Use Case A: Hot Fix

1. Hot Fix Use Case Description Information

Hot Fixes from Some Company Software will be created based upon customer feedback, database requirements, application needs and unique application to database uses. Hot Fixes will be incorporated into the next Patch, and ultimately rolled into the Trunk.

1.1. **Name:**

Hot Fixes are a means of correcting customer specific issues discovered when running customer applications on ACS. Often these unique circumstances are due to Sybase functionality in the application.

1.2. **Goal:**

This Use Case will attempt to describe and establish the business practice of how and why a Hot Fix will be coded, implemented, and maintained. The key to the ultimate success is that the code rolls back into trunk without breaking the other customers who use the modified function in their code for their applications.

1.3. **Hot Fix Team Leader/Members:**

The Maintenance Team Lead is responsible for ensuring that each Hot Fix goes through the following before being coded:

   1.3.1. Business Use Case has been verified as a "normal" course of business.
   1.3.2. Receives APAR issues from CERTIFIED RESELLER; Field Reps; or Report comes Internally from Some Company Support/Testing or another group.
   1.3.3. Matches defects with known issues relieving redundancy

Maintenance Team members are responsible for:

   1.3.4. Research defects to eliminate redundancy
   1.3.5. Document exact circumstances for fix
   1.3.6. Code the fix
   1.3.7. Document fix
   1.3.8. Send fix to Testing

1.4. **Pre-condition:**

1.4.1. Field Rep, or CERTIFIED RESELLER Support must provide a reproducible case.

1.4.2. Customers must be willing to allow Some Company Software access to application code in order to solve the issue.

1.4.3. Before Hot Fixes are coded, tested or implemented the defect must flow through the following:

1.4.3.1. The APAR form must be filled in completely with the description section filled in with detail.

1.4.3.2. The customer environment must be replicated, and the defect reproduced for development.

1.4.3.3. Testing must have exact processing task that failed in order to create regression testing after development.

1.4.3.4. Assignment of the defect to the appropriate team.

See the **Third-Tier Support Use Case** in the *Use Cases for External Applications & Platforms ACS Sybase to DB2* document for more information.

1.5. **Post-condition:**

1.5.1. All customer applications function as expected, including applications not tested in this case.

1.5.2. Testing will ensure that this fix does not create an impediment for other customers once it is rolled into the core (trunk) of the code through regression testing.

1.6. **Constraints/Issues/Risks:**

In some circumstances we will have to ask for access to the customer's code line in order to fix the issue. This condition will usually be accompanied with a Statement of Work (SOW) contract. In addition to that challenge, some of the customer applications could have been purchased – therefore we will have to interact with that vendor to fix the problem.

Those that were built in house would normally be accessible, however, we have to account for the recent downsizing and accept the risk that knowledge is lost when developers leave the company.

There are several known issues with extraneous functions that are rarely used, however, this does not mean that we can't fix the issue – it means that we have to be prepared to explain why we can't fix the issue with the current information. If the application is important enough to the customer, they might provide the code.

1.7.   Trigger Event(s):

An APAR comes from the Field Rep or through Customer Support. Occasionally, there will be an internal APAR, however, these should always be followed up with a report from the Field Rep confirming the need for code review.

1.8.   Primary Actor – Some Company Support:

The key to the success of the Hot Fix is the information coming from the APAR and or the Field Service Representative. Testing is going to make several fields mandatory on the Bugzilla form, however, additional comments can make or break reproduction of the error.

1.9.   Secondary Actor – CERTIFIED RESELLER Customer Support:

CERTIFIED RESELLER Customer Support, aka Field Service Representatives, will be the source of our APAR tickets. The attention paid to the information given in Bugzilla is key to the success of the effort.

1.10.   Secondary Actor – Some Company Maintenance Development:

The key to success is that the code rolls back into trunk without breaking other customers' applications that use the now modified function in their code.
Therefore, whoever or whichever team is responsible for the coding, research and testing to insure that the Hot Fix can be rolled into Truck is our secondary actor, but also our star player.

1.11.   Secondary Actor – Some Company Management & Accounting

In cases where customers experience an application issue that they cannot fix, and the issue is not an ACS or migration issue, customers may ask either CERTIFIED RESELLER or Some Company Software to help. Some Company Management and CERTIFIED RESELLER will negotiate the Statement of Work, and Some Company Accounting will manage the invoicing.

2. Use Case Pathway Names:

The exception paths are important in this use case in that they are documenting expected business processes. These business processes will change with time, and therefore the pathways in this use case should change as well.

2.1. **Primary Path (Happy Path):**
This is the most common path, and the one that can be resolved 70% of the time.

- Issue comes to Testing from Field Rep in a Request for Change (RFC).
- Issue is a known issue and the solution is already available in a Hot Fix.
- Passes Regression testing.
- Hot fix is installed.
- All customer applications run as expected.

2.2. **New Issue - Hot Fix Coded Path:**

- Issue comes to Some Company Support from CERTIFIED RESELLER Customer Support/Field Rep.
- Issue is not a known issue, but has been replicated by Some Company Support.
- Suspected function for causing the issue has been identified.
- Testing of switches shows that the application can work successfully with a code fix to ACS.
- Hot Fix is coded.
- Passes Regression testing.
- Hot Fix is installed.
- No other applications break as a result of the fix.
- Hot Fix is available for distribution.

2.3. **New Issue no Replication Path:**

- Issue comes to Some Company Support from CERTIFIED RESELLER Customer Support/Field Rep.
- Issue is not a known issue, has been replicated by CERTIFIED RESELLER Customer Support, but Some Company Support could not replicate.
- Suspected function for causing the issue has been identified as a possible issue due to similar circumstances with another customer.
- Testing of switches shows that the application can work successfully with a code fix to ACS.
- No regression testing can be performed since the error cannot be duplicated.
- One Off Fix is coded. Code can be One-Off fixed, but cannot be added to the Branch or back to the Trunk.

- No other applications break as a result of the fix.
- One Off *is not* available for distribution.

2.4. New Issue - Hot Fix Not Coded

- Issue comes to Some Company Support from CERTIFIED RESELLER Customer Support/Field Rep.
- Issue is not a known issue, but has been replicated by Some Company Support.
- Suspected function for causing the issue shows that the application can work successfully with normal operations.
- No Code is written, ticket closed as a customer issue.
- Some Company Support documents reasons and sends the issue back to CERTIFIED RESELLER Customer Support in the form of a Refusal of Responsibility (ROR) form.

2.5. Could Not Replicate Path:

- Issue comes to Some Company Support from CERTIFIED RESELLER Customer Support/Field Rep.
- Issue is not a known issue, has been replicated by CERTIFIED RESELLER Customer Support, but Some Company Support could not replicate.
- Preliminary investigation by testing determines that the issue is not clearly defined as an ACS issue.
- Testing documents reasons and sends the issue back to CERTIFIED RESELLER Customer Support in the form of a Refusal of Responsibility (ROR) form.

2.6. Management Directive Path:

- Issue comes to Testing from Field Rep. in the form of a management directed fix Statement of Work (SOW).
- Issue is not a known issue, but Testing accepts issue due to mandate.
- Development lead accepts SOW, and offers a time estimate for the effort.
- Suspected function for causing the issue has been identified as a possible issue.
- Testing shows that the application can work successfully with a code fix to ACS.
- One Off Fix is then coded
- Passes Regression testing.
- One Off Fix is installed.
- No other customer applications break as a result of the fix.
- Customer signs off on the fix and accepts the invoice.
- Some Company Accounting manages payment.
- Maintenance Team tests fix for use in Patches and Versions.
- Part of the Fix is available for distribution as an addition to the Fix Pack.