ECS Configuration Change Request

1. Originator	2. Log Date:	3. CCR #:	4. Rev:	5. Tel:	6. Rm #:	7. Dept.
Mike Molinet	**02/21/03**	**03-0121**	**-**	301-925-0874	2038A	SE/TS

8. CCR Title: VATC Hardware Upgrade

9. Originator Signature/Date	10. Class	11. Type:	12. Need Date: 02/25/03
Mike Molinet /s/ 2/21/03	**II**	**CCR**	

13. Office Manager Signature/Date	14. Category of Change:	15. Priority: (If "Emergency" fill in Block 27).
John Brewster /s/ 2/21/03	Update ECS Baseline Doc.	Emergency

16. Documentation/Drawings Impacted *(Review and submit checklist):*	17. Schedule Impact:	18. CI(s) Affected:
See Checklist.	High	CSS, DPL, DSS, INS, MSS, OSS, PDS, SSS

19. Release Affected by this Change:	20. Date due to Customer:	21. Estimated Cost:
6A, 6B		None - Under 100K

22. Source Reference: ☐NCR (attach) ☐Action Item ☐Tech Ref. ☐GSFC ☒Other:

23. Problem: (use additional Sheets if necessary)
All VATC SGI Power Challenge platforms and HiPPI network are obsolete.

24. Proposed Solution: (use additional sheets if necessary)
Replace the VATC HiPPI network equipment with GigE technology. Replace current t1acg04 Origin 2000 (EIN 9280) and t1icg03 Challenge L (EIN 1197) SGIs with new t1acg04 Origin 300 (EIN 20597). Migrate current t1acg04 and t1icg03 custom code and databases onto new t1acg04. Replace t1dpg06 Challenge L (EIN 1200) SGI with old t1acg04 Origin 2000, and rename it "t1dig06." Migrate current t1dpg06 custom code and Oracle PDS database to new t1dig06. Ensure that new t1acg04 and t1dig06 are installed with proper COTS, mount points, etc., as specified in attached documentation. Return t1icg03 and t1dpg06 to stock.

25. Alternate Solution: (use additional sheets if necessary)
None

26. Consequences if Change(s) are not approved: (use additional sheets if necessary)
Current SGI Power Challenge platforms are not covered under maintenance, so all failures will be resolved on an as-available basis.

27. Justification for Emergency (If Block 15 is "Emergency"):
Lack of vendor support.

28. Site(s) Affected: ☐EDF ☐PVC ☒VATC ☐EDC ☐ GSFC ☐LaRC ☐NSIDC ☐SMC ☐AK ☐JPL ☐EOC ☐ IDG Test Cell ☐Other

29. Board Comments:	30. Work Assigned To:	31. CCR Closed Date:

32. EDF/SCDV CCB Chair (Sign/Date): **Byron V. Peters /s/ 2/24/03**	**Disposition:** Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS
33. M&O CCB Chair (Sign/Date):	**Disposition:** Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ECS
34. ECS CCB Chair (Sign/Date):	**Disposition:** Approved App/Com. Disapproved Withdraw Fwd/ESDIS ERB Fwd/ESDIS

ADDITIONAL SHEET

CCR #: 03-0121 Rev: - Originator: Mike Molinet

Telephone: 301-925-0874 **Office:** 2038A

Title of Change: VATC Hardware Upgrade

I. On the current ACG and ICG, t1acg04 and t1icg03, dump all databases

II. On the new t1acg04:

(1) Create the following xlv:

VOL /sybasefs1 /dev/dsk/dks9d4l2s0 (16GB) mirrored [FS]

VOL data_dev1 /dev/dsk/dks3d3s0 (12GB) mirrored

VOL log_dev2 /dev/dsk/dks3d3s1 (4GB)) mirrored

VOL data_dev2 /dev/dsk/dks9d4l1s0 (12GB)) mirrored

VOL log_dev1 /dev/dsk/dks9d4l1s1 (4GB)) mirrored

VOL /sybasefs2 /dev/dsk/dks (16GB) Independent [FS]

VOL /sybasefs3 /dev/dsk/dks (16GB) Independent [FS]

VOL /sybdump1 /dev/dsk/dks3d3l4s0 (16GB) Independent [FS]

VOL /sybdump2 /dev/dsk/dks3d3l4s1 (16GB) Independent [FS]

(2) Install the sybase ASE 12.5, and set the configuration parameters:

cpu grace time, 1500
event buffers per engine, 5000
max SQL text monitored, 1024
max memory, 1000000
max online engines, 2
number of devices, 30
number of engines at startup, 2
number of locks, 200000
number of open databases, 40
number of open indexes, 3000
number of open objects, 8000
number of user connections, 1100
number of worker processes, 2
procedure cache size, 150000

(3) Create the following sybase devices:

**** II. Database Devices t1acg04_srvr

Logical Device Name	Size(M)	Physical Device Name	
data_dev1	12000	/dev/rxlv/data_dev1	dsync OFF
data_dev2	12000	/dev/rxlv/data_dev2	dsync OFF
dbccdata	2000	/sybasefs3/devices/dbcclog.dat	dsync OFF
dbcclog	1000	/sybasefs2/devices/dbcclog.dat	dsync OFF
log_dev1	4000	/dev/rxlv/log_dev1	dsync OFF
log_dev2	4000	/dev/rxlv/log_dev2	dsync OFF
master	200	/sybasefs1/devices/master.dat	dsync ON
sybproc	200	/sybasefs1/devices/sybproc.dat	dsync OFF
sybsec	1000	/sybasefs3/devices/sybsec.dat	dsync OFF

tempdb 4000 /sybasefs2/devices/tempdb.dat dsync OFF

(4) Create the following sybase databases:

**** III. Database Allocation t1acg04_srvr

Database Name	Device Name	Device Allocation (M)
DataPool	data_dev1	1300
DataPool	log_dev1	300
1600		
DataPool_TS1	data_dev2	200
DataPool_TS1	log_dev2	80
280		
DataPool_TS2	data_dev2	200
DataPool_TS2	log_dev2	80
DataPool_TS2	data_dev2	100
380		
EcDsScienceDataServer1	data_dev1	100
EcDsScienceDataServer1	data_dev1	50
EcDsScienceDataServer1	log_dev1	50
200		
EcDsScienceDataServer1_TS1	data_dev2	100
EcDsScienceDataServer1_TS1	data_dev2	50
EcDsScienceDataServer1_TS1	log_dev2	50
EcDsScienceDataServer1_TS1	log_dev2	50
250		
EcDsScienceDataServer1_TS2	data_dev2	100
EcDsScienceDataServer1_TS2	data_dev2	50
EcDsScienceDataServer1_TS2	log_dev2	50
200		
EcNbDb	data_dev1	300
EcNbDb	log_dev1	200
500		
EcNbDb_TS1	data_dev2	200
EcNbDb_TS1	log_dev2	80
EcNbDb_TS1	log_dev2	10
EcNbDb_TS1	log_dev2	10
300		
EcNbDb_TS2	data_dev2	200
EcNbDb_TS2	log_dev2	80
280		
EcOmDb	data_dev1	250
EcOmDb	log_dev1	150
400		
EcOmDb_TS1	data_dev2	250
EcOmDb_TS1	log_dev2	150
400		
EcOmDb_TS2	data_dev2	250
EcOmDb_TS2	log_dev2	150
400		
dbccdb	dbccdata	2000
dbccdb	dbcclog	500
2500		
master	master	3
master	master	2

```
master          master          45
master          master          45

95
model           master          2
model           sybprocs        1

3
mss_acct_db         data_dev1           1200
mss_acct_db         log_dev1            600

1800
mss_acct_db_TS1     data_dev2           75
mss_acct_db_TS1     data_dev2           29
mss_acct_db_TS1     data_dev2           96
mss_acct_db_TS1     log_dev2            50

250
mss_acct_db_TS2     data_dev2           144
mss_acct_db_TS2     log_dev2            79

223
stmgtdb1            data_dev1           100
stmgtdb1            data_dev1           50
stmgtdb1            log_dev1            50

200
stmgtdb1_TS1        data_dev2           100
stmgtdb1_TS1        data_dev2           50
stmgtdb1_TS1        log_dev2            50

200
stmgtdb1_TS2        data_dev2           100
stmgtdb1_TS2        log_dev2            50
stmgtdb1_TS2        data_dev2           50

200
sybsecurity         sybsec              500
sybsecurity         sybsec              300

800
sybsystemdb         sybproc             5
sybsystemdb         sybproc             5

10
sybsystemprocs      sybproc             100

100
tempdb              master              2
tempdb              tempdb              2000

2002

EcCsNameServer      data_dev1           20
EcCsNameServer      log_dev1            10

30
EcCsNameServer_TS1  data_dev2           20
EcCsNameServer_TS1  log_dev2            10

30
EcCsNameServer_TS2  data_dev2           20
EcCsNameServer_TS2  log_dev2            10

30
EcCsRegistry        data_dev1           100
EcCsRegistry        log_dev1            50

150
EcCsRegistry_TS1    data_dev2           100
```

```
    EcCsRegistry_TS1        log_dev2                50

150
    EcCsRegistry_TS2        data_dev2               100
    EcCsRegistry_TS2        log_dev2                50

150
    Ingest                  data_dev1               100
    Ingest                  data_dev1               50
    Ingest                  log_dev 1               50

200
    Ingest_TS1              data_dev2               100
    Ingest_TS1              data_dev2               50
    Ingest_TS1              log_dev2                50

200
    Ingest_TS2              data_dev2               100
    Ingest_TS2              data_dev2               50
    Ingest_TS2              log_dev2                50

200
```

(5) Add logins and change DB owner:

```
DataPool                dpl_role
EcDsScienceDataServer1  sdsrv_role
EcNbDb                  nbsub_role
EcOmDb                  oms_role
mss_acct_db             mss_role
EcCsNameServer          css_role
EcCsRegistry            css_role
Ingest                  ingest_role
```

NOTE:
(i) All application databases in OPS/TS1/TS2 modes are with dboption "select into/bulkcopy/pllsort"
(ii) The dbccdb database is with "trunc log on chkpt" dboption.

(6) Load databases using the dumps from Step I.

(7) For each database drop and add user(s)

(8) Update dbccdb configuration:

(See 910-TDA-025 Section 5.3 Configuring dbccdb database)

```
use dbccdb
go
exec sp_dbcc_updateconfig <EACH_DB> , "max worker processes", "2"
exec sp_dbcc_updateconfig <EACH_DB> , "dbcc named cache", "dbcc_cache", "<Cache_Size>K"
exec sp_dbcc_updateconfig <EACH_DB> , "scan workspace", scan_ws
exec sp_dbcc_updateconfig <EACH_DB> , "text workspace", text_ws
go
```

(9) Configure sqs_srvr (4 instances)

III. Migrate Oracle 8i and Developer 2000 from t1dpg06 to t1dig06.