR) MPIN, which was assigned to your organization when it enrolled with the CCR. If you have forgotten your organization's CCR MPIN password, contact the CCR by calling 1-888-227-2423 or visit: <a href="http://www.ccr.gov">http://www.ccr.gov</a>.</p> <p>If you determine this individual should not be assigned AOR access, do not update the user roles when you review the request in Grants.gov. You can also delete AORs from this section.</p> <p>If you have questions regarding the E-Biz POC role assignment process, information is available on</p>

SCR	Title	Requirements
		<p>Grants.gov: <a href="http://www07.grants.gov/applicants/org_step5.jsp">http://www07.grants.gov/applicants/org_step5.jsp</a>.</p> <p>You can also contact Grants.gov at the following email address, <a href="mailto:support@grants.gov">support@grants.gov</a>, or call 1-800-518-4726.</p> <p>Regards,</p> <p>Grants.gov</p> <p>PLEASE NOTE: This email is for notification purposes only. Please do not reply to this email for any purpose.</p>
8784	Allow applicants to check registration status	Functionality is not changing just display the status on the left menu.
8793	Track My Application Navigation & Copy changes	<p>The Screen was changed to display new functionality for resubmitting a bad-tracking number. Wording was changed to support this functionality. (see Final Req image attached).</p> <p>Section 4 will not be implemented in this build.</p>
8801	Grantor and Applicant registration process should use single LDAP connection for all registration operations	<p>Change the Grantor and Applicant registration process to use a single LDAP connection to perform all registration operations.</p> <p>There will be no functionality or requirement changes to the collected data, just the connection pool.</p>
8813	Add Applicant Login to left navigation bar	<p>The link will be available only when the "For Applicant" sub-menu is expanded and search. Below is the list of pages to have this new Applicant login link:</p> <p>SEARCH:</p> <p><a href="http://at07web.grants.gov/search/basic.do">http://at07web.grants.gov/search/basic.do</a>  <a href="http://at07web.grants.gov/search/category.do">http://at07web.grants.gov/search/category.do</a>  <a href="http://at07web.grants.gov/search/agency.do">http://at07web.grants.gov/search/agency.do</a>  <a href="http://at07web.grants.gov/search/advanced.do">http://at07web.grants.gov/search/advanced.do</a>  <a href="http://at07web.grants.gov/search/search.do">http://at07web.grants.gov/search/search.do</a>  <a href="http://at07web.grants.gov/search/announce.do">http://at07web.grants.gov/search/announce.do</a></p> <p>APPLY:</p> <p><a href="https://at07apply.grants.gov/apply/checkAppIStatus.faces">https://at07apply.grants.gov/apply/checkAppIStatus.faces</a>  <a href="https://at07apply.grants.gov/apply/checkAppIStatus.faces">https://at07apply.grants.gov/apply/checkAppIStatus.faces</a> (results page)  <a href="http://at07apply.grants.gov/apply/OrcRegister">http://at07apply.grants.gov/apply/OrcRegister</a></p>

SCR	Title	Requirements
		<p>https://at07apply.grants.gov/apply/IndCPRegister            https://at07apply.grants.gov/apply/applicantRegister.faces?cleanSession=1            https://at07apply.grants.gov/apply/forms_apps_idx.html            http://at07apply.grants.gov/apply/GetGrantFromFedgrants</p>
8814	Add time stamps for status "Validated" and for when Validation email is sent	<p>In TSTATUS &amp; TStatusHist table add 1 new time stamps for the following functionality:</p> <ol style="list-style-type: none"> <li>1. Time stamp for what the Submissions gets Validated.</li> </ol> <p>Time stamp for when the Validated or Rejected email is Sent out is the exact time as Validated or Rejected time stamp.</p>
8815	Applicant Login screen - USERNAME field title has "case sensitive" - username field is not case sensitive	<p>This is a text change only and no functionality is affected. Removing the text "case sensitive" next to the username field</p>
8817	Applicant Audit report does not display information correctly for all the logins	<p>The fix would only be reflected in accounts created going forward. The field should be case insensitive. The result new registered applicant should display registered, grants and revoke permissions.</p>
8819	"Send me my username" - message displayed has a typo	<p>"An email was send to your mailbox"</p> <p>To be grammatically correct it should say "An email was sent to your mailbox"</p>

## Appendix B: Operations Release Notes

Operations Release notes added to this build.

This build does not alter any system operations or submissions; however it requires TMP's effort to update the login and reset login name/password functionality, and the new Track your application instructions.

## Appendix C: Functional Test Cases

### SCR-8786: Applicant & Grantor Registration - Edit & Confirm page

Test Case Name:	Applicant Edit Page			T/C #:	1
Description:	Applicant & Grantor Registration - Edit & Confirm page			Status:	PASS
Start Condition:	Valid duns registered with CCR and entry in TCCR data			SCR#	8767
Overall Pass Criteria:	PASS				
<b>Test Information</b>					
Name of Tester:	Marwan		Date:	6/19/09	
Build Number:	2009-03 June				
Comments	None				
<b>Steps</b>					
Steps	Action	Expected Results	Pass	Fail	N/A
1	Check Username, password and confirm password fields on data entry page and edit/submit page.	These fields are available on all the pages.	PASS		
2	Check edit / submit button.	It is available on the left of the page.	PASS		
3	Check "below the header for applicant add the following:	This is available on the second page.	PASS		

4	Check for asterisks	All the mandatory fields have asterisks.	PASS		
5	Check the edit screen	It has all the data entered by the user, no additional data and has edit/submit button.	PASS		
6	Select the edit button on the edit screen.	System displays page with all the data entered previously and can be edited on the new page displayed.	PASS		
7	Submit the registration form with no data for the required fields.	Each field validation message is displayed as shown in the requirements screen-print (attached to the SCR).	PASS		

### SCR-8781: Services SQL query that's crashing oracle processes

**Test Case**

Name: SQL QUERY OPTIMIZATION T/C #: 2  
 Description: Services SQL query that's crashing oracle processes Status: PASS  
 Start: 3 services are running DBs 5  
 Condition: CPU is at 80% SCR# 8781  
 Overall  
 Pass  
 Criteria: PASS

**Test Information**

Name of Tester: Marwan Date: 6/19/09  
 Build Number: 2009-03 June  
 Comments: None

Steps	Action	Expected Results	Pass	Fail	N/A
1	Reconfigure the DB server to run the new Query at 3 services and see CPU drop	CPU below 80%	Yes		
2	Created the Test using the sample production DB	CPU below 30%	Yes		

### SCR- 8783: Include AOR contact information in AOR requests going to E-biz POC via email

Test Case Name:	AOR Email			T/C #:	3
Description:	AOR contact information in AOR requests going to E-biz POC via email			Status:	PASS
Start Condition:	Email Request should have AOR information			SCR#	8783
Overall Pass Criteria:	PASS				
<b>Test Information</b>					
Name of Tester:	Marwan		Date:	6/19/09	
Build Number:	2009-03 June				
Comments	None				
<b>Test Information</b>					
Steps	Action	Expected Results	Pass	Fail	N/A
1	once applicant register and email should be sent to EBIZ	Email Send	Pass		

2	Email should include AOR information	Include AOR contact information in AOR requests going to E-biz POC via email: * Requesting AOR's name * Requesting AOR's email address * Requesting AOR's DUN	Pass		
---	--------------------------------------	--	------	--	--

### SCR-8784: Allow applicants to check registration status

Test Case Name:	Registration Status			T/C #:	4
Description:	Allow applicants to check registration status			Status:	PASS
Start Condition:	Applicant Login Name and password is valid. Applicant does not have AOR permissions			SCR#	8784
Overall Pass Criteria:	PASS				
Test Information					
Name of Tester:	Marwan		Date:	6/19/09	
Build Number:	2009-03 June				
Comments	None				
Steps	Action	Expected Results	Pass	Fail	N/A
1	Login As none approved Applicant	Applicant Landing Page Open	Pass		

2	Left Menu Should display Applicant status with Email sent to AOR	Status Diplayed on the left menu	Pass		
3	EBIZ Authorize the applicant	Applicant Authorized	Pass		
4	Login As none approved Applicant	Applicant Landing Page Open	Pass		
5	Left Menu Should display Applicant status: Approved	Status Diplayed on the left menu	Pass		
6	Log out	Logout Completed	Pass		

### SCR-8793: Track My Application Navigation & Copy changes

Test Case Name:	Track My Application			T/C #:	5
Description:	Track My Application Navigation & Copy changes			Status:	PASS
Start Condition:	Must have a Valid and invalid Tracking number			SCR#	8793
Overall Pass Criteria:	PASS				
Test Information					
Name of Tester:	Marwan		Date:	6/19/09	
Build Number:	2009-03 June				
Comments	None				
Steps	Action	Expected Results	Pass	Fail	N/A

1	Navigate to track my Application menu	Track my application entry field	Pass		
2	Enter 2 valid, 1 just submitted, and one invalid tracking number	Entries accepted	Pass		
3	Valid tracking number displayed on 1st field	Validated	Pass		
4	Just submitted tracking number displayed in 2nd field	Processing	Pass		
5	Invalid tracking number displayed in a test box	Displayed and can be corrected	Pass		
6	Correct invalid Tracking number	New tracking number entered	Pass		
7	Click on Submit	Tracking number reprocessed	Pass		

### SCR-8801: Grantor and Applicant registration process should use single LDAP connection for all registration operations

Test Case Name:	Register Applicant		T/C #:	6
Description:	Register New Applicant		Status:	PASS
Start Condition:	Must have a valid CCR registered DUNS		SCR#	8801
Overall Pass Criteria:	PASS			

Test Information					
Name of Tester:	Marwan		Date:	6/19/09	
Build Number:	2009-03 June				
Comments	None				
Steps	Action	Expected Results	Pass	Fail	N/A
1	Go to register applicant	register applicant entry field displayed	Pass		
2	Enter all data on a single screen	Applicant registration fields displayed	Pass		
3	On submit all registration should pass on one ldap		Pass		

### SCR-8813: Add Applicant Login to left navigation bar

Test Case Name:	Applicant Login		T/C #:	7	
Description:	Add Applicant Login to left navigation bar		Status:	PASS	
Start Condition:	open www.grants.gov		SCR#	8813	
Overall Pass Criteria:	PASS				
Test Information					
Name of Tester:	Marwan		Date:	6/19/09	
Build Number:	2009-03 June				
Comments	None				

Steps	Action	Expected Results	Pass	Fail	N/A
1	The link will be available only when the "For Applicant" sub-menu is expanded and search.	APPLICANT LOGIN LINK IS VISIBLE ON SEARCH AND APPLY PAGES	PASS		
2	Below is the list of pages to have this new Applicant login link:	APPLICANT LOGIN LINK IS VISIBLE ON SEARCH AND APPLY PAGES	PASS		

### SCR-8814: Create time stamp for status "Validated"

Test Case Name:	Validated Time Stamp		T/C #:	8	
Description:	Create time stamp for status "Validated"		Status:	PASS	
Start Condition:	Submit a valid application		SCR#	8813	
Overall Pass Criteria:	PASS				
<b>Test Information</b>					
Name of Tester:	Marwan		Date:	6/19/09	
Build Number:	2009-03 June				
Comments	None				
<b>Test Information</b>					
Steps	Action	Expected Results	Pass	Fail	N/A
1	Submit a valid application	Valid tracking number displayed via the confirmation page	PASS		

2	Log to db5 and check the validated field	New validated time stamp is displayed in Tstatus and tststus history	PASS		
---	--	--	------	--	--

**SCR-8815: Applicant Login screen - USERNAME field title has "case sensitive" - username field is not case sensitive**

Test Case Name:	Text Change			T/C #:	9
Description:	login name is not case sensitive			Status:	PASS
Start Condition:	Remove Case sensitivity from login screen			SCR#	8815
Overall Pass Criteria:	PASS				
<b>Test Information</b>					
Name of Tester:	Marwan		Date:	6/19/09	
Build Number:	2009-03 June				
Comments	None				
<b>Steps</b>					
Steps	Action	Expected Results	Pass	Fail	N/A
1	Go to Agency/Applicant login screen	Screen displayed	Pass		
2	Login fields does not have "case sensitive"	No case sensitive displayed	Pass		

## SCR-8817: Applicant Audit report does not display information correctly for all the logins

Test Case Name:	Text Change			T/C #:	10
Description:	Applicant Audit report does not display information correctly for all the logins			Status:	PASS
Start Condition:	Help desk audit report should display authorization audit process			SCR#	8817
Overall Pass Criteria:	PASS				
<b>Test Information</b>					
Name of Tester:	Marwan		Date:	6/19/09	
Build Number:	2009-03 June				
Comments	None				
<b>Steps</b>					
Steps	Action	Expected Results	Pass	Fail	N/A
1	Login and agency super user	Agency Landing screen	Pass		
2	Go to Audit Report	Entry field is displayed	Pass		
3	Enter an applicant user name	Applicant report is displayed	Pass		
4	Report Fields:	All fields are populated	Pass		

Performed  
 By  
 Item ID  
 Audit Type  
 Action  
 Source

### SCR-8819: "Send me my username" - message displayed has a typo

Test Case Name:	Typo			T/C #:	11
Description:	Send My User name -agency-			Status:	PASS
Start Condition:	"Send me my username" - message displayed has a typo			SCR#	8819
Overall Pass Criteria:	PASS				
Test Information					
Name of Tester:	Marwan		Date:	6/19/09	
Build Number:	2009-03 June				
Comments	None				
Steps	Action	Expected Results	Pass	Fail	N/A
1	Go to Agency login page	Login page displayed	Pass		
2	Click on forgot my username	Send my username screen is displayed	Pass		
3	Enter user email address	Email entered	Pass		
3	Enter Agency Code	Agency code entered	Pass		
3	Click on submit	"An email was sent to your mailbox"	Pass		

## SCR-8779: Remove 2006 System Dependencies

<b>TestCase ID:</b>	REGRESSION	<b>Title:</b>	REGRESSION TEST SCRIPT	<b>Test Date:</b>	05-22-2009
<b>Test Type:</b>	Both (F&A)	<b>Priority:</b>	5 - Med	<b>Last Chg Date of Test Header:</b>	4/13/2009
<b>Tester Name:</b>	Kavitha Vemula				
<b>Objectives:</b>	To perform a regression of Grants.gov application.				
<b>Assumptions:</b>	System testing has been performed and the code is ready for regression.				
<b>Instructions:</b>	Navigate to the home page of Grants.gov.				
===== Test Script =====					
Step	Stimulus/Action	Respond/Expected Result	RID	Status	Bug #
1	Login to the application as an Agency user using below credentials: User name : GDIT-Test Password : password.	Logged into the application as Agency user with credentials provided.	111 112	Pass	
2	Make sure that below functionalities are displayed: Manage Agency User Profile Set Agency Level Create Agency Modify Agency Published Opportunities Applicant Report Organization Report Manage Opportunities Assign Agency Tracking Number Manage Application Package Templates Manage Agency Users View All Submitted Applications Applicant Audit Report Retrieve Submitted Applications Logout of Grants.gov	All the functionalities are available.	1 2 3	Pass	
3	Make sure that Manage Agency Profile displays the User information.	Profile is as expected.	5 6 7 8	Pass	
4	Navigate to the Create Agency link and create an agency.	A new sub agency is created.	10	Pass	
5	Navigate to the Modify Agency and update the profile.	User is able to update the agency profile.	11 12 13	Pass	
6	Navigate to the Set Agency Level and make sure that the sub agency created is displayed. Select sub agency and click on the Set Agency Level button.	Level is set to sub agency.	15 16 17	Pass	
7	Navigate to the Manage Agency Users and reassign roles to one of the users.	Successfully reassigned roles to one of the users.	23 24	Pass	
8	Create a template using the Manage Application package Templates functionality.	A template is created using the Manage Application Package Templates functionality	29 302	Pass	
9	Create an Opportunity using the Manage Opportunities page.	An opportunity is created using the Manage Opportunities page.	49 50 51 52	Pass	
10	Add synopsis and attachments to the above opportunity.	Synopsis and Attachments added to this opportunity.		Pass	
11	Create a competition inside the above opportunity.	A competition is created for the opportunity.	34 35 36	Pass	
12	Navigate to the Manage Application Templates page and modify a template.	A template is modified using the Manage Application Templates page.	43 44	Pass	
13	Navigate to the Manage Application templates page and delete a template.	Template is deleted using the Manage Application Templates page.		Pass	
14	Navigate to the Manage opportunities page and modify an opportunity.	Modified an opportunity using the Manage Opportunities page.		Pass	
15	Navigate to the Manage Opportunities page and delete an opportunity.	Opportunity is deleted successfully.		Pass	
16	Search for the opportunity using Search and Apply for Grants page.	Opportunity is displayed in the Search and apply for grants results.	365 366 367	Pass	
17	Navigate to the apply search and download this package.	Package is downloaded.	380 381 382	Pass	
18	Fill up the mandatory fields in the form and click on Check package for Errors.	All the mandatory fields are updated and validation passed.	257 258 259	Pass	

19	Make sure that the Submit button is enabled after the validation pass.	Submit button is enabled.	260	261	Pass	
20	Enter below user credentials and submit the package. User Name : marwanindv Password: marwan	Package is submitted and a confirmation appears with the tracking number assigned.	268	269	Pass	
21	Navigate to the View all submitted Applications and make sure that the tracking number is displayed.	Tracking number is displayed and the status of the package is displayed.	76	77	78	79
22	Make sure that the Submission notification is received.	Submission notification is received.			Pass	
23	Make sure that Validation Notification is received.	Validation Receipt notification is received.			Pass	
24	Navigate to the Retrieve all submitted applications page and search for the tracking number.	A record is present with this tracking number ready to download.	108		Pass	
25	Download the package using the download button.	Package is downloaded using the Download button.	109		Pass	
26	Acknowledge the Download complete using Acknowledge Download complete button.	an email notification is received for Agency Retrieval.			Pass	
27	Navigate to the Assign Agency Tracking number and search the tracking id.	Tracking id is displayed in the Assign Agency Tracking number page.	109		Pass	
28	Navigate to the Applicant Report and get a report for a user id.	Applicant report successfully retrieved.			Pass	
29	generate an Organization report.	Organization report retrieved			Pass	
30	Generate an applicant audit report.	Applicant audit report generated.			Pass	
31	log out of the application.	Logged out of the application.			Pass	
32	Login to the application as an applicant.	Logged into the application as an applicant.	223		Pass	
33	Check the profile by clicking on the Manage Applicant Profile link.	Profile is accurate.			Pass	
34	Check the Application status of the submitted application using Check application Status page.	Application status is checked.			Pass	
35	Log out of the application.	Logged out of the application.			Pass	
36	Log in to E-biz using the ebiz login.	Logged into Ebiz successfully.			Pass	
37	click on Manage Applicants from the left navigation bar.	Manage Applicants page is displayed.			Pass	
38	Re assign roles to one of the applicants.	Reassigned roles successfully.			Pass	
39	Click on the Check Application Status link on the left navigation bar.	All the 2007 submissions for this duns number are listed down.			Pass	
40	Register a new agency user.	A new agency user is registered as expected.			Pass	
41	Register a new individual applicant.	A new individual applicant is registered as expected.			Pass	
42	Register a new organization applicant under 000000000 duns.	A new applicant is registered under organization duns.			Pass	
43	Make sure that the newly registered users have the correct permissions.	Newly registered users are logged in successfully and have the correct permissions.			Pass	
44	Check the forgot my user name and forgot my password links for agency user.	Forgot my user name and Forgot my password links are working as expected for agency user.			Pass	
45	Check the Forgot my user name and Forgot my password link for applicant.	Forgot my user name and Forgot my password links are working as expected for applicants.			Pass	
46	Send an email synopsis and make sure that it is published successfully.	Email synopsis is published successfully.			Pass	
47	Run the RSS script to make sure that newly created opportunities appear in the RSS links.	RSS Script is ran and newly created/modified opportunities are displayed in the RSS links as expected.			Pass	
48	Start the Tom cat server after updating the properties file to the right environment.	Tom cat server is up and running.			Pass	

49	"Navigate to the applicant S2S screen for Referential Implementation http://localhost:8080/app-s2s-client/pages/index.jsp"	User is in the applicant S2S index page.	Pass	
50	Navigate to the Get Opportunity List Web service and search for opportunity number and CFDA using the Get Opportunities web service call.	Results are as expected.	Pass	
51	Navigate to the Get Opportunity List Web service and search for competition id and CFDA using the Get Opportunities with Info web service call.	Results are as expected.	Pass	
52	Navigate to the Submit Application web service and submit an application XML.	XML is validated.	Pass	
53	Navigate to the Get Application List and try combinations of Status, opportunity number, tracking number and CFDA number.	Results are as expected.	Pass	
54	Navigate to the Get App Status Detail web service call and Get Detailed status for a tracking number under this certificate.	Detailed Status of the tracking number is displayed.	Pass	
55	Update the properties file to the right environment.	Properties file updated.	Pass	
56	Navigate to the C:\GrantsGovS2S_portable\AgencyClient\scripts folder from command prompt.	User is in the C:\GrantsGovS2S_portable\AgencyClient\scripts folder.	Pass	
57	"Execute the following command :-runtest.bat GetApplicationListTest"	Application List is displayed for both 2006 and 2007 submissions for this agency.	Pass	
58	"Execute the following command :-runtest.bat GetApplicationTest [GRANTxxxxxxx]"	An application for this tracking number should be downloaded to C:\GrantsGovS2S_portable\TEMP folder.	Pass	
59	"Execute the following command :-runtest.bat GetApplicationZipTest [GRANTxxxxxxx]"	An application zip for this tracking number should be downloaded to C:\GrantsGovS2S_portable\TEMP folder.	Pass	
60	"Execute the following command :-runtest.bat ConfirmApplicationDeliveryTest [GRANTxxxxxxx]"	Database - TSTATUS table is updated to Received by Agency for this submission.	Pass	
61	"Execute the following command :-runtest.bat AssignAgencyTrackingNumTest [GRANTxxxxxxx] [xxxxxxx]"	Database - TSTATUS table is updated to Agency Tracking Number Assigned for this submission.	Pass	
62	"Execute the following command :-runtest.bat SaveAdobeOpportunityTest [C:/path/to/myOpportunityXml.xml]"	A synopsis is created under this agency.	Pass	
63	"Execute the following command :-runtest.bat DeleteAdobeOpportunityTest [OPPORTUNITY NUMBER] [AGENCY ID IN OPPORTUNITY XML]"	Opportunity is deleted for this agency.	Pass	
64	"Execute the following command :-runtest.bat DeleteAdobeSynopsisTest [OPPORTUNITY NUMBER] [AGENCY ID IN OPPORTUNITY XML]"	Synopsis is deleted for this agency.	Pass	

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===== Requirements =====

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**REGRESSION****RID Requirement**

- 1: User Must establish their profile in the system
- 2: 1st Agencies being registered with Grants.gov (which will be performed by Grants.gov system administrator), and designate a super user(s).
- 3: The agency's "super user" to provide the rest of the relevant information to Grants.gov and assign authority to other individuals within the agency.
- 5: Agency/Sub-Agency Profile Management
- 6: The Grants.gov system shall permit designated Agency/Sub-Agency super users to maintain the agency profile
- 7: Agency/sub-agency users shall be able add and update the following information: Agency/Sub-agency Name
- 8: Agency/sub-agency users shall be able add and update the following information:  
Agency/sub-agency code (e.g. HHS or CDS) used for <TBD-001>
- 10: Agency/sub-agency users shall be able add and update the following information:  
Agency/sub-agency point of contact information to be used by Grants.gov project office in communicating with agency/sub-agency super users:  
Contact name
- 11: Agency/sub-agency users shall be able add and update the following information:  
Agency/sub-agency point of contact information to be used by Grants.gov project office in communicating with agency/sub-agency super users:  
Contact postal address
- 12: Agency/sub-agency users shall be able add and update the following information:  
Agency/sub-agency point of contact information to be used by Grants.gov project office in communicating with agency/sub-agency super users:  
Contact phone number
- 13: Agency/sub-agency users shall be able add and update the following information:  
Agency/sub-agency point of contact information to be used by Grants.gov project office in communicating with agency/sub-agency super users:  
Contact email address
- 15: Agency/sub-agency users shall be able add and update the following information:  
Notification method for grant application delivery.  
Notify as each application is received.  
Notify when first new application is added to an empty download queue.  
Never notify
- 16: Agency and sub-agency super users shall be able to add new sub-agencies
- 17: Super users shall be able to create sub-agencies that are subordinate to their own agency/sub-agency
- 23: Agency/sub-agency super users shall be able to assign privileges of users within any sub-agency currently subordinate to their own agency/subagency.
- 24: Agency/sub-agency users shall be able to assign the following privileges to users within their agency/sub-agency:  
Super user – allows users to create new agencies/sub-agencies, manage agency/sub-agency profiles and manage user privileges

- 29:** Authorized users shall have the ability to select from among the following forms in creating grant application packages templates:  
SF-424A  
SF-424B  
SF-424C  
SF-424D  
Agency Specific Data Sets
- 34:** The authorized user shall have the ability to designate attachments as:  
  
Required – the user must supply the designated attachment data
- 35:** The authorized user shall have the ability to designate attachments as:  
  
Optional – the user choose not to supply the designated attachment data
- 36:** Package templates shall support the inclusion of attachments as:  
  
Unformatted text included within a field on an attachment field
- 43:** Users shall have the ability to add or remove forms and attachments from an existing template.
- 44:** Users shall have the ability to redefine forms or attachments as mandatory or optional.
- 49:** UPDATED -- NEW TEXT IS:  
From the 2007 UI, Authorized users shall have the ability to create and publish electronic opportunities in Adobe format.  
  
Pure Edge opportunities should be added/modified/deleted form 2006 system via the 2006 link  
  
UPDATED -- ORIGINAL TEXT WAS:  
Authorized users shall have the ability to create and publish electronic opportunities.
- 50:** UPDATED -- NEW TEXT IS:  
To create an electronic 2007 grant opportunity, the user shall identify the following:  
A unique grant funding opportunity number in 2007 and 2006.  
If creating a 2006 Opportunity the system Shall NOT be able to ensure this is unique across 2006 & 2007 systems.  
  
UPDATED -- ORIGINAL TEXT WAS:  
To create an electronic grant opportunity, the user shall identify the following:  
A unique grant funding opportunity number
- 51:** UPDATED -- NEW TEXT IS:  
From 2007 UI A unique grant funding opportunity number shall exist for 2007 & 2006 ONLY  
  
UPDATED -- ORIGINAL TEXT WAS:  
A unique grant funding opportunity number
- 52:** For opportunities for which synopses have been published to the FedGrants system, this number shall match the opportunity number supplied for the FedGrants system
- 76:** The system shall permit authorized users to obtain a list of applications that are queued for download by their agency/sub-agency via a User link" List all submissions". This listing shall identify the following information for each queued package:

- 77:** Funding Opportunity Number
- 78:** Funding Opportunity Name
- 79:** Submitter organization name
- 108:** The system shall allow users to locate and download applications that have been previously downloaded by the agency.
- 109:** The system shall provide a mechanism for the agencies enter Agency Tracking Number for each application package.
- 111:** The system shall restrict access to privileged functions and sensitive data.
- 112:** The system shall identify and authenticate users prior to performing actions on their behalf. This requirement applies to:  
Human (i.e., interactive) users  
  
External information systems (e.g., applicant or agency computer systems)
- 223:** Applicants must be registered with an External Credential Provider (ECP) for authentication purposes. ECPs may include a wide range of entities including commercial certificate authorities, commercial Internet Service Providers (e.g., AOL, MSN, etc.) or federal systems that choose to continue to perform credential management functions. Applicants' credentials will be used to authenticate the identity of the AOR during application package submission. The credentials will be validated by the e-Authentication Gateway that in turn allows Grants.gov to validate the submitters' identity with BPN/CCR
- 257:** The applicants shall also be allowed to view the content of each attachment file and deselect it if desired.
- 258:** The system shall allow the applicants to view and print their submitted application packages in Adobe format.
- 259:** The applicants will use their Adobe viewer to view and print the Adobe application forms, however, they will need specific software such as Adobe Acrobat or MS Office to view and print attachments in those formats.
- 260:** The system shall provide a "submit" button on the application package that will allow the applicant to upload the application package to Grants.gov.
- 261:** The system shall not permit packages that are incomplete, that do not meet the business requirements, or that include syntax errors to be submitted.
- 268:** UPDATED -- NEW TEXT IS:  
The system shall prompt the applicant for log in credentials (e.g., User ID (not case sensitive) & Password (case sensitive)) prior to accepting any submission.  
  
UPDATED -- ORIGINAL TEXT WAS:  
The system shall prompt the applicant for log in credentials (e.g., User ID & Password) prior to accepting any submission.
- 269:** In the production system, the applicants' credentials will be authenticated via the e-Authentication Gateway. The Grants.gov system shall implement an interface to this system to perform user identification authentication.
- 302:** The user must install an Internet Explorer add on (Adobe) to View, complete and submit the form.
- 365:** Provide capability to search by one or more Sub-Agency name. Provide the capability of specifying the Sub-Agency upon selection of Agency. The system shall display list of sub-agencies for all agencies selected by user. In other words, if 3 agencies were selected by the user, the system shall display list of all of the sub agencies for all three of the selected agencies.  
The first selection in the sub agency selection shall be "All Sub Agencies" and it shall function exactly the same as if the sub agency link had not been clicked. If no sub agencies are selected, the search criteria shall be based on the agency selection. If one or more sub agencies are selected, the agency selections shall not be used and only the selected sub agencies shall be included in the search criteria.

- 366:** Provide capability to browse list of grant opportunities by Category.
- 367:** UPDATED -- NEW TEXT IS:  
Provide capability to browse list of grant opportunities by Agency. Only Display Federal Agencies and Approved listing which is set by the PMO.
- UPDATED -- ORIGINAL TEXT WAS:  
Provide capability to browse list of grant opportunities by Agency.
- 380:** Display Opportunity Title on the Opportunity Details page to the left of the agency image  
The Opportunity Title must be to the left of the agency image on the top of the page.
- 381:** Allow user to switch between “Synopsis”, “Full Announcement” and “How to Apply” views.
- 382:** Present list of Application Packages on the “How to Apply” view.  
If there are one or more application packages defined for an opportunity, all of these application packages must be displayed.

## Appendix D: Oracle query optimization

This is a summary of the technical DB changes followed by a technical description. During the high load on DBS5 database server, we found the following underlined query, taking longer time and causing the load average to spike.

```
SELECT PROCESSID  
FROM  
TSTATUS WHERE status ='FIFReceiving' and ROWNUM = 1 FOR UPDATE NOWAIT  
SKIP  
LOCKED
```

Further analysis on this query revealed that the query being executed from a pl/sql package. In this package, SQL Statements are built, executed using DYNAMIC SQL, along with full table scan on TSTATUS table. Dynamic nature of query, resulted recursive calls(multiple internal SQL statements) and FULL TABLE SCAN.

To address the issue, we have optimized the package, to avoid recursive calls, and full table scans. Existing Functionality was:

*Note : Where clause is being passed from the application and query string is getting build and executed.*

```
query_str :=  
    'SELECT PROCESSID FROM TSTATUS WHERE '  
    || whereclause || ' ROWNUM = 1 FOR UPDATE NOWAIT SKIP LOCKED';  
    --|| ' ROWNUM = 1 FOR UPDATE NOWAIT SKIP LOCKED  
    OPEN st_cursor FOR query_str
```

New Functionality: Service code is passed to the function from application:

```
case v_service_code when 'RECEIPT' then v_service:='Receiving';  
    when 'WORKFLOW' then v_service:='Processing';  
    when 'S2SRECEIPT' then v_service:='S2SReceiving';  
    when 'REJECTION' then v_service:='Rejecting';  
    when 'ACCEPTANCE' then v_service:='Accepting';  
    when 'FORMINFORM' then v_service:='FIFReceiving';  
    else v_service:='';  
end case;
```

```
SELECT /*+ index(tstatus,STATUS_IDX) */ PROCESSID into app_id FROM  
egranadmin.TSTATUS WHERE STATUS = v_service and ROWNUM < 2  
FOR UPDATE NOWAIT SKIP LOCKED;
```

# 1) Existing code is using DYNAMIC SQL, which is causing lot of CPU load.

```
SELECT PROCESSID
```

```
FROM
```

```
TSTATUS WHERE status ='FIFReceiving' and ROWNUM = 1 FOR UPDATE NOWAIT
SKIP
```

```
LOCKED
```

```
call count cpu elapsed disk query current rows
```

```
-----
```

call	count	cpu	elapsed	disk	query	current	rows
Parse	1	0.01	0.00	0	0	0	0
Execute	1	0.00	0.00	0	0	0	0
Fetch	1	1.52	1.49	3992	20968	0	0
<b>total</b>	<b>3</b>	<b>1.53</b>	<b>1.50</b>	<b>3992</b>	<b>20968</b>	<b>0</b>	<b>0</b>

```
-----
```

```
-----
```

```
-----
```

Misses in library cache during parse: 1

Optimizer goal: CHOOSE

Parsing user id: 25 (EGRANTSADMIN) (recursive depth: 1)

Rows Row Source Operation

```
-----
```

0 FOR UPDATE

0 COUNT STOPKEY

0 TABLE ACCESS FULL TSTATUS

Rows Execution Plan

```
-----
```

```

0 SELECT STATEMENT GOAL: CHOOSE
0 FOR UPDATE
0 COUNT (STOPKEY)
0 TABLE ACCESS GOAL: ANALYZED (FULL) OF 'TSTATUS'
  
```

Elapsed times include waiting on following events:

Event waited on	Times	Max. Wait	Total Waited
-----	Waited	-----	-----
db file sequential read	2920	0.00	0.12
db file scattered read	506	0.00	0.03

### Old functionality Text:

```
create or replace PACKAGE          DBA_OLDPKG_TEMP AS
```

```
/******
```

```
*
```

```
NAME:   DBA_OLDPKG_TEMP
```

```
PURPOSE:
```

```
REVISIONS:
```

```
Ver      Date      Author      Description
```

```
-----  -
```

1.0	12/6/2006		1. Created this package.
-----	-----------	--	--------------------------

```
*****
```

```
FUNCTION GET_NEXT_APP_ID(WhereClause varchar2 ) RETURN SYS_REFCURSOR;
```

```
FUNCTION GET_NEXT_APP_ID_TEST(SystemId IN varchar,ServiceId IN
varchar,WhereClause varchar2 ) RETURN VARCHAR;
```

```
END DBA_OLDPKG_TEMP;
```

```
create or replace PACKAGE BODY          DBA_OLDPKG_TEMP
AS
    FUNCTION get_next_app_id (whereclause VARCHAR2)
        RETURN sys_refcursor
    AS
        st_cursor      sys_refcursor;
        st_cursor_out  sys_refcursor;
        query_str      VARCHAR2 (4000);
        app_id         VARCHAR2 (4000);
    BEGIN
        -- GET THE WHERE CLAUSE FROM THE PARAMETERS TABLE ??
        query_str :=
            'SELECT PROCESSID FROM TSTATUS WHERE '
            || whereclause || ' ROWNUM = 1 FOR UPDATE NOWAIT SKIP LOCKED';
        --|| ' ROWNUM = 1 FOR UPDATE NOWAIT SKIP LOCKED';
        DBMS_OUTPUT.put_line ('STEP 11 =' || query_str);
    BEGIN
        -- RETRIEVE AND LOCK THE PROCESS ID
        --EXECUTE IMMEDIATE QUERY_STR INTO st_cursor;
        OPEN st_cursor FOR query_str;
        FETCH st_cursor
            INTO app_id;
        DBMS_OUTPUT.put_line ('STEP 1 APP_ID=');
```

```
--
UPDATE tstatus
  SET status = 'IN PROCESS'
  WHERE processid = app_id;
rollback;
EXCEPTION
  WHEN NO_DATA_FOUND
  THEN
    app_id := 0;
  WHEN OTHERS
  THEN
    DBMS_OUTPUT.put_line ('Error');
    DBMS_OUTPUT.put_line (SQLERRM);
    app_id := -1;
END;

-- THIS WILL ENSURE THAT THE SESSION IS NOT LOCKING ANY ROWS
ROLLBACK;
OPEN st_cursor_out FOR
SELECT processid
FROM tstatus
WHERE processid = app_id;
  RETURN st_cursor_out;
EXCEPTION                                -- CAPURE ANY UNKNOWN ERRORS
  WHEN OTHERS
  THEN
    app_id := -2;
  RETURN st_cursor_out;
END;

FUNCTION get_next_app_id_test (
systemid  IN VARCHAR,
serviceid IN VARCHAR,
whereclause  VARCHAR2
)
RETURN VARCHAR
AS
st_cursor sys_refcursor;
query_str VARCHAR2 (4000);
app_id VARCHAR2 (4000);
BEGIN
-- GET THE WHERE CLAUSE FROM THE PARAMETERS TABLE ??
query_str :=
'SELECT PROCESSID FROM TSTATUS WHERE '

|| whereclause
```

```
|| 'SYSTEM_ID ='
|| systemid
|| "" and service_code ="
|| serviceid
|| "" and LOCKROW(ROWID) = 1 AND ROWNUM = 1 FOR UPDATE NOWAIT SKIP
LOCKED';
DBMS_OUTPUT.put_line ('STEP 11 =' || query_str);
BEGIN
-- RETRIEVE AND LOCK THE PROCESS ID
--EXECUTE IMMEDIATE QUERY_STR INTO st_cursor;
OPEN st_cursor FOR query_str;
    FETCH st_cursor
    INTO app_id;
DBMS_OUTPUT.put_line ('STEP 1 APP_ID=');

--
UPDATE tstatus
SET status = 'IN PROCESS'
WHERE processid = app_id;

    rollback;
EXCEPTION
WHEN NO_DATA_FOUND
THEN
app_id := 0;
WHEN OTHERS
THEN
DBMS_OUTPUT.put_line ('Error');
DBMS_OUTPUT.put_line (SQLERRM);
app_id := -1;
END;
-- THIS WILL ENSURE THAT THE SESSION IS NOT LOCKING ANY ROWS
ROLLBACK;
RETURN app_id;
EXCEPTION                                -- CAPURE ANY UNKNOWN ERRORS
WHEN OTHERS
THEN
app_id := -2;
RETURN app_id;
END;
END;
```

## Old Code Run Times:

```
BEGIN :cur1 := DBA_OLDPKG_TEMP.get_next_app_id('status = "FIFReceiving" and')
; END;
```

call	count	cpu	elapsed	disk	query	current	rows
Parse	1	0.00	0.00	0	0	0	0
Execute	1	1.64	1.62	3993	21178	0	1
Fetch	0	0.00	0.00	0	0	0	0
<b>total</b>	<b>2</b>	<b>1.64</b>	<b>1.62</b>	<b>3993</b>	<b>21178</b>	<b>0</b>	<b>1</b>

Misses in library cache during parse: 1  
 Optimizer goal: CHOOSE  
 Parsing user id: 25 (EGRANTSADMIN)

Elapsed times include waiting on following events:

Event waited on	Times	Max. Wait	Total Wait
-----	Waited	-----	-----

SQL*Net message to client	1	0.00	0.00
SQL*Net message from client	1	0.00	0.00

\*\*\*\*\*

```
SELECT PROCESSID
FROM
TSTATUS WHERE status = 'FIFReceiving' and ROWNUM = 1 FOR UPDATE NOWAIT SKIP
LOCKED
```

call	count	cpu	elapsed	disk	query	current	rows
Parse	1	0.01	0.00	0	0	0	0
Execute	1	0.00	0.00	0	0	0	0
Fetch	1	1.52	1.49	3992	20968	0	0
<b>total</b>	<b>3</b>	<b>1.53</b>	<b>1.50</b>	<b>3992</b>	<b>20968</b>	<b>0</b>	<b>0</b>

Misses in library cache during parse: 1  
 Optimizer goal: CHOOSE  
 Parsing user id: 25 (EGRANTSADMIN) (recursive depth: 1)

Rows	Row Source Operation
0	FOR UPDATE
0	COUNT STOPKEY
0	TABLE ACCESS FULL TSTATUS

Rows	Execution Plan
0	SELECT STATEMENT GOAL: CHOOSE
0	FOR UPDATE
0	COUNT (STOPKEY)
0	TABLE ACCESS GOAL: ANALYZED (FULL) OF 'TSTATUS'

Elapsed times include waiting on following events:

Event waited on	Times	Max. Wait	Total Wait
	Waited		
db file sequential read	2920	0.00	0.12
db file scattered read	506	0.00	0.03

\*\*\*\*\*

**New Code:**

```
CREATE OR REPLACE FUNCTION GET_NEXT_APP_ID_KIRAN(v_service_code
varchar2)
```

```
return varchar2
```

```
as
```

```
app_id      VARCHAR2(4000);
```

```
v_service   VARCHAR2(100);
```

```
BEGIN
```

```
case v_service_code when 'RECEIPT' then v_service:='Receiving';
```

```
    when 'WORKFLOW' then v_service:='Processing';
```

```
    when 'S2SRECEIPT' then v_service:='S2SReceiving';
```

```
    when 'REJECTION' then v_service:='Rejecting';
```

```
    when 'ACCEPTANCE' then v_service:='Accepting';
```

```
    when 'FORMINFORM' then v_service:='FIFReceiving';
```

```
    else v_service:='';
```

```
end case;
```

```
BEGIN
```

```
SELECT /*+ index(tstatus,STATUS_IDX) */ PROCESSID into app_id FROM
egrantsadmin.TSTATUS WHERE STATUS = v_service and ROWNUM < 2
```

```
FOR UPDATE NOWAIT SKIP LOCKED;
```

```
UPDATE egrantsadmin.tstatus
```

```
    SET status = 'IN PROCESS'
```

```
    WHERE processid = app_id;
```

```
ROLLBACK;
```

```
RETURN APP_ID;
```

## EXCEPTION

WHEN NO\_DATA\_FOUND

THEN

app\_id := 0;

return app\_id;

WHEN OTHERS

THEN

app\_id := -1;

return app\_id;

END;

END;

**New Code Run Times:**

```
[oracle@dbs5]/app/oracle/admin/grants07/udump$ cat newfunc_stats.txt
TKPROF: Release 9.2.0.8.0 - Production on Wed Jun 17 23:19:43 2009
```

Copyright (c) 1982, 2002, Oracle Corporation. All rights reserved.

Trace file: grants07\_ora\_15217\_DBA\_NEWFUNC.trc

Sort options: default

\*\*\*\*\*

count = number of times OCI procedure was executed

cpu = cpu time in seconds executing

elapsed = elapsed time in seconds executing

disk = number of physical reads of buffers from disk

query = number of buffers gotten for consistent read

current = number of buffers gotten in current mode (usually for update)

rows = number of rows processed by the fetch or execute call

\*\*\*\*\*

alter session set events '10046 trace name context forever, level 12'

call	count	cpu	elapsed	disk	query	current	rows
Parse	1	0.00	0.00	0	0	0	0
Execute	2	0.00	0.00	0	0	0	0
Fetch	0	0.00	0.00	0	0	0	0
<b>total</b>	<b>3</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Misses in library cache during parse: 0

Optimizer goal: CHOOSE

Parsing user id: 25 (EGRANTSADMIN)

Elapsed times include waiting on following events:

Event waited on	Times Waited	Max. Wait	Total Waited
SQL*Net message to client	1	0.00	0.00
SQL*Net message from client	1	0.00	0.00

\*\*\*\*\*

ALTER session SET timed\_statistics = TRUE

call	count	cpu	elapsed	disk	query	current	rows
Parse	1	0.00	0.00	0	0	0	0
Execute	1	0.01	0.00	0	0	0	0
Fetch	0	0.00	0.00	0	0	0	0
<b>total</b>	<b>2</b>	<b>0.01</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Misses in library cache during parse: 0

Optimizer goal: CHOOSE

Parsing user id: 25 (EGRANTSADMIN)

Elapsed times include waiting on following events:

Event waited on	Times	Max. Wait	Total Waited
-----	Waited	-----	-----
SQL*Net message to client	1	0.00	0.00
SQL*Net message from client	1	30.78	30.78

\*\*\*\*\*

BEGIN :cur1 := GET\_NEXT\_APP\_ID\_KIRAN('FORMINFORM'); END;

call	count	cpu	elapsed	disk	query	current	rows
-----	-----	-----	-----	-----	-----	-----	-----
Parse	1	0.00	0.00	0	0	0	0
Execute	1	0.03	0.02	0	4	0	1
Fetch	0	0.00	0.00	0	0	0	0
total	2	0.03	0.02	0	4	0	1

Misses in library cache during parse: 1

Optimizer goal: CHOOSE

Parsing user id: 25 (EGRANTSADMIN)

Elapsed times include waiting on following events:

Event waited on	Times	Max. Wait	Total Waited
-----	Waited	-----	-----
SQL*Net message to client	1	0.00	0.00
SQL*Net message from client	1	1.14	1.14

\*\*\*\*\*

```

SELECT /*+ index(tstatus,STATUS_IDX) */ PROCESSID
FROM
  EGRANTSADMIN.TSTATUS WHERE STATUS = :B1 AND ROWNUM < 2 FOR UPDATE
NOWAIT

SKIP LOCKED
  
```

call	count	cpu	elapsed	disk	query	current	rows
Parse	1	0.00	0.00	0	0	0	0
Execute	1	0.01	0.00	0	0	0	0
Fetch	1	0.00	0.00	0	4	0	0
total	3	0.01	0.00	0	4	0	0

Misses in library cache during parse: 1

Optimizer goal: CHOOSE

Parsing user id: 25 (EGRANTSADMIN) (recursive depth: 1)

Rows Execution Plan

```

-----
0 SELECT STATEMENT GOAL: CHOOSE
0 FOR UPDATE
0 COUNT (STOPKEY)
0 TABLE ACCESS GOAL: ANALYZED (BY INDEX ROWID) OF 'TSTATUS'
0 INDEX GOAL: ANALYZED (RANGE SCAN) OF 'STATUS_IDX'
  (NON-UNIQUE)
  
```

\*\*\*\*\*

alter session set events '10046 trace name context off'

call	count	cpu	elapsed	disk	query	current	rows
Parse	1	0.00	0.00	0	0	0	0
Execute	1	0.00	0.00	0	0	0	0
Fetch	0	0.00	0.00	0	0	0	0
total	2	0.00	0.00	0	0	0	0

Misses in library cache during parse: 0

Optimizer goal: CHOOSE

Parsing user id: 25 (EGRANTSADMIN)

\*\*\*\*\*

OVERALL TOTALS FOR ALL NON-RECURSIVE STATEMENTS

call	count	cpu	elapsed	disk	query	current	rows
Parse	4	0.00	0.00	0	0	0	0
Execute	5	0.04	0.03	0	4	0	1
Fetch	0	0.00	0.00	0	0	0	0
total	9	0.04	0.03	0	4	0	1

Misses in library cache during parse: 1

Elapsed times include waiting on following events:

Event waited on	Times	Max. Wait	Total Waited
		Waited	
SQL*Net message to client	3	0.00	0.00
SQL*Net message from client	3	30.78	31.93

## OVERALL TOTALS FOR ALL RECURSIVE STATEMENTS

call	count	cpu	elapsed	disk	query	current	rows
Parse	1	0.00	0.00	0	0	0	0
Execute	1	0.01	0.00	0	0	0	0
Fetch	1	0.00	0.00	0	4	0	0
total	3	0.01	0.00	0	4	0	0

Misses in library cache during parse: 1  
 5 user SQL statements in session.  
 0 internal SQL statements in session.  
 5 SQL statements in session.  
 1 statement EXPLAINed in this session.

\*\*\*\*\*

Trace file: grants07\_ora\_15217\_DBA\_NEWFUNC.trc

Trace file compatibility: 9.02.00

Sort options: default

- 0 session in tracefile.
- 5 user SQL statements in trace file.
- 0 internal SQL statements in trace file.
- 5 SQL statements in trace file.
- 5 unique SQL statements in trace file.
- 1 SQL statements EXPLAINed using schema:

EGRANTSADMIN.prof\$plan\_table

Default table was used.

Table was created.

Table was dropped.

53 lines in trace file.  
[oracle@dbs5]/app/oracle/admin/grants07/udump\$

END OF DOCUMENT