 http://upload.wikimedia.org/wikipedia/en/thumb/a/aa/Banco_de_Chile_Logo.png/200px-Banco_de_Chile_Logo.png

**Audit Logging for Banco de Chile Mobile Banking**

Banco de Chile requires that many customer actions be logged to audit table(s) in the database.

The database table in the Mobiliser mBanking database is named MOB\_AUDIT\_LOGS. No modification to this table will be required.

The bank requests that the following data be stored for each audit entry. These are the only columns of the table that we will use:

|  |  |
| --- | --- |
| **Data** | **Database Column** |
| Mobiliser Customer ID | ID\_CUSTOMER |
| Date & Time | DAT\_CREATION |
| Action | STR\_ACTION |
| Device ID (if not using WAP) | STR\_DEVICE\_ID |
| Result Code (success or failure) | STR\_ACTION\_RESULT\_CODE |
| Customer ID (RUT) | STR\_PARAMETER\_1 |
| Source account number | STR\_PARAMETER\_2 |
| Destination account number | STR\_PARAMETER\_3 |
| Amount | STR\_PARAMETER\_4 |
| Additional context | STR\_PARAMETER\_5 |
| Transaction ID | STR\_PARAMETER\_6 |
| Type of authentication device used | STR\_PARAMETER\_7 |

Note that ID\_CUSTOMER, is the key of the customer in the MOB\_CUSTOMERS table in the Mobiliser database.

Note that in the case where customers are using the WAP channel, no Device ID will be available. Leave STR\_DEVICE\_ID null in that case as an indicator that the customer was using the WAP channel.

Note that we need to audit all of the required transactions, whether they succeed or fail. In the cases where the transaction succeeds, we will save zeros to STR\_ACTION\_RESULT\_CODE. In the cases where the transaction fails, we will save the non-zero result code received from the bank’s web service. Also, in the event that the transaction fails, no Transaction ID will be available, so null will be stored to STR\_PARAMETER\_6.

For STR\_PARAMETER\_7, we need to store some consistent value that indicates the type of authentication device used for the transactions where an authentication device is required. For example, “digiCard”, “digiPass”, “Emergency Key”.

Below is a list of the activities that we will log, and a description of the audit data we will store.

**Enrollment**

|  |  |
| --- | --- |
| STR\_ACTION | “ENROLL” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | (not used) |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | (not used) |
| STR\_PARAMETER\_7 | (not used) |

Be sure to populate STR\_DEVICE\_ID with the ID of the newly created entry in the BDC\_ENROLLMENTS table.

**Un-enrollment**

|  |  |
| --- | --- |
| STR\_ACTION | “UNENROLL” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | (not used) |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | (not used) |
| STR\_PARAMETER\_7 | (not used) |

Be sure to populate STR\_DEVICE\_ID with the ID of the device being un-enrolled.

**Login**

|  |  |
| --- | --- |
| STR\_ACTION | “LOGIN” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | (not used) |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | (not used) |
| STR\_SESSION\_ID | If a Mobiliser session ID is available for the session being started. |

**Logout**

|  |  |
| --- | --- |
| STR\_ACTION | “LOGOUT” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | (not used) |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | (not used) |
| STR\_PARAMETER\_7 | (not used) |
| STR\_SESSION\_ID | If a Mobiliser session ID is available for the session being ended. |

**Terms and Conditions Accepted (This is not used for this phase of the project)**

|  |  |
| --- | --- |
| STR\_ACTION | “TC\_ACCEPT” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | (not used) |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | Some explanation of the context. For example, “Terms for a new loan” or “Terms for alerts”. |
| STR\_PARAMETER\_6 | (not used) |
| STR\_PARAMETER\_7 | (not used) |

**Transfer Funds between accounts**

|  |  |
| --- | --- |
| STR\_ACTION | “TRANSFER\_BETWEEN\_ACCOUNTS” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Source account number |
| STR\_PARAMETER\_3 | Destination account number |
| STR\_PARAMETER\_4 | Amount transferred |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**Transfer Funds to third party**

|  |  |
| --- | --- |
| STR\_ACTION | “TRANSFER\_THIRD\_PARTY” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Source account number |
| STR\_PARAMETER\_3 | Destination account number |
| STR\_PARAMETER\_4 | Amount transferred |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**Credit Card Advance**

|  |  |
| --- | --- |
| STR\_ACTION | “CREDIT\_CARD\_ADVANCE” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Source card number |
| STR\_PARAMETER\_3 | Destination account number |
| STR\_PARAMETER\_4 | Amount advanced |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**Add Recipient**

|  |  |
| --- | --- |
| STR\_ACTION | “ADD\_RECIPIENT” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | (not used) |
| STR\_PARAMETER\_3 | Recipient name or account number |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | Recipient email address |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**Payment Made to Credit Line**

|  |  |
| --- | --- |
| STR\_ACTION | “PAYMENT\_CREDIT\_LINE” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Source account number |
| STR\_PARAMETER\_3 | Payee identifier |
| STR\_PARAMETER\_4 | Amount paid |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**Payment Made to International credit card**

|  |  |
| --- | --- |
| STR\_ACTION | “PAYMENT\_CREDIT\_CARD\_INTERNATIONAL” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Source account number |
| STR\_PARAMETER\_3 | Payee identifier |
| STR\_PARAMETER\_4 | Amount paid |
| STR\_PARAMETER\_5 | ‘billed amount’, ‘minimum amount’, or ‘other amount’ |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**Payment Made to national credit card**

|  |  |
| --- | --- |
| STR\_ACTION | “PAYMENT\_CREDIT\_CARD\_NATIONAL” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Source account number |
| STR\_PARAMETER\_3 | Payee identifier |
| STR\_PARAMETER\_4 | Amount paid |
| STR\_PARAMETER\_5 | ‘billed amount’, ‘minimum amount’, or ‘other amount’ |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**Payment Made to Service Account**

|  |  |
| --- | --- |
| STR\_ACTION | “PAYMENT\_ACCOUNT” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Source account number |
| STR\_PARAMETER\_3 | Payee identifier |
| STR\_PARAMETER\_4 | Amount paid |
| STR\_PARAMETER\_5 | Business or service name |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**RedGiro (send money to ATM)**

|  |  |
| --- | --- |
| STR\_ACTION | “REDGIRO” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Source account number |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | Amount sent |
| STR\_PARAMETER\_5 | Recipient cell phone number |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**Invest in Time Deposit**

|  |  |
| --- | --- |
| STR\_ACTION | “INVEST\_TIME\_DEPOSIT” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Source account number |
| STR\_PARAMETER\_3 | Time deposit account number |
| STR\_PARAMETER\_4 | Amount deposited |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**Balance Inquiry (for account)**

|  |  |
| --- | --- |
| STR\_ACTION | “BALANCE\_INQUIRY\_ACCOUNT” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | account number |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | (not used) |

**Balance Inquiry (for credit card)**

|  |  |
| --- | --- |
| STR\_ACTION | “BALANCE\_INQUIRY\_CARD” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | credit card number |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | (not used) |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | (not used) |

**Balance Inquiry (for investments)**

|  |  |
| --- | --- |
| STR\_ACTION | “BALANCE\_INQUIRY\_INVESTMENT” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | account number |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | Number of items in response |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | (not used) |

**Transaction History Request (for accounts)**

|  |  |
| --- | --- |
| STR\_ACTION | “TRANSACTION\_HISTORY\_ACCOUNT” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | account number |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | Number of transactions in response |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | (not used) |

**Transaction History Request (for credit cards)**

|  |  |
| --- | --- |
| STR\_ACTION | “TRANSACTION\_HISTORY\_CARD” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | credit card number |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | Number of transactions in response |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | (not used) |

**Cell Phone Top-Up**

|  |  |
| --- | --- |
| STR\_ACTION | “TOP\_UP” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Source account number |
| STR\_PARAMETER\_3 | Telephone number |
| STR\_PARAMETER\_4 | Amount |
| STR\_PARAMETER\_5 | Carrier ID |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**Take Loan**

|  |  |
| --- | --- |
| STR\_ACTION | “TAKE\_LOAN” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | Loan account number (if available) |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | Amount |
| STR\_PARAMETER\_5 | Pre-approved amount |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | Type of authentication device |

**View Received Transfers**

|  |  |
| --- | --- |
| STR\_ACTION | “RECEIVED\_TRANSFERS” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | (not used) |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | Number of transfers in response |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | (not used) |

**View Sent Transfers**

|  |  |
| --- | --- |
| STR\_ACTION | “SENT\_TRANSFERS” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | (not used) |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | Number of transfers in response |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | (not used) |

**Request List of Alerts**

|  |  |
| --- | --- |
| STR\_ACTION | “QUERY\_ALERTS” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | (not used) |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | Number of alerts in response |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | (not used) |

**‘Contact’ request submitted (using the Contacto page)**

|  |  |
| --- | --- |
| STR\_ACTION | “CONTACT\_SUBMITTED” |
| STR\_PARAMETER\_1 | Customer RUT number |
| STR\_PARAMETER\_2 | (not used) |
| STR\_PARAMETER\_3 | (not used) |
| STR\_PARAMETER\_4 | (not used) |
| STR\_PARAMETER\_5 | First 80 characters of the message |
| STR\_PARAMETER\_6 | Transaction ID |
| STR\_PARAMETER\_7 | (not used) |

SAP will not provide a user interface to view the audit information stored. They can write their own queries or reports to view this data. SAP will provide some sample SQL to query the database.