

**Oracle FLEXCUBE Direct Banking**  
**Release 12.0.1.0.0**  
**Dashboard Widgets Customer Services**  
**User Manual**



**Part No. E52306-01**

## Table of Contents

1. Transaction Host Integration Matrix .....	3
2. Introduction - Dashboard Widgets .....	4
3. Recent Activity .....	6
4. My Transactions .....	8
5. Pending For Authorization .....	10
6. Last 10 Used Cheques .....	12
7. Session Summary .....	14
8. Logged In Users .....	16
9. RSS Feeds .....	17
10. Blackout – Next 7 Days.....	18
11. Notifications .....	19
12. Quick Tasks .....	21
13. Tools.....	22
14. Request Status .....	23
15. Foreign Exchange Deals .....	26

# 1. Transaction Host Integration Matrix

## Legends

<b>NH</b>	No Host Interface Required.
<b>★</b>	Host Interface to be developed separately.
<b>✓</b>	Pre integrated Host interface available.
<b>✗</b>	Pre integrated Host interface not available.

Transaction Name	FLEXCUBE UBS	Third Party Host System
Recent Activity	NH	NH
My Transactions	NH	NH
Last 10 Used Cheques	✓	★
Session Summary	NH	NH
Logged In Users	NH	NH
RSS Feeds	NH	NH
Blackout – Next 7 Days	NH	★

## 2. Introduction - Dashboard Widgets

Widgets are smaller windows which show data in an optimized form.

In a contemporary UI version of FLEXCUBE Direct Banking application, dashboard will have small widgets. These widgets will show minimal data related to main transactions. These widgets will also enable you to initiate transactions with minimal details.

Below **Dashboard** screen shows all the widgets displayed in it, followed by the explanation of each widget.

ORACLE WELCOME, SHAIKHNDRA CORPAUT0A0TH

Change Password | Own Account Transfer | Reminder | Session Summary | Sitemap | Logout

#### Currency Wise Position

Currency	Assets	Liabilities
GBP	617,284.75	0.00
<b>Total Assets:</b>	<b>617,284.75 GBP</b>	
<b>Total Liabilities:</b>		<b>0.00 GBP</b>

**Pending for Authorization**  
No Record found.

**Inward Remittance Inquiry**  
No records found, to search again please amend your inputs

#### Total Position

**Assets**

Account Type	Current Balance
Saving and Current Account	935,855.72 GBP
<b>Total Assets</b>	<b>935,855.72 GBP</b>

**Liabilities**

Account Type	Outstanding Balance
Saving and Current Account	1,025.37 GBP
<b>Total Liabilities</b>	<b>1,025.37 GBP</b>

#### Notifications

**Alerts** | **Messages**

**Request Status**

Reference No	Service Requested	Status
161100393078956	Reissue Transa...	Pending

**Last 10 Used Cheques**  
No Records Found.

**Quick Tasks**

- Pay Bills Now
- Request for a Cheque Book
- Foreign Exchange Rate
- Download Statement Now
- Transfer Funds Now
- Order Demand Draft
- Outward Remittance Inquiry
- Stop Payment Request

**Tools**  
Select [ ] [GO]

**Session Summary**

- 06-04-2013 16:13:23
- 06-04-2013 16:11:15
- 06-04-2013 12:22:36
- 05-04-2013 19:03:08
- 05-04-2013 15:21:51

**Blackout - Next 7 Days**  
Last Updated on 16:13 PM

**RSS Feeds**

**Bloomberg Bitcoin Boom: Is This the New Safe Hav**  
by Bloomberg - Apr 05, 2013  
Bitcoin Boom: Is This the New Safe Haven (Bloomberg) - Convergen Group Chief Strategist Nick Colas ...

**Jobs and the Labor Force: Where's the Real Decline? Bitcoin Boom: Is This the New Safe Haven? Millionaires Collected \$80M in Jobless Benefits During**

**Pay Bills**

Select a Biller  
Select a Biller [ ]  
Select Account  
Select Account [ ]  
Bill Number  
Bill Number [ ]  
Bill Date  
dd-MM-yyyy (dd-MM-yyyy)  
Payment Amount  
Payment Amount [ ]  
Click [here](#) to Add New Biller

**Transfer Funds**

From\*  
Select [ ]  
To\*  
Select [ ]  
Amount\*  
Narrative  
[ ]  
Make an Internal Transfer.

#### Account Balances

111111335-006-006005934

**Current Balance**  
195,848.23 GBP

**Amount on Hold**  
0.00 GBP

**Uncleared Funds**  
0.00 GBP

**Overdraft Limit**  
0.00 GBP

**Available Balance**  
195,848.23 GBP

**Minimum Balance**  
1,000.00 GBP

Last Updated On 16:14 PM

**Loan Rates**

- Long Term Loans With Moratorium
- Advance with Auto DSRB

**Exchange Rates**

1 GBP is equivalent

ZAR	10.280000
EUR	1.046000
AUD	1.567000
AED	0.198000
INR	66.810000
USD	1.420000
SGD	2.025000
BRL	2.590000
JPY	130.000000
HKD	10.880000

**Recent Activity**

- Domestic Account Transfer 05-04-2013 100.00 GBP
- Own Account Transfer 05-04-2013 100.00 GBP
- Pay Bill 25-03-2013 31.10 GBP
- Pay Bill 25-03-2013 10.01 GBP
- Pay Bill 25-03-2013 91.72 GBP

Last Updated on 16:13 PM

**My Transactions**

- Own Account Transfer 08-04-2013 1,200.00 GBP
- Domestic Account Transfer 05-04-2013 100.00 GBP
- Own Account Transfer 05-04-2013 100.00 GBP
- Pay Bill 25-03-2013 31.10 GBP
- Pay Bill 25-03-2013 10.01 GBP

Last Updated On 16:14 PM

**Logged In Users**

- Mr. CORP AUTH
- Mr. CORP INT
- Mr. Rian Suri Rian Suri
- Mr. CORP USER

Last Updated On 16:13 PM

**Reminders**

Register New Reminder | Reminder Schedule

#### Mini Statement

111111335-006-006005934

Date	Description	Debited / Credited	Amount
29-11-2012	brf	Dr	67.00 GBP
29-11-2012	FTCHORULE1	Dr	4.48 GBP
29-11-2012	INTERNAL FUND TRANSFER	Dr	133.00 GBP
29-11-2012	FTCHORULE1	Dr	4.48 GBP
29-11-2012	paylaterInternalFT	Dr	511.00 GBP

Note - Cr.Credit,Dr.Debit  
Last Updated On 16:14 PM

**Scheduled Transactions**

**Tomorrow (10)**

Reference Number	Source Account	Amount	Transfer Date
006FTN123250068	1111111335	963.00 GBP	30-11-2012
006FTN123250069	1111111335	973.00 GBP	30-11-2012
006FTN12340016	1111111335	123.00 GBP	30-11-2012
006FTN123250052	1111111335	850.00 GBP	30-11-2012
006FTOC123340071	1111111335	500.00 GBP	30-11-2012
006FTOC123340074	1111111335	360.00 GBP	30-11-2012
006FTOC123340075	1111111335	450.00 GBP	30-11-2012
006FTOC123340090	1111111335	259.00 GBP	30-11-2012
006FTOC123340091	1111111335	210.00 GBP	30-11-2012
006FTOC123340092	1111111335	744.00 GBP	30-11-2012

**This Week (1)**

**Later Future**

**Credit Line Utilisations**  
No records found, to search again please amend your inputs

**Foreign Exchange Deals**  
Record not Found

**Account Summary**

Current and Savings 196,848.23 GBP

Account Description	Current Balance	Balance in GBP	Mini Statement
111111335-006	195,848.23 GBP	195,848.23 GBP	Mini Statement
1111111405-006	591.00 GBP	591.00 GBP	Mini Statement
1111111407-006	511.00 GBP	511.00 GBP	Mini Statement

**Term Deposits** 123.00 GBP




### 3. Recent Activity

This widget displays the last 5 performed transactions in a minimalistic form.

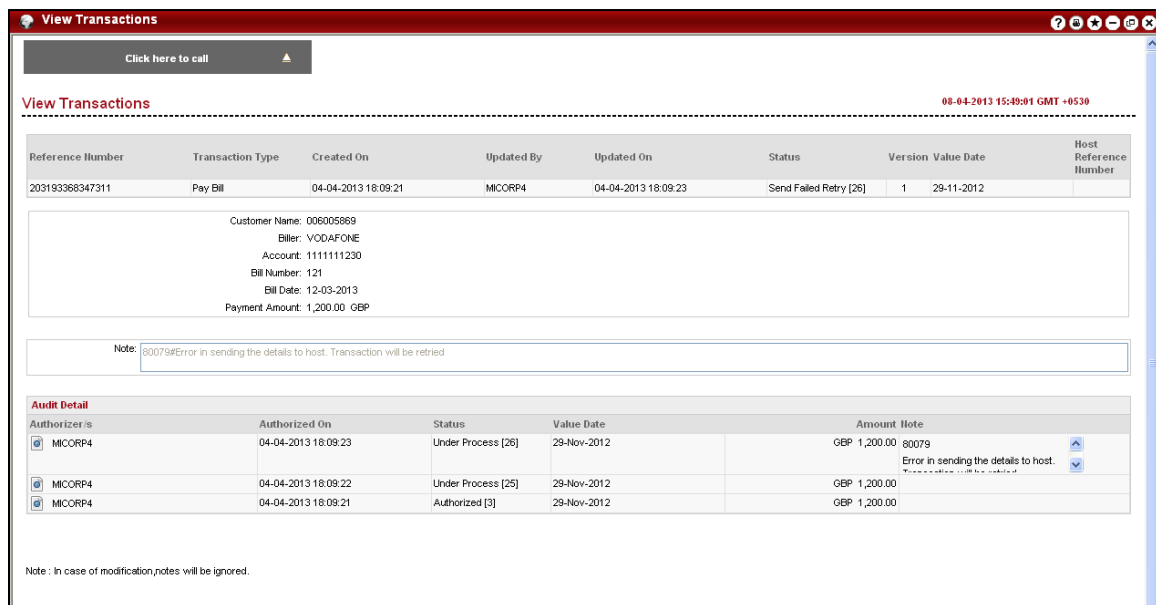
#### Widget – Recent Transactions

Recent Activity		
Pay Bill	04-04- 2013	1,200.00 GBP
Initiate LC	19-03- 2013	5,000.00 GBP
Export Bill Under LC	19-03- 2013	10,000.00 GBP
Export Bill Under LC	19-03- 2013	10,000.00 GBP
Initiate LC	19-03- 2013	10,000.00 GBP
Last Updated on 15:39 PM		

1. Last 5 transactions along with their initiation or last updating date are displayed in Recent Transactions widget as shown above.

1. Click any of the displayed transactions. The system displays that transaction in detail in **View Transactions** screen.
2. Click the ,  icons in the widget to refresh and minimize the widget respectively.
3. Click the  icon in the widget. The system displays the **View Transactions** screen.

## View Transactions



The screenshot shows the 'View Transactions' window with a dark red header. Below the header is a 'Click here to call' button. The main content area is titled 'View Transactions' and includes a timestamp '08-04-2013 15:49:01 GMT +0530'. A table lists transaction details, followed by a section for customer information and a note about a sending error. An 'Audit Detail' table shows the authorization history for the transaction.

Reference Number	Transaction Type	Created On	Updated By	Updated On	Status	Version	Value Date	Host Reference Number
203193368347311	Pay Bill	04-04-2013 18:09:21	MICORP4	04-04-2013 18:09:23	Send Failed Retry [26]	1	29-11-2012	

Customer Name: 006005869  
 Biller: VODAFONE  
 Account: 1111111230  
 Bill Number: 121  
 Bill Date: 12-03-2013  
 Payment Amount: 1,200.00 GBP

Note: 80079#Error in sending the details to host. Transaction will be retried





Authorizer/s	Authorized On	Status	Value Date	Amount	Note
<input checked="" type="checkbox"/> MICORP4	04-04-2013 18:09:23	Under Process [26]	29-Nov-2012	GBP 1,200.00	80079 Error in sending the details to host.
<input checked="" type="checkbox"/> MICORP4	04-04-2013 18:09:22	Under Process [25]	29-Nov-2012	GBP 1,200.00	
<input checked="" type="checkbox"/> MICORP4	04-04-2013 18:09:21	Authorized [3]	29-Nov-2012	GBP 1,200.00	




Note : In case of modification, notes will be ignored.

## 4. My Transactions

This widget displays the last 5 initiated transactions in a minimalistic form.

### Widget – MyTransactions

My Transactions		 
 Lookup Mainten..	31-03-2011	
 Lookup Mainten..	31-03-2011	
 Lookup Mainten..	31-03-2011	
 Export Bill Un..	31-03-2011	
	45,433.00 USD	
 Direct Collect..	31-03-2011	
	5,000,000.00 USD	
Last Updated On 13:00 PM		

1. Last 5 transactions along with their initiation or last updating date are displayed in My Transactions widget as shown above.
2. Click any of the displayed transactions. The system displays that transaction in detail in **View Initiated Transactions** screen.
3. Click the ,  icons in the widget to refresh and minimize the widget respectively.
4. Click the  icon in the widget. The system displays the **View Initiated Transactions** screen.



View Initiated Transactions

View Initiated Transactions 15-04-2011 13:00:00 GMT +0530

View By Transaction Status ▾




[Initiated Transactions](#) | 
 [View Drafts/Templates](#) | 
 [Transactions To Authorize](#) | 
 [View Transactions](#)




Transaction Type	Status	Count	
Attach Documents	<a href="#">Initiated</a>	1	5.26%
Customer Acceptance	<a href="#">Initiated</a>	1	5.26%
Direct Collection	<a href="#">Initiated</a>	1	5.26%
Export Bill Under LC	<a href="#">Initiated</a>	1	5.26%
Export Collection	<a href="#">Initiated</a>	1	5.26%
Initiate LC	<a href="#">Initiated</a>	1	5.26%
Initiate Outward Guarantee	<a href="#">Initiated</a>	1	5.26%
LC Amendment Initiate	<a href="#">Initiated</a>	1	5.26%
Lookup Maintenance	<a href="#">Initiated</a>	2	10.53%
	<a href="#">Accepted</a>	4	21.05%
Outward Guarantee Amendment	<a href="#">Initiated</a>	1	5.26%
Own Account Transfer	<a href="#">Initiated</a>	1	5.26%
Pay Bill	<a href="#">Initiated</a>	1	5.26%
Trade Lookup Delete	<a href="#">Accepted</a>	1	5.26%
Unmark Account as Parent	<a href="#">Accepted</a>	1	5.26%

## 5. Pending For Authorization

This widget displays the last few (as configured in the system) transactions waiting for user's approval/authorization.

### Widget – Pending For Authorization

Pending for Authorization   		
Own Account Tr..	25-04-2012	1,120.00 GBP

1. Last 'n' transactions along with their initiation or last updating date and transaction amount are displayed in Pending For Authorization widget as shown above.
2. Click any of the displayed transactions. The system displays that transaction in detail in **View Pending Authorization Transactions** screen.
3. Click the ,  icons in the widget to refresh and minimize the widget respectively.
4. Click the  icon in the widget. The system displays the **View Authorization Transactions** screen.

### View Authorization Transactions

**View Authorization Transactions** 25-04-2012 22:28:30 GMT +0530

View By:

[Initiated Transactions](#) [View Drafts/Templates](#) [Transactions To Authorize](#) [View Transactions](#)

**Transactions To Authorize**

Transaction Type	Status	Count	
Own Account Transfer	Initiated	1	<div style="width: 100%; height: 10px; background-color: red;"></div> 100%

## 6. Last 10 Used Cheques

This widget displays the cheque status inquiry in a minimalistic form. It will display last 10 cheques marked as used across all your accounts.

### Widget – Last 10 Used Cheques

Last 10 Used Cheques				
▼		QT200178104		
		26		100.00 GBP
▼		QT100177402		
		121		500.00 USD
▼		1000000796		
		276		150.00 GBP
Last Updated on 13:00 PM				

1. Click the Account Number. The system will display cheques under that account which are marked as used. It will also display amount of the cheque with the currency.
2. Click the icon. The system displays the **Cheque Status Inquiry** screen to enquire about cheque status.  
OR  
Click the , icons to refresh and minimize the widget respectively.

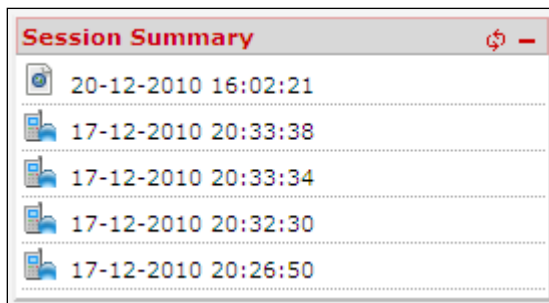
### Cheque Status Inquiry




<b>Cheque Status Inquiry</b>		15-04-2011 13:00:00 GMT +0530	
<small>The Cheque Status shall be displayed if the Cheque is a valid cheque. Additional information for the Cheque shall be available if the Cheque has been presented to the bank.</small>			
Select Account: *	<input type="text" value="Select"/>		
Status: *	<input type="text" value="Select"/>		
From Date:	<input type="text"/>	To Date:	<input type="text"/>
Search By Cheque Number	<input type="checkbox"/>		
			<input type="button" value="Submit"/>

## 7. Session Summary

This widget displays the session summary in a minimalistic form. This widget displays last 5 login session dates and time when session was started. Session summary will be displayed using preferred time zone of the user.

### Widget – Session Summary



1. Click the  icon. The system displays **Session Summary** screen with earlier login details.  
OR  
Click the ,  icons to refresh and minimize the widget respectively.

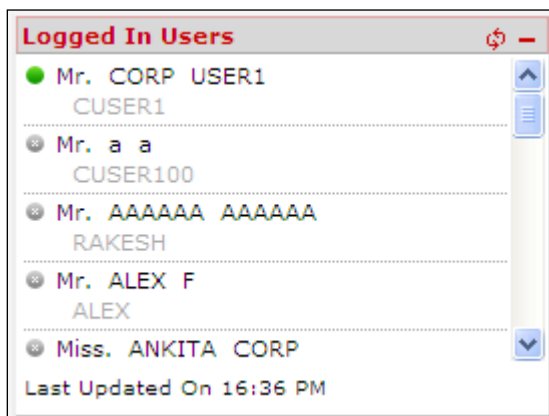
Session Summary



Session Summary		20-12-2010 16:15:38 GMT +0530	
Channel User Id	MIRETAIL	Session Start	20-12-2010 16:02:21 GMT +0530
Transaction Name	Status	Transaction Date	
Login (LGN)	Success	20-12-2010 16:02:21 GMT +0530	
Transactions (VAT)	Success	20-12-2010 16:02:41 GMT +0530	
Loan Interest Rates (LIR)	Success	20-12-2010 16:02:42 GMT +0530	
Mailbox (IMS)	Success	20-12-2010 16:02:45 GMT +0530	
Transaction Blackout (TBO)	Success	20-12-2010 16:02:50 GMT +0530	

## 8. Logged In Users

This widget displays the list of other users having the same customer id. It also displays the logged in status of those users.

### Widget – Logged In Users



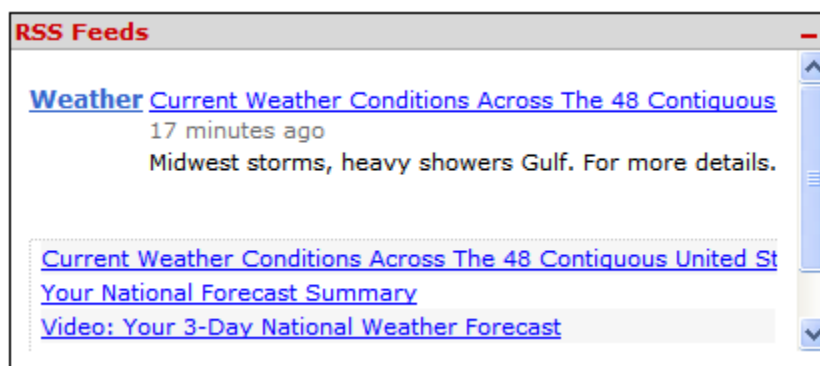
1. Widget displays green icon for logged in user and grey icon for offline users. User name with their user id is also displayed as shown in the above screen.
2. Click the ,  icons to refresh and minimize the widget respectively.




## 9. RSS Feeds

This widget displays the integrated RSS Feeds. RSS (Real Simple Syndication) is a relatively new and easy way to distribute content via the internet. This widget mainly displays frequently updated works such as blog entries, news headlines, weather forecast etc in a standardized format.

### Widget – RSS Feeds

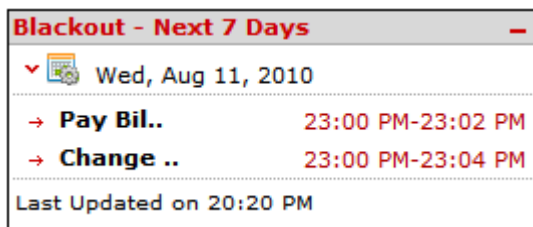




1. Click any of the links. The system will display its contents in a new window.
2. Click the  icon to minimize the widget.

## 10. Blackout – Next 7 Days

This widget displays blackouts planned for next 7 days. You will not be able to access that transaction for the specified blackout period.

### Widget – Blackout – Next 7 Days



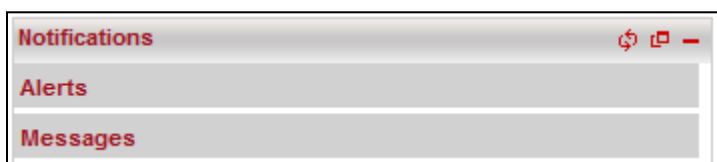
1. Click the  icon. The system displays transaction name for which the blackout has been set and also the time period of the blackout.
2. For e.g. as shown in the above screen, blackout has been set for Pay bill and Change Password transactions. Pay Bills transaction will not be accessible during the period 23.00 PM to 23.02 PM on Aug 11 and Change Password transaction will not be accessible during the period 23.00 PM to 23.04 PM on Aug 11.
1. Click the  icon to minimize the widget.

## 11. Notifications

This widget displays notifications that are generated for the user. The Notifications widget consist of Alerts, Tasks, Mail Messages, Bulletins Received.

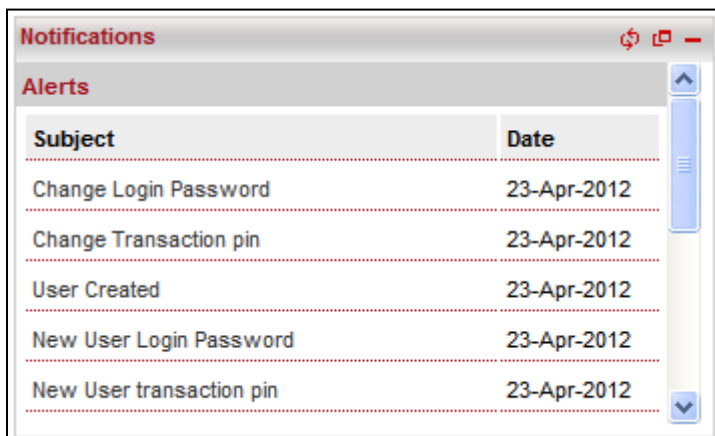
There are links provided on the subject/title of each Alert, Message and Bulletin. On clicking on a link, the mailbox will be displayed with details of that alert, message or bulletin

### Widget – Notifications






1. Click the Alerts link. The system displays alerts registered for the user as shown below.

## Widget – Notifications



The screenshot shows a window titled "Notifications" with a sub-header "Alerts". Below the header is a table with two columns: "Subject" and "Date". The table contains six rows of data, all dated "23-Apr-2012". The subjects are: "Change Login Password", "Change Transaction pin", "User Created", "New User Login Password", and "New User transaction pin". The window has standard OS controls (refresh, minimize, maximize) in the top right corner and a scrollbar on the right side.

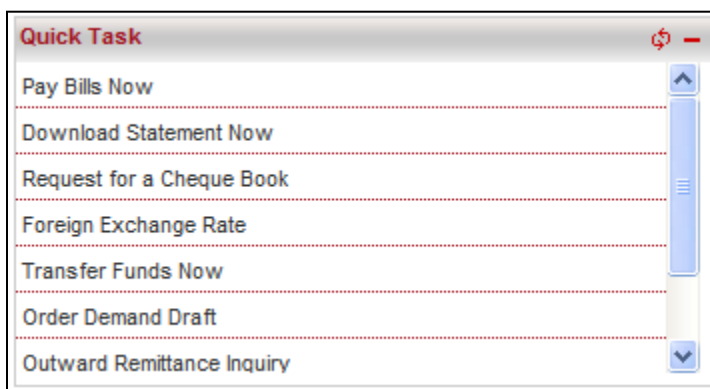
Subject	Date
Change Login Password	23-Apr-2012
Change Transaction pin	23-Apr-2012
User Created	23-Apr-2012
New User Login Password	23-Apr-2012
New User transaction pin	23-Apr-2012



2. Similarly Click the Messages link to view the messages.
3. Click the ,  icons in the widget to refresh and minimize the widget respectively.
4. Click the  icon in the widget. The system displays the **Mailbox** screen.

## 12. Quick Tasks

This widget allows the user to easily access the given transactions without having to navigate through the menu. Transactions to be displayed as Quick Tasks will be predefined. Only those transactions will be displayed in the user's widget for which the user has access.

### Widget – Quick Tasks

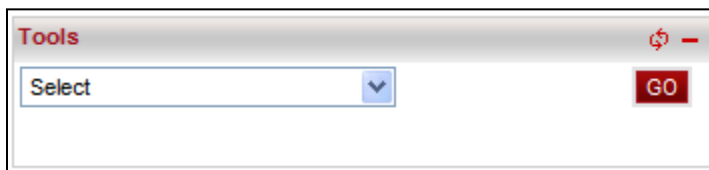




5. Click any of the transaction links. The system opens that transaction in a new window.
6. Click the ,  icons in the widget to refresh and minimize the widget respectively.

## 13. Tools

This widget allows the user to easily access the tools available in the application without having to navigate through the menu. Transactions to be displayed as Tools will be predefined as per the user type combination. Only those transactions will be displayed in the user's widget for which the user has transaction access.

### Widget – Tools

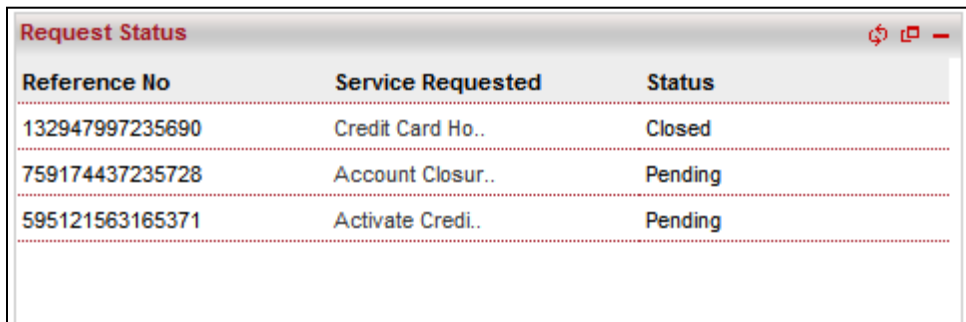


1. Select any tools/transaction from the dropdown.
2. Click the **GO** button. The system displays selected transaction in a new window.
3. Click the ,  icons in the widget to refresh and minimize the widget respectively.

## 14. Request Status

This widget will display, in the case of Retail Users, latest status of service requests initiated by the user. In the case of Corporate Users, this widget will display status updations of all service requests initiated by users belonging to the customer ID, to which the user has view access as per mandates set. Hence, status updations of service requests as available in the, 'View Transactions' screen of User Authorisations dashboard will be displayed in the Corporate User's dashboard.

### Widget – Request Status



Reference No	Service Requested	Status
132947997235690	Credit Card Ho..	Closed
759174437235728	Account Closur..	Pending
595121563165371	Activate Credi..	Pending

### Field Description




Field Name	Description
------------	-------------

Field Name	Description
<b>Reference No</b>	[Display] This column displays the ID of the request generated by the system at the time of request initiation.
<b>Service Requested</b>	[Display] This column displays the type of request.
<b>Status</b>	[Display] This column displays the current status of the service request.

- Click on any of the transaction in Service Requested column. The system will display that transaction In View Initiated Transactions screen as shown below.

### View Initiated Transactions

View Initiated Transactions								25-04-2012 21:08:05 GMT +0530
Reference Number	Transaction Type	Created On	Updated By	Updated On	Status	Version	Value Date	Host Reference Number
759174437235728	Account Closure	10-04-2012 12:19:27	SALRETAIL	10-04-2012 12:19:27	Pending [60]	1		
Account: 7853448779422 Balance: 27000.000000 Reason: Migrating to another country								
Note: <input type="text"/>								
Audit Detail								
Authorizer/s	Authorized On	Status	Value Date	Amount	Note			
<input checked="" type="checkbox"/> SALRETAIL	10-04-2012 12:19:27	Pending [60]			0			
<input checked="" type="checkbox"/> SALRETAIL	10-04-2012 12:19:27	Authorized [3]			0			

- Click the ,  icons in the widget to refresh and minimize the widget respectively.
- Click  icon. The system displays **View Initiated Transaction** screen as shown below.



View Initiated Transactions

25-04-2012 21:18:28 GMT +0530

View By Transaction Status

**Initiated Transactions** | **View Drafts/Templates**

**Initiated Transactions**

Transaction Type	Status	Count	
Amend Term Deposit	Accepted	4	6.78%
	Rejected	8	13.56%
Demand Draft-Pay Order Request	Accepted	2	3.39%
International Account Transfer	Rejected	1	1.69%
International Transfer Beneficiary	Accepted	1	1.69%
Multiple Internal Transfer	Rejected	4	6.78%
	Under Process	1	1.69%
Open Term Deposit	Rejected	12	20.34%
	Accepted	6	10.17%
Own Account Transfer	Rejected	6	10.17%
	Completed	3	5.08%
	Under Process	1	1.69%
Pay Bill	Rejected	1	1.69%
	Under Process	1	1.69%
Redeem Term Deposit	Rejected	3	5.08%
	Accepted	3	5.08%
Standing Instruction Cancellation	Rejected	1	1.69%
Stop Or Unblock Cheque Request	Rejected	1	1.69%

## 15. Foreign Exchange Deals

This widget will display minimal details of all the foreign exchange deals available to the user. The deals will be grouped by the value date and will be in chronological order.




### Widget – Foreign Exchange Deals

Foreign Exchange Deals						
Customer Id	Buy Currency- Sell Currency	Value Date	Deal Type	Amount	Utilized Amount	Rate
004004370	USD-GBP	13-04-2012	Buy	17,176.00 USD	Nil	1.7176

### Field Description

Field Name	Description
<b>Customer ID</b>	[Display] This column displays the Customer id for which the deal is booked.
<b>Buy Currency - SellCurrency</b>	[Display] This column displays the currency pair of the deal.

Field Name	Description
<b>Value Date</b>	[Display] This column displays the Value Date of the deal.
<b>Deal Type</b>	[Display] This column displays the Type of deal - buy or sell.
<b>Amount</b>	[Display] This column displays the Amount of the deal.
<b>Utilized Amount</b>	[Display] This column displays the Amount of the deal that has been utilized along with the currency.
<b>Rate</b>	[Display] This column displays the Rate at which the deal was made.

1. Click the ,  icons in the widget to refresh and minimize the widget respectively.
2. Click  icon. The system displays **View Deal Details** screen as shown below.

### View Deal Details

**View Deal Details** 25-04-2012 23:39:42 GMT +0530

---

Customer Id:

Buy Currency:

Deal Booking Date From:

Deal Type:

Sell Currency:

Deal Number:

Value Date:



Oracle FLEXCUBE Direct Banking  
Dashboard Widgets Customer Services User Manual  
October 2012  
Version Number: 12.0.1.0.0

Oracle Financial Services Software Limited  
Oracle Park  
Off Western Express Highway  
Goregaon (East)  
Mumbai, Maharashtra 400 063  
India

Worldwide Inquiries:

Phone: +91 22 6718 3000

Fax: +91 22 6718 3001

[www.oracle.com/financialservices/](http://www.oracle.com/financialservices/)

Copyright © 2008, 2012, Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

### **Hardware and Software**

**ORACLE**

**Engineered to Work Together**