SONSYM Oracle Memory Investigation – Useful Information

General System Information

* To open a linux terminal:
  + Alt->Right Click->New terminal (on any workstation display)
  + Right Click->New terminal (on any workstation screen where no display is running)
* To open SONSYM browser:
  + Open new linux terminal
    - Run this command:
      * launchBrowser –p SYSVUE
      * This will pop up a Firefox browser, with the Sonsym view open (tab name = HARDWARE)
  + OR from a Workstation display, select “Help->Sonar Sys Mgmt” from top menu
    - This will pop up the Firefox browser directly
* To quick reboot (software restart) a server from the SONSYM HARDWARE display:
  + Right Click the server -> Quick Reboot
  + Confirm “Execute” on the popup confirmation dialog
* To failover SONSYM Primary:
  + Quick Reboot the SONSYM load that has the “P” in the first position on the display
  + Wait for 30-60s for the other SONSYM to take primary (your SONSYM HARDWARE displays will disappear, and then reconnect once the failover completes.

Oracle Information

* Current Oracle Version: 12c (12.1.0.2.0)
* Oracle Location in System
  + Runs with SONSYM (Sonar System Manager) loads
    - 6001a34 and 6006a34
    - I have reserved the use of 6001a34 for us for the next few weeks
  + Server installation: /oracle/app/oracle/…
    - NOTE : ORACLE\_HOME = /oracle/app/oracle/12.1.0/db\_1/
  + Client installation: /usr/lib/oracle/12.1/client/…
* Oracle Login information
  + To log into the Oracle database, do so as the “oracle” user
    - su – oracle
  + We use sqlplus to log into the database:
    - sqlplus sonsym/<password> (Standard SONSYM process user)
    - sqlplus / as sysdba (DBA account)
* To stop/start oracle database on the SONSYM server:
  + Stop: /idp/sonar/ss/scripts/ssipl\_smpwsp\_stoporacle.sh
    - Run as default “idp” user
  + Start: /idp/sonar/ss/scripts/ssipl\_smpwsp\_startoracle.sh
    - Run as default “idp” user

Source Code and Compiling

* Location of SONSYM Source Code:
  + Base repository:
    - **/pcms\_browse/idp/sonar/ss/sonsym/**
  + Individual binaries:
    - ConfigMgr: /pcms\_browse/idp/sonar/ss/sonsym/**RcnfgMgr/src/**
      * Mostly inserts/updates, limited queries
    - ErrorProc: /pcms\_browse/idp/sonar/ss/sonsym/**ErrorProc/src/**
      * Mostly inserts/updates, limited queries
    - EnvMonitor: /pcms\_browse/idp/sonar/ss/sonsym/**EnvMonitor/src/**
      * Only queries, no inserts/updates
      * **Simplest process to see the leak in**
    - StorageMgr: /pcms\_browse/idp/sonar/ss/sonsym/**StorageMgr/src/**
      * Only queries, no inserts/updates
  + General SONSYM and database API code:
    - /pcms\_browse/idp/sonar/ss/sonsym/**local/src/**
* To compile the binaries and/or oracle db wrapper API libraries
  + Create local compile area on IS9 system
    - Log into baseline repo server
      * ssh username@aries
        + You’ll need to use your IS9 classified system password for this.
    - Create a compile directory in your home directory
      * mkdir <compile\_dir>
      * cd <compile\_dir>
    - Create a shadow of the compile structure (run the following inside your compile directory) – FIRST TIME ONLY
      * idp\_shadow
        + At the first “baseline” prompt, enter:

/tangpcms/ti16apb15/dev

* + - * + At the second prompt (structure), enter:

flat

* + - * + At the third prompt, hit ENTER
        + At the fourth prompt (ICP updates), enter:

n

* + - * + Wait for completion (can ignore warnings)
  + Fetch files from repository into your compile directory:
    - Run the following command:
      * idp\_fetch <filename>
    - This will fetch a local copy of the file from /pcms\_browse/ for you to modify
  + Link in makefiles
    - Run the following command:
      * ln –s <full\_path\_to\_makefile> .
    - Example:
      * ln –s /pcms\_browse/idp/sonar/ss/sonsym/EnvMon/src/makefile\_ssssm\_EnvMonitor.mak .
  + Log into compile machine on classified IS9 network
    - ssh username@tang
      * You’ll need to use your IS9 classified system password for this.
    - Tang is the TI16 compile machine for the code in the bay you are investigating
  + Navigate you your compile directory
  + Run the makefile you want to build the binary/library for:
    - make –f <makefile> force >/dev/null
  + NOTES:
    - sonsym/local/src is compiled with the makefile\_sssdb.mak makefile, and creates a library (not a binary)
      * libsssdb\_int\_linux.a
    - After compiling the library, recompile the target process binary in and it will pick up the new library.