# HI MAXDAT Contact Center

## Contact Center Actuals

### Data Files

The Production Planning Actuals report for the HCCHIX Project Contact Center relies on a data load from Echopass. The data comes in a set of comma separated values (CSV) files which mirror the structure of the staging tables.

* MAXHIHIX\_CC\_S\_ACD\_AGENT\_ACTIVITY\_[MMDDYYHHMMSS].csv
* MAXHIHIX\_CC\_S\_ACD\_INTERVAL\_[MMDDYYHHMMSS].csv
* MAXHIHIX\_CC\_S\_AGENT\_[MMDDYYHHMMSS].csv
* MAXHIHIX\_CC\_S\_CALL\_DETAIL\_[MMDDYYHHMMSS].csv
* MAXHIHIX\_CC\_S\_CONTACT\_QUEUE\_[MMDDYYHHMMSS].csv
* MAXHIHIX\_CC\_S\_IVR\_INTERVAL\_[MMDDYYHHMMSS].csv
* MAXHIHIX\_CC\_S\_IVR\_STEP\_[MMDDYYHHMMSS].csv

Documentation of these files can be found in the Echopass directory in the following files.

* MaxDat Data Dictionary.xlsx
* Maximus Data Dictionary V1.1.docx

### Data Load Process

Echopass uploads the files to an FTP server (sftp:\\Transfer.us2.echopass.com) and the MoveIt team picks them up and moves them to the HIHIX Production server (10.1.229.162). The Production server has a CRON job running run\_load\_contact\_center.sh on an hourly basis. As of release 0.1.5, the CRON job runs hourly on the half hour. The load\_contact\_center kettle script picks the files up from the New directory on the application server, moves them to the Processing directory for processing, and finally to the Completed directory upon successful completion of the scripts. If an error occurs, the erroneous files are moved to the Error directory.

## Contact Center Forecasts

### Data Files

The Contact Center Production Planning Forecast relies on a data load from the Contact Center Arena model. This data source consists of a set of flat files.

* [YYYYMMDD]\_MAXDat\_Production\_Plan\_Parameters.csv
* [YYYYMMDD]\_MAXDat\_Agent\_Usage\_Report.csv
* MAXDat\_service\_metrics\_final.csv
* [YYYYMMDD]\_MAXDat\_Volume\_Data.csv

The Production Plan Parameters file contains the header information describing the production plan and production plan horizon that the file set is associated with. The Agent\_Usage, Service\_Metrics and Volume files contain the details of the forecast and are joined together via the production plan name, horizon start and end dates, interval start and end dates and the unit of work.

### Data Upload Process

There are two mechanisms for uploading a forecast file set to the MAXDAT application server. The first is to sftp or scp the files into the forecast inbound directory located at the path below where [env] represents the relevant environment shorthand (dev/uat/int/prd).

* /u01/maximus/maxdat-[env]/HCCHIX/forecasts/Inbound

In the production environment, the forecast files can be uploaded via the MAXIMUS Xchange Portal.

* <https://xchange.maximus.com/>

Files uploaded to the [/](https://xchange.maximus.com/human.aspx?r=310263694&Arg12=folders)[Health\_Services/](https://xchange.maximus.com/human.aspx?r=310263694&Arg12=filelist&Arg06=652816666)[HI HIX/](https://xchange.maximus.com/human.aspx?r=310263694&Arg12=filelist&Arg06=935060343)[Forecasts/](https://xchange.maximus.com/human.aspx?r=310263694&Arg12=filelist&Arg06=947853206)https://xchange.maximus.com/images/null.gifdirectory will be delivered to the forecast inbound directory and picked up for processing.

## Contact Center Actuals Timeline

Timeline of events for daily file import:

* 7:00 ET - Echopass begins the file transfer to the HCCHIX FTP server (approx. time lapse 4 minutes)
* 7:10 ET - MoveIt picks the files up from the FTP server and puts them in the Inbound directory on the HI PROD app server (approx. time lapse 5 minutes)
* 7:30 ET – CRON job runs the ETL scripts every hour on the half hour (approx. time lapse 1 hour)

## HI Environments

|  |  |  |  |
| --- | --- | --- | --- |
|  | User | App Server | Database |
| DEV | etladmin | 10.200.90.78  MAXDAT\_ETL\_PATH=/u01/maximus/maxdat-dev/HCCHIX/ETL/scripts  MAXDAT\_ETL\_LOGS=/u01/maximus/maxdat-dev/HCCHIX/ETL/logs | HIHXMXDD =  (DESCRIPTION =  (ADDRESS = (PROTOCOL = TCP)(HOST = rcmxdb09d.maximus.com)(PORT = 1547))  (CONNECT\_DATA =  (SERVER = DEDICATED)  (SERVICE\_NAME = hihxmxdd.maximus.com)  )  ) |
| UAT | [your maximus login] | rchxap13ua.maximus.com  MAXDAT\_ETL\_PATH=/u01/maximus/maxdat-uat/HCCHIX/ETL/scripts  MAXDAT\_ETL\_LOGS=/u01/maximus/maxdat-uat/HCCHIX/ETL/logs | HIHXMXDU =  (DESCRIPTION =  (ADDRESS = (PROTOCOL = TCP)(HOST = kil-scan-01.maximus.com)(PORT = 1547))  (CONNECT\_DATA =  (SERVER = DEDICATED)  (SERVICE\_NAME = hihxmxdu.maximus.com)  )  ) |
| INT | [your maximus login] | rchxap13ua.maximus.com  MAXDAT\_ETL\_PATH=/u01/maximus/maxdat-int/HCCHIX/ETL/scripts  MAXDAT\_ETL\_LOGS=/u01/maximus/maxdat-int/HCCHIX/ETL/logs | HIHXMXDI =  (DESCRIPTION =  (ADDRESS = (PROTOCOL = TCP)(HOST = kil-scan-01.maximus.com)(PORT = 1547))  (CONNECT\_DATA =  (SERVER = DEDICATED)  (SERVICE\_NAME = hihxmxdi.maximus.com)  )  ) |
| PROD | [your maximus login] | 10.1.229.162  MAXDAT\_ETL\_PATH=/u01/maximus/maxdat-prd/HCCHIX/ETL/scripts  MAXDAT\_ETL\_LOGS=/u01/maximus/maxdat-prd/HCCHIX/ETL/logs | HIHXMXDP =  (DESCRIPTION =  (ADDRESS = (PROTOCOL = TCP)(HOST = rsmxdb07.maximus.com)(PORT = 1547))  (CONNECT\_DATA =  (SERVER = DEDICATED)  (SERVICE\_NAME = hihxmxdp.maximus.com)  )  ) |

## Contact Center File Paths

### General

The table below describes the file paths where the Contact Center scripts are installed and where the Contact Center logs are written. These file paths are codified in Unix environment variables in the .bash\_profile. The table below contains the PRD file path. In other environments, the “-prd” should be replaced with “-$env\_code”. E.g., /u01/maximus/maxdat-dev/HCCHIX/ETL/scripts.

|  |  |
| --- | --- |
| Env Variable | Physical path |
| $MAXDAT\_ETL\_PATH | /u01/maximus/maxdat-prd/HCCHIX/ETL/scripts |
| $MAXDAT\_ETL\_LOGS | /u01/maximus/maxdat-prd/HCCHIX/ETL/logs |

A Contact Center specific directory, ContactCenter will be found within the directories defined above. All Contact Center files are contained within the ContactCenter directory.

### Echopass ETL

The table below describes the file paths relevant to the Echopass data file ETL process. Files are delivered to the Inbound directory. From there, they are sorted into their respective context, ACD, IVR or WFM and then moved into the Processing directories while being processed. Once processed, they are moved into the Inbound\_archive directory. If an error occurs during processing, the files are moved into the Error directory.

|  |  |
| --- | --- |
| Virtual path | Physical path |
| New | /u01/maximus/maxdat-prd/HCCHIX/Echopass/Inbound |
| Processing | /u01/maximus/maxdat-prd/HCCHIX/Echopass/Processing |
| Completed | /u01/maximus/maxdat-prd/HCCHIX/Echopass/Inbound\_archive |
| Error | /u01/maximus/maxdat-prd/HCCHIX/Echopass/Error |

### Forecast ETL

The table below describes the file paths relevant to the Forecast data file ETL process. Files are delivered to the Inbound directory. From there, they are moved into the Processing directory while being processed. Once processed, they are moved into the Completed directory. If an error occurs during processing, the files are moved into the Error directory.

|  |  |
| --- | --- |
| Virtual path | Physical path |
| New | /u01/maximus/maxdat-prd/HCCHIX/forecasts/Inbound |
| Processing | /u01/maximus/maxdat-prd/HCCHIX/forecasts/Processing |
| Completed | /u01/maximus/maxdat-prd/HCCHIX/forecasts/Completed |
| Error | /u01/maximus/maxdat-prd/HCCHIX/forecasts/Error |

## Contact Center Data Model

Full documentation, including diagrams and data dictionaries, of the Contact Center data model can be found on maxcs. The table below describes how the data model is organized based on the table prefixes.

|  |  |
| --- | --- |
| Table Prefix | Purpose |
| CC\_A\_\* | Administrative tables. As currently implemented, tables with a CC\_A prefix facilitate job schedules. (Administrative tables are not presently in use in the HI implementation) |
| CC\_C\_\* | Configuration tables. The primary purpose for configuration tables is to enrich source data with MAXIMUS business context data. E.g, which unit of work a queue is associated, agent activity categories, MAXIMUS project attributes, etc. Also included in the configuration tables are filter tables for use in data extraction from source tables without having to modify ETL code. Instead, records can be added or removed from this table to modify the data filter logic. E.g., which ACD skill groups or queues to include in a data extraction. (Filter tables are not presently in use in the HI implementation) |
| CC\_L\_\* | Logging tables. The purpose for logging tables is to capture audit information about the system. This includes error logging, transformation logging, and database patch logging (i.e., which db patch scripts have been executed). |
| CC\_S\_\* | Staging tables. The staging area is the initial location for data extracted from the source system. CC\_S\_TMP\_\* tables are temporary tables that are used to quickly extract data from source systems without applying transformation or business logic on them to mitigate impact to the source systems. (Temporary tables are not presently in use in the HI implementation) |
| CC\_D\_\* | Dimension tables. Dimension tables contain the attributes associated with the facts to facilitate grouping, filtering and labeling of data. |
| CC\_F\_\* | Fact tables. Fact tables contain the Contact Center metrics. |

## Contact Center Administration

### How to add a new Contact Queue

1. Identify the following attributes of the queue.
   1. Queue name
      1. This should match exactly the name that is provisioned in the source system.
   2. Queue number
      1. For HI, this is manually assigned by the developer using the max number + 1 as queue number is provided in the Echopass data extract.
   3. Service percent
   4. Service seconds
   5. Unit of work name
   6. Queue type
2. Determine if the unit of work already exists.
   1. If unit of work does not already exist, add new record to the following tables
      1. CC\_C\_UNIT\_OF\_WORK
      2. CC\_D\_UNIT\_OF\_WORK
3. Add new record for the contact queue to the following tables using the attributes identified above. Any remaining attributes should be defaulted to match the other records in the tables.
   1. CC\_C\_CONTACT\_QUEUE
   2. CC\_S\_CONTACT\_QUEUE

## Deployment Process

ant package -Dproject=HIHIX -Dversion=0.2  
then run the 2 scripts in the db zip on the DEV database  
and unzip the kettle zip on the AS server  
unzip -o -d $MAXDAT\_ETL\_PATH/ContactCenter maxdat-contact-center-kettle-0.2.zip  
then you can run the job on the AS server as a test  
upload you test files to /u01/maximus/maxdat-dev/HCCHIX/Echopass/Inbound  
  
and run the following  
nohup /u01/maximus/maxdat-dev/HCCHIX/ETL/scripts/ContactCenter/implementation/HIHIX/bin/run\_load\_contact\_center.sh &