**General Information**  
[Servers](#BM_servers)  
[Databases](#BM_Databases)  
  
  
**How To**General Stuff  
[Disk space issues](#BM_Disk_Space)  
[Kill Session](#BM_KillSession)

Collection  
[Create New Customer](#BM_NewCustomer)  
[Adding Counters](#BM_AddCounters)  
[New Roaming agreements](#BM_CGW_New_RA)

Billing  
[Billing – generate Billing File](#BM_Billing)  
[Ongoing Billing Updates](#BM_Billing_Updates)  
  
**Troubleshooting**Collection  
[CDRs Stuck](#BM_CDRs)  
[Troubleshooting Counters](#BM_TroubleshootCounters)[Troubleshooting CDRoMETER](#BM_Cdrometer)  
[Troubleshooting TAP Files Transfer](#BM_TAP)  
  
Master  
[Refresh errors](#BM_Refresh)  
  
DWH  
[DWH ETL Process Error](#BM_DWH)

Create New Customer **1. Login to DWH**SELECT \* FROM HPMN. => find your customerSELECT \* FROM CUSTOMERS FOR UPDATE => Add your customer, take detail from HPMNtable.  
customer\_id = MUST BE UNIQUE!! **2. Login to CGW  
BEGIN  
 DBMS\_SNAPHOT.refresh(‘CUSTOMERS’);  
END;  
/  
3. In CGW:**SELECT \* FROM CUSTOMERS where customer|\_id = <new\_id> => New customer should be there

**Servers**

**For full list of servers and Databases, please look at** [**\\10.106.135.193\Alec\StarhomeData.html**](file:///\\10.106.135.193\Alec\StarhomeData.html)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Server** | **Linux/Win** | **User** | **Password** | **Usage** |
| 10.227.3.154 | Linux | iu | Sgc-Prvi | CGW DB |
|  |  | oracle | Cgw-Dwh |  |
| 10.227.3.150 | Linux | iu | Sgc-Prvi | DWH DB |
|  |  | Oracle | Cgw-Dwh |  |
|  |  |  |  |  |
| 10.227.3.186 | Win | iu | Wos-Spxk | Master DB |
| 10.227.3.186 | Win |  |  | Npprov DB |
|  |  |  |  |  |
| 10.227.5.4 | Win | iu | Wos-Spxk | TAP. XFER. O2UK. |
| 10.227.3.192 | Win | iu | Wos-Spxk | CDRoMETER GUI Service |
| 192.168.2.53 | Linux | iu | Sgc-Prvi | SA Counters |

**Databases**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **DB** | **User** | **Password** | **Server** | **Usage** |
| CGW | collector | cgw154igt | 10.227.3.154 | CGW DB |
| DWH | dwng | dw150igt | 10.227.3.150 | DWH |
| OSCAR | oscar | oscar | 10.227.3.184 | OSCAR |
| NPPROV | npprov | npprov | 10.227.3.186 | MASTER, NPPROV DB |
| Billing | starbill\_admin | starbill2011 | 10.227.3.150 | Billing |
| Refresh | shrefresh | shrefresh | 10.227.3.186 | SH Refresh |
| All | system | xen86pga |  | igt |
|  | system | Xen86Pga |  | Igt Oracle 11G2 |
|  | system | rad21mif |  | gin |

**Troubleshooting CDRoMETER**

1. No counters for SPARX
   1. Log Table: EXT\_SPARX\_TRACE
   2. Log View: EXT\_SPARX\_VW
   3. Code is in COLLECTOR.EXT\_SPARX package
   4. Check in EXT\_SPARX\_VW

– if some gate is stuck: update EXT\_SPARX\_DEST. Set active=Z for that gate.

1. No counters for IPN
   1. Log Table: EXT\_IPN\_TRACE
   2. Log View: EXT\_IPN\_VW
   3. Code is in COLLECTOR.EXT\_IPN package
   4. Check in EXT\_IPN\_VW  
      – if some gate is stuck: update EXT\_IPN\_DEST. Set active=Z for that gate.
2. No Alerts
   1. Log Table: EXT\_TRACE
   2. Log View: EXT\_TRACE\_VW and EXT\_TIME\_VW
   3. Code is in COLLECTOR.EXT package
   4. Check in EXT\_TRACE\_VW.
      1. Option A – the load is not finished yet, just let it run…
      2. Option B – there is some error. Not common.
3. No Alerts
   1. Restart the CDRoMETER service on 10.227.3.192.
   2. Restart the 10.227.3.192 server (has to do with Microsoft Events log being stuck, and CDRoMeter app cannot update it)
4. Code
   1. Code is in Collector.EXT package.  
      Just look for counter name as it appears in CDRoMETER GUI to find the related code.

**Special Counters cases**

**SA Counters**  
For:  
Col\_Claro ,Ecu\_Claro ,Isr\_Starh ,Mex\_Telcel ,Phl\_Globe,Zaf\_Mtn  
Check on server 192.168.2.53, under SA\_COUNTERS/<customer>/ for possible errors

**O2 UK counters**  
On server 10.227.5.4 there is a scheduled task Other\_load\_o2uk\_counters  
It runs a Perl script that brings the file from 10.0.222.100 via FTP, then inserts the rows in the file into O2UK\_OSMS\_COUNTER\_DATA in CGW.

**Troubleshooting TAP Files Transfer**  
  
On server 10.227.5.4 there are a bunch of TAP\_XXX\_Tapsend scheduled task  
If there is an error – need to check log – per path under the task.  
  
To find the code : open scheduled Tasks, there are bunch of tasks starting with “TAP…”  
  
In 90% of cases – The error is: ***'Failed to bring files from server: 10.227.3.154'***  
The solution in this case – just rerun the scheduled task.

10% of cases – a specific error.

For BobAutTabs, SimobilTaps, MobilkomAutTap, MobilkomLieTaps:

Mossty the error is because one file was not processed  
Under BobAutTabs there is a file reprocess\_one\_file.bat

Use that one as an example.

For tel\_taps and tms\_taps:  
Most of the time the error is with scp of the tar file to customer server.

In this case just run

D:\tel\_taps\send\_sftp.bat

It will resend the latest tar file.

The alert is an email: "A Fatal Error Occurred during CDR Transfer to XXX…"

**Disk space issues  
Could be no physical space (on Linux) or no Logical space (In Tablespace)**  
  
**A. No disk space on Linux**find /software/oracle -type f -printf '%s %p\n'|sort -nr | head -10  
  
 **Common issues:  
1.** cd to /software/oracle/diag/rdbms/igt/igt/trace/  
delete the largest \*trc files  
 **2.** Delete arch\* files under /oracle\_db/db2/db\_igt/arch/  
and then run all crontab rman related tasks under shdaemon

**B. No disk space on DB** (Tablespace)

Check following.  
Common cause – some DEBUG table is growing too big.  
  
Get current status:  
**1.In files:**

**SET LINESIZE 140  
SET PAGESIZE 200  
COL tablespace\_name FOR A30  
COL file\_name FOR A60  
COL Mb FOR 9999999999999  
COL MAX\_MB FOR 9999999999999  
  
SELECT tablespace\_name, file\_name, ROUND(bytes/1024/1024) AS Mb, ROUND(maxbytes/1024/1024) AS MAX\_MB  
 FROM DBA\_DATA\_FILES  
ORDER BY tablespace\_name, file\_name;**

**2.In Tablespace:**  
**SET LINESIZE 120  
SET PAGESIZE 200**

**SELECT TABLESPACE\_NAME,   
 (MAX(MAX\_SPACE)-MAX(USED\_SPACE) )AS DBA\_FREE\_SPACE\_MB,   
 MAX(USED\_SPACE) AS USED\_SPACE\_MB,   
 MAX(MAX\_SPACE) AS MAX\_SPACE\_MB,   
 ROUND(( (MAX(MAX\_SPACE)-MAX(USED\_SPACE) ) /MAX(MAX\_SPACE) ) \*100) as FREE\_PCT,   
 CASE WHEN (ROUND(( (MAX(MAX\_SPACE)-MAX(USED\_SPACE) ) /MAX(MAX\_SPACE) ) \*100)<15) THEN 'Y' ELSE 'N' END AS ADD\_MORE\_SPACE   
FROM (   
SELECT tablespace\_name,   
 ROUND(SUM(bytes)/1024/2014) AS FREE\_SPACE,   
 0 AS MAX\_SPACE,   
 0 AS USED\_SPACE   
 FROM DBA\_FREE\_SPACE  
 WHERE tablespace\_name LIKE '%IGT%' OR tablespace\_name LIKE '%DWH%' OR tablespace\_name LIKE '%REPORTS%' OR tablespace\_name = 'SYSTEM' OR tablespace\_name = 'SYSAUX'   
 GROUP BY tablespace\_name   
 UNION ALL   
 SELECT tablespace\_name,   
 0 AS FREE\_SPACE,   
 ROUND( SUM(CASE WHEN (bytes>maxbytes) THEN bytes ELSE maxbytes END)/1024/1024) AS MAX\_SPACE,   
 0 AS USED\_SPACE   
 FROM DBA\_DATA\_FILES  
 WHERE tablespace\_name LIKE '%IGT%' OR tablespace\_name LIKE '%DWH%' OR tablespace\_name LIKE '%REPORTS%' OR tablespace\_name = 'SYSTEM' OR tablespace\_name = 'SYSAUX'  
 GROUP BY tablespace\_name   
 UNION ALL   
 SELECT tablespace\_name,   
 0 AS FREE\_SPACE,   
 0 AS MAX\_SPACE,   
 ROUND(SUM(bytes/1024/1024)) AS USED\_SPACE   
 FROM DBA\_SEGMENTS  
 WHERE tablespace\_name LIKE '%IGT%' OR tablespace\_name LIKE '%DWH%' OR tablespace\_name LIKE '%REPORTS%' OR tablespace\_name = 'SYSTEM' OR tablespace\_name = 'SYSAUX'  
GROUP BY tablespace\_name   
)   
GROUP BY tablespace\_name;**

**3.Per Table/Index  
SET LINESIZE 120  
SET PAGESIZE 200  
COL tablespace\_name FOR A30  
COL owner FOR A30  
COL segment\_name FOR A30  
COL USED\_MB FOR 9999999999999**

**SELECT owner, tablespace\_name, segment\_name, USED\_MB   
 FROM (   
 SELECT owner, tablespace\_name, segment\_name, ROUND(SUM(bytes)/1024/1024)AS USED\_MB FROM DBA\_SEGMENTS  
 WHERE tablespace\_name LIKE '%TABLE%'   
 GROUP BY owner, tablespace\_name,segment\_name   
 ORDER BY ROUND(SUM(bytes)/1024/1024) DESC   
) WHERE ROWNUM < 11;  
  
SELECT owner, tablespace\_name, segment\_name, USED\_MB   
 FROM (   
 SELECT owner, tablespace\_name, segment\_name, ROUND(SUM(bytes)/1024/1024)AS USED\_MB FROM DBA\_SEGMENTS  
 WHERE tablespace\_name LIKE '%INDEX%'   
 GROUP BY owner, tablespace\_name,segment\_name   
 ORDER BY ROUND(SUM(bytes)/1024/1024) DESC   
) WHERE ROWNUM < 11;**

Solution:  
Option A – TRUNCATE some big table.  
Option B - Add space.   
If no data can be truncated– increase current size by 2-4 Gb

Option A – increase size of current file

In this example, the max file size is set to 20Gb  
The maxsize is 32Gb – OS Limit.  
**ALTER DATABASE DATAFILE '/oracle\_db/db1/db\_igt/ora\_table\_01.dbf' AUTOEXTEND ON MAXSIZE 20000M;**  
Option B – add new file

**ALTER TABLESPACE TABLE\_IGT ADD DATAFILE '/oracle\_db/db1/db\_igt/ora\_table\_02.dbf' SIZE 1024M AUTOEXTEND ON MAXSIZE 2000M;**

**Kill Session**  
**SELECT S.spid,   
 S.osuser,   
 S.username,   
 S.program,  
 'ALTER SYSTEM KILL SESSION '''||S.sid||','||S.serial#||''' IMMEDIATE;' AS "Oracle Kill",**

**'orakill '||INSTANCE\_NAME||' '||P.spid AS "Windows kill" ,**

**'kill -9 '||P.spid AS "LINUX Kill"**

**FROM V$PROCESS P,   
 V$SESSION S  
 WHERE p.addr=s.paddr**

**AND osuser <> 'oracle'**

**AND s.USERNAME = 'VIP700'**

**AND s.program = 'sqlplus.exe';**

**Billing – generate Billing File**  
  
**General**There are several processes, each one generates a separate "mimshak.doc" file, that is sent automatically to Billing team.  
There are 2 dates to run billing processes:

On 20th of each month

On 1-3 of following month. (on 1/9/YYYY – run billing for 8/YYYY)

**Login**

starbill\_admin/starbill2011 on server 10.227.3.150.

**Log table**  
B\_BILLING\_TRACE

**Pre-Billing Steps.  
  
For 20th Billing:**None. Go to step **4. Run Billing.**

**For 1-3 next month Billing:  
  
1. Check no leftovers on gates**  
Collection DB

SELECT \* FROM CDRS\_ON\_ONODES\_VW  
Should return no rows.  
If there are rows, follow section [CDRs Stuck](#BM_CDRs)  
  
(There a job running daily to clean leftovers)

**2. Update Currency Rates**STARHOIME\_ADMIN in DWH DB

Need to set the last date of the previous month.   
Just follow example of previous month

To: Table B\_REF\_CURENCY\_RATES

Can use this view to see last month record + do copy/paste + edit rate

SELECT \* FROM B\_REF\_CUR\_LAST\_MONTH;

Where to take from the new rate:  
A.  
INR-USD:  
Open <http://www.oanda.com/currency/converter/>  
Select the date, **the last day** of previous month  
  
B. SDR to USD is taken from excel sent from Telma Madagaskar. (There is “SDR to USD” rate)

**4. Run Billing.  
  
Point of Contact** – Arun Kumar B.  
– Erez Salmon

**Database:**Login to starbill\_admin  
 **Trace Tables:**  
B\_TRACE\_VW (For DB processing)  
UTIL\_TRACE\_VW (For Mimshak file generation)  
 **The processes:**A. On the 20th of each month  
 **1. There is a job running on the 20th.**

**The code: BILLING\_NEW.runBillingFixed** (No parameters needed)

A. On 1-3 of following month **1. BILLING\_ADMIN.RUN\_MONTHLY\_BILLING\_IOT.** (No parameters needed) Wait till it finishes before running next process.   
 Check in B\_BILLING\_TRACE, it might take hours.  
 **2. BILLING\_ADMIN.RUN\_MONTHLY\_BILLING\_REV\_SHARE** (No parameters needed)

Wait till it finishes before running next process.   
 Check in B\_BILLING\_TRACE, it might take hours. **3. Telma** This is a long story…Before running this process, need to manually handle updated rates from Telma.  
 Rates are updated from Excel send on monthly basis from Telma.

There is rate per Operator.

Some operators have rate per zone.

Some operators have rate per zone per peak/off peak

**Each entry in excel should be updated in DB via one of these procedures:**

Open the excel.

(For example “RP with discount for STARHOME with February 2017 applicable rates.xlsx”)

**Steps**

**A.**

**Set the rate in table B\_REF\_CURRENCY\_RATES for SDR-USD**Take the value from sheet “IOT Discount On TAP File Rating” SDR to USD , on top

**B.  
Update new rates in table B\_IOT\_MONTHLY\_HPMN\_TARIFF**On sheet “IOT Discount On Calculation” use numbers from column “MOC discounted $”  
On sheet “IOT Discount On TAP File Rating” use numbers from column “MOC discounted $”  
Recommendation: Mark the column to use in Yellow  
  
Use the column “Operator” values, when running below procedures.  
Except for KPN. In KPN use KPN1 and KPN2.

**C.**  
1. ADMIN\_UTIL.updateHpmnTariffTelma => For all, except the following:  
2. ADMIN\_UTIL.updateHpmnTariffTelma\_NTT => NTT Docomo  
3. ADMIN\_UTIL.updateHpmnTariffTelma\_EMTEL => EMTEL  
4. ADMIN\_UTIL.updateHpmnTariffTelma\_perZone => SRR, SFR. Free Mobile  
5. ADMIN\_UTIL.updateHpmnTariffTelma\_TELSTRA => TELSTRA

**D. Run Billing for Telma IOT**

**BILLING\_ADMIN.RUN\_MONTHLY\_BILLING\_TELMA**(No parameters needed)This take time… ~ 30 minutes  
Trace table: B\_BILLING\_TRACE

**Sending Generated Mimshak file**  
There is automated mail, to send generated file.  
It is sent at the end of each run – each file per Fixed/IOT/SHARED/Telma(MDG)  
If that fails – the files are located at:  
10.227.3.150  
oracle/Cgw-Dwh  
cd invoices. (link to /software/oracle/admin/igt/udump/utlfile/ )  
Need to send the file manually to Arun Kumar B.

Ongoing Billing Updates  
In case there is a need to update data (Per advice from billing team)  
  
1. Use view CUSTOMER\_BILLING\_INFO\_VW to query  
  
2. Use BILLING\_ADMIN package to update data

1. createFixedFee – for New
2. multiUpdate – for Updates
3. terminatePricePlan – for Delete.

**Refresh issues.**  
**To get current Status**  
Login to shrefresh/shrefresh@MASTER11  
SELECT \* FROM LAST\_REFRESH\_VW  
Those not refreshed, would have NULL in last\_refresh\_end   
  
**To Fix**Option A: via scripts:  
on 10.106.135.193\Alec\Troubleshooting\Refresh Issues\auto\_refresh\one\_gate\There are scripts to refresh one specific gate.  
If gate does not exists – copy from \\10.106.135.193\Alec\Troubleshooting\Refresh Issues\auto\_refresh\refresh\_scripts\  
Either IG1\_Gate\_Master or IG2\_Gate\_Master, rename folder, and edit files db\_system.ini and db\_list.ini.  
To launch, run main\_main.bat  
  
Option B: Manually  
Login to the remote gate with 2 sessions.  
  
**As app DB user:**BEGIN

-- call the procedure

SH\_REFRESH\_PKG.delete\_refresh\_job;

END;

/

**As system:**SELECT 'ALTER SYSTEM KILL SESSION ' || SUBSTR(''''||v\_session.sid||','||v\_session.serial#||'''', 1,15)||' IMMEDIATE;' AS "Kill Session",

'kill -9 '||v\_process.spid AS "LINUX Kill",

'orakill '||INSTANCE\_NAME||' '||v\_process.spid AS "orakill command",

v\_session.machine AS "SERVER",

v\_session.osuser AS OS\_USER,

v\_session.program,

v\_session.sid,

v\_session.serial#,

v\_process.spid,

v\_session.username,

DBA\_JOBS.schema\_user,

DBA\_JOBS.what

FROM v$session v\_session,

v$process v\_process,

V$INSTANCE,

DBA\_JOBS\_RUNNING stuck\_jobs,

DBA\_JOBS

WHERE v\_process.addr = v\_session.paddr

AND v\_session.type != 'BACKGROUND'

AND v\_session.sid = stuck\_jobs.sid

AND DBA\_JOBS.job(+) = stuck\_jobs.job;

Execute the generated SQL  
  
**As app DB user:**BEGIN

-- call the procedure

SH\_REFRESH\_PKG.create\_refresh\_job;

END;

/

BEGIN

-- call the procedure

SH\_REFRESH\_PKG.refresh\_prc;

END;

/

**CDRs Stuck**  
May happen if gate was down for long time, and CDRs where not collected to gate.  
So they get stuck on ONODE1/2 DBs  
  
If less than 4000 CDRs – done automatically

If more than 4000 – manually.

Part A – in Collection DB  
1. SELECT \* FROM CDRS\_ON\_ONODES\_VW  
2. Copy/Paste rows to OPER\_PARAMS\_COLLECT\_CDRS  
 If in doubt – look for example in OPER\_PARAMS\_COLLECT\_CDRS\_HIST  
3. Wait till collect\_cdrs\_is\_running is ‘N’   
 Mark:  
 active\_ind = ‘Y’  
 run\_dwh\_etl\_ind = ‘N’

Checks after some time – wjen CDRs are processed - run\_dwh\_etl\_ind is set to ‘Y’

Part B – in DWH DB

1. SELECT \* FROM OPER\_PROC\_CONTROL WHERE process\_name = ‘DWHTL’  
   is\_running should be N
2. Packages -> Admin\_util -> RUN\_DWHTL\_PARTIAL -> Execute  
   Should finish after few minutes.

**Adding Counters**  
  
**Step A (Optional – create Customer)**1. Add new customer, if not exist already in COLLECTION.customers  
See separate section “Create New Customer”   
  
**Step B. Create new DB\_LINK**  
Example for SLV\_TOGOQ\_IRMQQ

SELECT \* FROM DBA\_DB\_LINKS WHERE   
CREATE DATABASE LINK GLR\_ SLV\_TOGO CONNECT TO SLV\_TOGOQ\_IRMQQ IDENTIFIED BY SLV\_TOGOQ\_PASSW USING ‘GEN\_FRANK\_INST3’;  
  
Where to find the value for USING ‘XXX’?

Login to collection Linux server, and find the IP in tnsnames.ora  
  
**Step C.**  
Check if db\_link is OK:  
SELECT SYSDATE FROM DUAL@KUKU  
  
  
  
**Step D. Create the counters.  
In Collection DB  
using ADMIN\_UTIL package**  
There is a procedure for each counter (SPARX, GLR, IPN, etc…)  
createNewISparxCounters,   
createNewGlrCounters,   
each procedure – give parameters as needed.

**Troubleshooting Counters**

1. Each counter has a view on a log table”  
   EXT\_GLR\_VW, EXT\_SPARX\_VW, EXT\_IPN\_VW, etc…
2. Most of the time, the processing is “stuck” on a connection to some gate.  
   The solution in this case:  
   go to GLR\_DEST (or IPN\_DEST, SPARX\_DEST) and mark active to ‘Z’
3. That is all…   
   The hanging processes would be terminated after ~0-30 minutes, and collection will resume.

**DWH ETL Process Error**  
Running at night, and prepare data for reports.

1. UPDATE OPER\_PROC\_CONTROL set is\_running = 'N' WHERE process\_name = 'DWHTL'  
  **MUST DO THIS STEP!!! – else not possible to rerun and process will be stuck forever!!!**

2. Check in view DWH\_TRACE\_VW  
  
3. Real errors are very rare.   
  
 Generally, sometimes there is an error that cannot be reproduced.   
 Just rerun.  
 On rerun – all works.  
  
Final message, marking end of process:  
 “Done creating aggregations”  
 “Final ETL Step Completed”  
 If it there – Nothing to do  
  
 If it is not there – First rerun the job (job\_id 331)

BEGIN

DBMS\_JOB.next\_date(job => 331, next\_date => SYSDATE + 1/1440);

commit;

END;

/

Do steps 1+2.

If still not good - tough luck…  
  
 A real problem comes because of some bad data in counters, once every few months.   
 There are no common errors.  
 Need to dig into the code (DWH DB, DWHHTL Package) to see where the problem is coming from. The code that is running is:  
SELECT what FROM USER\_JOBS where job = 331;  
  
After fixing the problem (Usually some duplicate data coming from gate) need to rerun the process.

No need to rerun from start.  
Open DWH DB, DWNG user, DWHTL package, main procedure.  
  
Look in code for “v\_do\_step”  
Take the value of the failed step.   
The process need to be running from that point and onward.

(If not sure – just leave it, skip steps below, and the process would run from start)  
  
Now update in OPER\_PROC\_SETUP table  
  
OPER\_PROC\_SETUP table   
process\_name = always DWHTL  
RETRIVE\_DATA – set to N   
START\_STEP = set to v\_do\_step from code  
POPULATE\_DATES – set to N

Now run the job:  
BEGIN

DBMS\_JOB.next\_date(job => 331, next\_date => SYSDATE + 1/1440);

commit;

END;

/

New Roaming agreements  
From A1(AUT)  
Login to <https://ticket.a1telekom.at> with akaplan/alec  
Take RA details.  
ONLY for outbound!!!  
Login to COLLECTION DB  
Run ADMIN\_UTIL.CreRoamingAgreement.