



Telecoms Billing

Manual

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Redware Research Limited

Redware Research Limited is a software house specialising in solutions for **Microsoft CRM** and **Sage Accounting**. We are a Microsoft Registered Partner and have Sage Developer status and are based on the south coast of England and welcome telephone enquiries on **0845 3010 444** or **+442031799444**.



We specialise in **accounting** and **billing** solutions and have add-on software for Microsoft CRM to integrate your accounting system with CRM. We currently have solutions for Sage accounting and QuickBooks. We offer a consultancy package to adapt our software to integrate with any accounting package.

Our 100-page **Microsoft CRM 4.0 User Handbook** is available [online](#) to help you get started and explore all the features of Microsoft CRM including the sales, marketing, and service areas. You can read and print out chapters online or buy the book. Please take a look and give us some feedback.

Redware has developed a range of software add-ons for Microsoft CRM covering a broad range of functionality including **CTI telephony** connection to TAPI compliant telephone systems, **SMS text messaging** to mobile phones, and **UK and Irish company credit check** using financial data from Companies House.

We also sell software to help handle billing requirements for users of the Sage 50 accounting system which includes our **SYNC Accounting** web site application which makes your sales history available over the internet as part of a customer portal and **SYNC Billing** to upload invoices into Sage from a spreadsheet. We also offer a bespoke **Telecoms Reseller** package based on our technology.

Our non-commercial focus is to get young children aged 8-12 programming with the **Scratch** programming language available free from the Lifelong Learning Group at MIT and we have resources for parents and teachers available on our [website](#). We encourage you to empower your children with programming skills using our training videos and lesson plans.

Please contact us with any enquiries on any of our products or for a discussion on how our consultancy service might help integrate your business systems and processes.

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Introduction

Thank you for purchasing or evaluating our Telecoms Reseller Billing software. This document describes the software and we are very happy to demonstrate it to you on request. Please call Stamati Crook on **0845 3010 444**.

The **Telecoms Billing Overview** describes the business processes required to produce bills from raw call details records and introduces some billing terminology used throughout the document and noted in the **glossary**. Please start here if you are new to telecoms billing.

This is followed by a **software overview** which explains how our software is used to perform billing. We typically charge a setup fee which includes our time to make sure you complete the first two billing months successfully and you need to appoint a **billing manager** within your organisation to understand the processes described here.

Our software is hosted and comprises a website for you to enter customer information and an area for you to upload raw call details files. These files are typically processed once a day and allow you access to all the information required to successfully bill all calls against a customer.

The final output is a PDF and a call details file which is automatically emailed to each customer and an data files with all the transactions to enter into your accounting and payment systems. We provide full automation to the Sage 50 accounting package.

Please get your billing manager to read through the documentation and call us to arrange a test site for you to experience the data entry side of the application first hand.

Telecoms Billing Overview

Telecoms Billing Systems process files of call data by matching each call against a customer record and rating it against a pricelist to produce a cost for each call.

The data often arrives from a third party as a daily or monthly data file known as a CDR file (see the glossary below for more terms). This file usually contains one record for each call containing the following minimum level of information:

- Number Dialed.
- Originating Number (CLI) used to identify the customer.
- Duration in seconds or tenths of a second.
- Date and Time of the Call.

The billing process takes each call and first matches the originating number against the customer database to discover the customer and pricelist to apply to this call. Each call is then rated against the pricelist to produce a retail price for the call. The pricelist contains the following parameters used to calculate the retail price:

- A retail price per second for the call.
- The retail price may differ for standard, economy and weekend time zones.
- A setup charge that is added to each call (some calls will have only a setup charge and no price per second).
- A rating interval usually set to one second but sometimes rounding up the duration to the nearest minute so the customer is billed 120 seconds duration for a 85 second call for example.

They may be issues that prevent the matching and rating of an individual call. These problem calls are placed in a suspense file for the billing manager to look at. Each call in the suspense file may be flagged with a suspense code that illustrates the problem encountered. For example, there may be issues matching the originating number for a new line against a customer record because the number has not been entered into the customer database (part of a process known as provisioning).

Call details records may come from different sources depending on the technical options employed by the reseller who may provide VOIP services with one supplier and traditional telecoms services through another. An additional consideration in the UK for some vendors is the processing of additional call details for customers using BT lines which arrive in a special DEDES call details file which needs processing alongside other CDR data.

Part of the job of a billing manager is to look at the suspense file regularly and then resolve any issues and reprocess the suspense files. Billing often takes place on a particular day each month and bills are produced for each customer only once all the calls in the suspense file have been re-rated or written off. Part of the billing process is to perform a reconciliation where a number of bills are checked for accuracy and the totals for the month are checked against the telecoms provider invoice and validated against previous months to look out for any problems.

The actual billing run often involves the creation of an invoice and a data file containing the monthly call data for each customer. A summary may also be imported into the accounting system.

One final thing to note about billing is that it is often a monthly process that uses a call detail file created from a telecoms provider which itself has put the call details through their billing process. The provider may also provide a daily file or one may be available from local

equipment (from an asterisk box or a local telecoms switch). It is important to monitor the daily files for fraud in case a customer's system has been compromised. Fraud can occur over a bank holiday where a phone system is compromised and used to set up a call shop over a weekend which can result in thousands of pounds of fraudulent calls being made. If no other process is available, the billing system might also be used for monitoring fraud by processing daily files although the actual customer bills might use the monthly call details file for producing the actual bills.

Preparation

A good deal of preparation is required before a monthly billing run can be completed successfully. It is possible to simply run a call details file through the billing system and watch all the call records drop into the suspense file which will provide a list of every action that needs to be performed to resolve billing issues for each call. A more efficient process is to prepare the following data for provisioning into the billing database:

- Customers need to be entered into the database together with details of any Originating Numbers to be used to match against the call detail records. Additional information may need to be billed each month for rental of handsets and a maintenance fee or other system costs.
- Pricelist information needs to be maintained for each destination called by the customer. The rating process should place calls to any destinations that do not have a valid retail price into the suspense file.
- Many telecoms providers will include the cost information for each call in their call details record which can be used to double check that each call is being billed at a profit. An alternative is to create a pricelist for call costs and to rate each call for both retail and cost prices as part to aid the reconciliation process.
- Call details may originate from different source each of which may have a different format. The pre-processing of each data file into a format that can be processed by the billing system is called mediation and needs to be set up by the technical team before billing can commence. This may also require the identification of additional information for a call such as whether it was a data or voice call.

Suspense

A large part of the responsibility of a Billing Manager is to eliminate calls from the suspense file. Each of these calls represents a call that cannot be billed to a customer and therefore a potential loss of revenue. Some of these calls may be due to an error by the telecoms provider and a mechanism might be required to claw this money back from the provider if the call cannot be billed.

A variety of reasons can prevent a call being matched and rated successfully. Here are some of the typical suspense reasons that are encountered each month:

- Missing CLI (Originating Number) where no match is found in the customer database.
- Retail price of the call is less than the cost obtained using the cost pricelist or from the provider's cost data.
- Invalid destination number.
- Retail price not found in the database.

Each of these issues needs to be resolved and the suspense files re-rated ready for billing. The Billing Manager needs to clear all the suspense or write off the call records prior to completing the billing process.

Reconciliation

The reconciliation process is usually performed by the Billing Manager, maybe together with the Accounts department, and involves a series of cross-checks to make sure that there have been no errors during this month's billing process.

Each company devises their own checks some of which might be taken from the list below:

- A justification is required for each call written off in the suspense file and occasionally revenue needs to be reclaimed from the provider.
- Each individual call might be checked against the actual cost charged by the provider or against a cost pricelist.
- A percentage of the monthly bills for each customer should to be checked manually.
- The monthly totals for each customer (minutes and value) should be checked against historical spending patterns to look for any discrepancy (or fraud).
- Total duration and number of calls per destination can be checked against historical trends.
- The total duration and number of calls can be checked against the provider's invoice and often broken down by destination.
- Totals for items other than calls needs to be checked against historical trends both by customer and as totals by product type.

Reconciliation is critical to the billing process and any errors in billing needs to be identified before the bills are sent out to the customers. Sometimes the monthly billing run may need to be repeated (using a backup of the database) if a major error is encountered.

Billing

The final stage in the billing process once reconciliation is complete is the creation of the customer bills and their fulfilment by sending out emails or importing data into the accounting system.

This final stage typically involves some or all of the following:

- Creation and emailing of a spreadsheet and maybe a summary sheet or PDF containing call details for each customer.
- Importing of billing information into the accounting system for the production of invoices.
- Interfacing with a payment system (such as direct debit in the UK) for payment processing.

Billing is an endless cycle and processing of daily call details and suspense may continue during the billing process or immediately once billing is complete in preparation for the next month of bills. Larger companies may need to stagger billing into a weekly process for different groups of customer to regulate the Billing Manager's workload or level out the cashflow.

Software Overview

This document describes the process of implementing and running the Telecoms Billing System from Redware Research Limited. Please read our Overview on Telecoms Billing if you need a refresher on the meaning of some of the terms used in this document – mediation, provisioning, matching and rating.

Our software is a hosted system so you do not need to invest in servers or database infrastructure to run your billing. Billing is usually a monthly process which creates two files that can be emailed automatically to each customer:

- A PDF document shows a summary of call charges together with a list of any monthly charges such as line or equipment rental and internet hosting charges.
- A data file in CSV format containing a list of all the calls made during the month together with the destination and prices.

A summary data file of all the items billed for all customers is also produced for you to import into your accounting systems and we provide software to import this directly into the Sage 50 accounting package as product invoices or as sales transactions. We also provide utilities to help you send accounting data on to your payment provider to process direct debits or credit card payments for example.

The billing process requires you to provision the billing database with all the information required to match and rate each call. The calls themselves are loaded onto our server from your telecoms provider or from your own equipment. You can load a call details file directly from an asterisk box or your own telecoms switch for processing through the billing system or use a monthly call details file created by your telecoms provider.

Call data is processed through the system and problem calls that have data missing from the billing database are passed into a suspense file for the person appointed your Billing Manager to view and fix. Typical issues encountered on a daily basis might be the need to add an Originating Number and Pricelist against a customer record once a new line has become active or the need to enter a retail and cost price for a new destination that has not been encountered before.

The Billing process in general is described in our Telecoms Billing Overview document and our approach detailed below.

Our approach to implementation involves a setup process where we take you through the mediation and preparation phases so that we assist you to complete the first billing run. We also assist and guide you with telephone support for a second month before leaving your billing manager in control of the process. We then charge you a minimal support fee in case of new issues arising so you can request our help once a month a few days before your billing run or purchase consultancy days from us if you need further help (for example to integrate a new source of data when you change telecoms provider).

Once all the initial information has been entered, we can process the call data through the billing system to create the first suspense files. We then need to resolve all the suspense issues together with your Billing Manager. This approach is iterative so that we can prepare most of the data with the initial upload and then resolve any issues using the website gradually as the errors appear as the each set of calls is processed.

A sample screenshot from the website is shown below. Customer care staff can change customer details and add service details (Originating Numbers) or packages of monthly costs to each customer as well as view past billing history. This is the method of specifying provisioning data after the initial preparation phase.

search customer services discounts switch bills sage

customer

customer REDP
company redware research ltd

- service report
- add cli
- add translation
- add package
- add product

lines

number	match	name	product	provider	start	finish	active	pricelist
<u>01273774537</u>	01273774537	Stamati Crook	IDA	Telecom IT	20040502		<input checked="" type="checkbox"/>	
<u>01483410188</u>	01483410188	Nick Philips	IDA		20051018		<input checked="" type="checkbox"/>	
<u>02031799444</u>	02031799444				20071101		<input checked="" type="checkbox"/>	BTTrade
<u>02031799445</u>	02031799445	Stamat Test			20071205		<input checked="" type="checkbox"/>	
<u>02086070421</u>	02086070421	Peter McKeever	IDA		20050901		<input checked="" type="checkbox"/>	
<u>08453790300</u>	08453790309	Services for Redware			20080111		<input checked="" type="checkbox"/>	

number translation

number	destination	name	product	start	finish	active
<u>08453010444</u>	01273774537	NGN - 08453010444	NGN	20000101		<input checked="" type="checkbox"/>

packages

There are no packages for this customer.

products

product	frequency	description		quantity	unit price	start	finish	active
<u>ADSL</u>	Month	Testing		1.0000	22.5000	20070129	20070330	<input type="checkbox"/> active
<u>TELMMAINT</u>	Once	12 months maintenance from today		1.0000	400.0000	20070201	20070201	<input type="checkbox"/> active

Suspense reports are available as spreadsheet files and have a different format according to the suspense code. An example is shown below where calls have a retail price which is less than the cost price. The options for this category of suspense is to change either the retail price or the cost price and rerate the calls or to accept the calls as they are for billing. Sometimes the calls need to be written off and perhaps the telecoms provider contacted for a refund as these calls cannot be billed.

15	UK - Mobile - Hutchison 3G UK Ltd (3)	Openreach	1	SILVER Parasol	1	29	0.081	0.085	0.081	20091028	20091028	93	NPRICE less than NCOST
16	UK - Mobile - Hutchison 3G UK Ltd (3)	Openreach	2	SILVER Parasol	1	24.2	0.047	0.071	0.047	20091027	20091027	93	NPRICE less than NCOST
17	UK - Mobile - O2 (UK) Limited	Openreach	2	SILVER Parasol	4	146.5	0.116	0.342	0.165	20091002	20091029	93	NPRICE less than NCOST
18	UK - Mobile - O2 (UK) Limited	Openreach	3	SILVER Parasol	5	283.2	0.189	0.66	0.296	20091010	20091018	93	NPRICE less than NCOST
19	UK - Mobile - Orange	Openreach	2	SILVER Parasol	5	662.7	0.551	1.601	0.74	20091008	20091027	93	NPRICE less than NCOST
20	UK - Mobile - T-Mobile (UK) Limited	Openreach	2	SILVER Parasol	5	939.7	0.78	2.192	1.176	20091001	20091027	93	NPRICE less than NCOST
21	UK - Mobile - Vodafone Ltd	Openreach	2	SILVER Parasol	7	963.5	0.805	2.248	0.983	20091008	20091029	93	NPRICE less than NCOST
22	UK - Mobile - Vodafone Ltd	Openreach	3	SILVER Parasol	2	217.4	0.18	0.507	0.22	20091003	20091017	93	NPRICE less than NCOST
23	UK - Speaking Clock	Openreach	1	Australia Special Rate + LCC Low Retail	3	15.7	2.07	0.894	2.07	20091001	20091008	93	NPRICE less than NCOST
24	UK - Speaking Clock	Openreach	1	BRONZE Parasol	1	7.4	0.69	0.298	0.69	20091001	20091001	93	NPRICE less than NCOST

Our approach to the following tasks and processes is detailed below:

- The preparation phase involves the initial provisioning of customer details together with the list of their originating numbers and additional monthly charges.
- Pricelists need to be created for both cost and retail pricing by destination.
- We take a look at your call details files (you may have several sources of call data) and specify the mediation process for each format so that you can upload the call data successfully into the billing database.
- At this point, you are in a position to process call details through the system. Any problems with individual calls results in them being placed in a suspense file. You receive an email containing a spreadsheet with summary information for each suspense code so that the billing manager can take the required action and then re-rate the call data.

- Reconciliation reports are available that summarise the billing activity for the current month so you can cross-check against provider invoices and historical trends before completing the monthly billing. Most Billing Managers also physically check a number of customer bills for accuracy.
- The final billing process results in an email going out to each customer and integration with your accounting and payment systems.
- Billing is a monthly process and you also need to consider daily monitoring of call data to monitor and anticipate issues with fraud.

Preparation

We usually help you with the initial provisioning of the system by asking you to prepare spreadsheets containing the data we require to bill the call details. We provide you with sample spreadsheets which you complete and we upload into the database:

- A spreadsheet of all customers is required each with an account number. We can create this spreadsheet automatically from the Sage 50 accounting database (you can delete any customers not required in the billing system).
- We provide you with a spreadsheet of all the possible destinations and you enter as many of the cost prices as you can. We can sometimes massage the data from your provider if you have pricing data in a suitable format for us to process automatically.
- You can create a retail price tariff directly from a cost tariff by copying the cost tariff and applying a 20% mark up for example. You then add specific retail pricing for any important destinations such as UK national and mobile calls and you can create as many pricelists as you like.
- You can upload the originating numbers for each customer from a spreadsheet or use the website to enter this information alongside any monthly billing costs for the customer. You can also specify the pricelist against the customer or each originating number so that you apply different pricelist for traditional telephony and VOIP calls.
- We help you define monthly packages in the billing database to represent monthly equipment rental or charges which you then apply against each customer using the website.

Technical

You need to give us details of your call details file format (and sample files) so we can implement the mediation layer necessary for successful importing of call data into the billing database.

We also need your logo and simple design information such as the font you would like to use so we can design the format of the PDF file to contain the billing summary to be emailed to the customer.

Suspense

The billing system is typically configured to process call details and re-rate suspense once per day. You upload call details files onto a server each day before your scheduled time and the system processes any new data and sends a number of spreadsheets you the Billing Manager by email containing details of any suspense calls. Often you may upload a file just once a month as you receive the monthly CDR from your telecoms provider.

The Billing Manager resolves any issues using the web interface and the re-rating process occurs again the next day resulting in a new set of suspense data being emailed to the Billing Manager. Our support staff also check the suspense data once a month to see if we need to take any action to resolve any suspense issues.

You may need to run the re-rating process more than once per day as you get close to your monthly billing date. The Billing manager must resolve or write off any suspense before monthly billing can take place.

Reconciliation

A number of reports are available that monitor the current state of monthly billing and produce a comparison against the previous months data. You must define your own reconciliation procedure often involving reports (spreadsheets) containing the following data:

- Summary per customer for this month and the previous month.
- Summary per destination for this month and the previous month.
- Summary per telecoms provider for this month and the previous month.
- Individual details of the monthly and call costs to be invoiced for each customer.

Summary data usually includes the number and total duration of all calls together with the retail price and cost price and also the CDR cost price from the telecoms provider if supplied in the call details file.

Billing

The billing process can take place once reconciliation is complete and results in an email being sent to the customer with a PDF containing the billing summary of call costs and monthly costs together with a spreadsheet format data file of all call details.

The invoices can be imported directly into Sage 50 as product invoices or transaction files integrated with your own systems and third party payment providers. The bills and spreadsheet files are available for download onto your internal systems allowing a customer portal to be created easily from billing data.

Search

The search page allows you to search the different areas of the billing database. Select the appropriate entity in the mode selection box:

- Customer.
- Originating Number.
- Number Translation.
- Products.
- Packages

A single search field is provided which searches several different fields in the target database and pressing the **search** button produces a table of the required data. Clicking on the leftmost column will take you to the required entity.

This example below shows you a query on number translation. Clicking on the customer link will take you to the web page for managing the service for that particular customer.

search
customer
services
discounts
switch
bills
sage

customer search

mode

Number Translation

▼

search

0845

Search

add customer

PETPART	PetPartners	NGN	08450831444	01296314994	20070926		<input checked="" type="checkbox"/>
PETPART	PetPartners	NGN	08450831446	01296611614	20070926		<input checked="" type="checkbox"/>
DTC2	Company Health Ltd	NGN	08453009101	01914976068	20070411		<input checked="" type="checkbox"/>
DTC2	Company Health Ltd	NGN	08453009102	01914976071	20070618		<input checked="" type="checkbox"/>
REDP	redware research ltd	NGN	08453010444	01273774537	20000101		<input checked="" type="checkbox"/>
NORMTAP	O S G UK Limited	NGN	08453051066	01268567660	20000101		<input checked="" type="checkbox"/>
NORMTAP	O S G UK Limited	NGN	08453051067	01268567661	20000101		<input checked="" type="checkbox"/>
STONEA	Stone Age Limited	NGN	08453081100	020738489090	20000101	20990101	<input checked="" type="checkbox"/>
PETPART	PetPartners	NGN	08453791500	01296319223	20080204		<input checked="" type="checkbox"/>
PETPART	PetPartners	NGN	08453791501	01296319224	20080204		<input checked="" type="checkbox"/>
PETPART	PetPartners	NGN	08453791502	01296422650	20080207		<input checked="" type="checkbox"/>
PETPART	PetPartners	NGN	08453791503	01296319227	20090709		<input checked="" type="checkbox"/>
PETPART	PetPartners	NGN	08458787077	02031790991	20070401		<input checked="" type="checkbox"/>

Customer

The Customer page gives you access to all the options for maintaining information and services for a customer. The menu along the top of the page gives access to the following options:

- Return to the search page.
- View the services for a customer. Services include Originating Numbers (CLI) for processing call details and monthly products and packages as well as non-geographic numbers provisioned against that account (see the services section).
- Discounts allow a range of special discounts to be applied when billing.
- Switch is for custom provisioning not normally provided with our service.
- Bills allow access to previous billing information for the customer.
- Sage gives access to your accounting database if you are running our SYNC Accounting website locally on your network and are using the Sage 50 accounting system.

An edit and save button allows you to change the details held against a customer. Note that the address information relates only to the billing contacts and you may need to update information in your accounting database separately.

search	customer	services	discounts	switch	bills	sage
account	REDP					Template Email
company	redware research ltd					
owner	Mike Duffy					
title	Mr					
first	Stamati					
last	Crook					
address	104 Tamworth Road					
	Hove					
	Esat Sussex					
postcode	BN3 5FH					
country	England					
telephone	01273774537					
fax						
email	stamati.crook@redware.com					
email format	HTML					
bill format	Excel 95					
pricelist	BRONZE Parasol					
bill group						
direct debit						
autobill flag	<input checked="" type="checkbox"/>					
start	01/01/2000					
finish						

The following fields are important from a billing point of view:

- The account number needs to match your accounting records.
- The address is the address to receive billing information.
- The email address is used to email bills and call details.
- The email format is HTML or TEXT.

- The bill format is for the call detail records and is only EXCEL 95 is currently specified.
- The bill group is specified if you need separate billing information but a single invoice for a particular group of customers. Just select a unique billing reference (usually the account number) for the group account.
- The direct debit flag is helpful if you integrate with direct debit or other automated payment systems.
- The autobill flag is set to false if you do not want to automatically send out emails and call details when the monthly billing is complete.
- Start and End date is used to control when an account is active.

Template Email

It is possible to set up a number of email templates within the website which can be used for emailing the customer.

Please email support for more information.

Portal User

You may have purchased a customer portal website from us in which case you can setup the user details using the portal users page available from the bottom of the Customer webpage.

autobill flag	<input checked="" type="checkbox"/>
start	01/01/2000
finish	
active	<input checked="" type="checkbox"/>
	<input type="button" value="Save"/> <input type="button" value="Cancel"/>

portal users

cuser	email	bill group	active	<input type="button" value="Add Portal User"/>
stamati	stamati.crook@redware.com		<input checked="" type="checkbox"/>	

Add a portal user against a customer account using the **Add Portal User** button or edit the details by pressing the link. Once on the portal user webpage you can email a forgotten password to the user by pressing the **Email User Details** button.

customer

customer REDP

company redware research ltd

[Email User Details](#)

portal user

user	<input type="text" value="stamati"/>
email	<input type="text" value="stamati.crook@redware.co"/>
password	<input type="password" value="*****"/>
bill group	<input type="text"/>
active	<input checked="" type="checkbox"/>
	<input type="button" value="Save"/> <input type="button" value="Cancel"/>

Services

The services webpage provides access to most of the provisioning functionality of the system. You can control the following services from this webpage:

- CLI/Originating numbers which allow a match against your call details records.
- Number Translation for 0845 and other non-geographic numbers assigned to the account.
- Products which may be billed once only or monthly or annually.
- Packages (predefined collections of products) which may be billed once, or monthly or annually.

[search](#)
[customer](#)
[services](#)
[discounts](#)
[switch](#)
[bills](#)
[sage](#)

customer

customer REDP

company redware research ltd

service report

[add cli](#)

[add translation](#)

[add package](#)

[add product](#)

lines

number	match	name	product	provider	start	finish	active	pricelist
01273774537	01273774537	Stamati Crook	IDA	Telecom IT	20040502		<input checked="" type="checkbox"/>	
01483410188	01483410188	Nick Philips	IDA		20051018		<input checked="" type="checkbox"/>	
02031799444	02031799444				20071101		<input checked="" type="checkbox"/>	BTTrade
02031799445	02031799445	Stamat Test			20071205		<input checked="" type="checkbox"/>	
02086070421	02086070421	Peter McKeever	IDA		20050901		<input checked="" type="checkbox"/>	
08453790300	08453790309	Services for Redware			20080111		<input checked="" type="checkbox"/>	

number translation

number	destination	name	product	start	finish	active
08453010444	01273774537	NGN - 08453010444	NGN	20000101		<input checked="" type="checkbox"/>

packages

There are no packages for this customer.

products

product	frequency	description	quantity	unit price	start	finish	active
ADSL	Month	Testing	1.0000	22.5000	20070129	20070330	<input type="checkbox"/> active
TELMMAINT	Once	12 months maintenance from today	1.0000	400.0000	20070201	20070201	<input type="checkbox"/> active

Service Report

The service report is a simple webpage that can be printed out or emailed to the customer as a summary of the active services provisioned against that account.

Services

redware research ltd
104 Tamworth Road
Hove
Esat Sussex
BN3 5FH

Calling Lines

01273774537
01483410188
02031799444
02031799445
02086070421
08453790300

Number Translation

08453010444

Products

1.0000 ADSL Testing

Packages

None

CLI/Originating Number

The Originating Number (CLI) can be a single number or a continuous range of numbers depending on the requirements of your system. Sometimes a different identifier that is not a valid phone number may need to be specified for VOIP and other telecoms providers.

customer

customer REDP
company redware research ltd

cli

number	<input type="text" value="02031799445"/>
range	<input type="text" value="02031799445"/>
name	<input type="text" value="Stamat Test"/>
postcode	<input type="text"/>
product	<input type="text"/>
connection	<input type="text"/>
provider	<input type="text"/>
pricelist	<input type="text" value="BRONZE Parasol"/>
start	<input type="text" value="05/12/2007"/>
finish	<input type="text"/>
active	<input checked="" type="checkbox"/>
	<input type="button" value="Save"/> <input type="button" value="Cancel"/>

The postcode, product, connection, and provider fields are not required for billing and are for information only. If you use BT Openreach services you will need your own interface to the WLR3 system as we do not support provisioning through BT (although we do support billing with the DEDS CDR received daily from BT).

Note that the pricelist is inherited from the customer record but you can specify a different pricelist for individual services. This is useful if you want to provide one pricelist for traditional telephony and a different pricelist for VOIP services.

The start and finish and active dates are important for controlling the processing of CDR. Any call details that fall outside of these dates will go into suspense so you can make sure that your telecoms provider has ceased providing a service on your customer equipment.

Number Translation

Number Translation can be set up easily in the billing system and will need also to be provisioned with your provider or on your equipment. We need technical information on how these calls are represented in your call details files when we set up your system so we can make the relevant adjustments in the mediation process that loads your call details files into the billing system.

search customer services **discounts** switch bills sage

customer

customer REDP

company redware research ltd

number translation

number	08453010444
destination	01273774537
access	
name	NGN - 08453010444
product	NGN
provider	
start	01/01/2000
finish	
active	<input checked="" type="checkbox"/>
	Save Cancel

The non-geographic number is specified in the **number** field and the number it maps on to is specified in the **destination** field. The destination field can be a mobile number or a national number and the system uses the default pricelist of the customer to calculate costs.

We can cope with the special case of international toll free numbers but need to set up special processing in the mediation layer. International toll free numbers are specified in the **access** field and also mapped onto a **number** that may be used in the call details file and a **destination** for calculating the price (in this case an international number).

The **product** is always NGN (for non-geographic number translation) and the **provider** is for information only. The **active**, **start**, and **end** dates should match your provisioning so you can check if your provider is still passing calls through when you have de-provisioned the number,

Product

The available products are predefined in your system often by uploading from the products defined in your accounting database.

[search](#) [customer](#) [services](#) [discounts](#) [switch](#) [bills](#) [sage](#)

customer

customer REDP
company redware research ltd

product

product	ADSL (Annual Broadband subscription and se
frequency	Month
quantity	1.0000
unit price	22.5000
description	Testing
billed	
start	29/01/2007
finish	30/03/2007
active	<input type="checkbox"/>
	<input type="button" value="Save"/> <input type="button" value="Cancel"/>

Note that you may leave the unit price set to zero or description blank in which case the appropriate VAT and nominal ledger details).

The **frequency**, **quantity** and **unit price** are used for billing together with the **active** flag, **start** and **end** dates. The **description** field is for information and is copied into the invoice and billing summary each month and the **billed** date shows you the date that the customer has been billed to. Occasionally you will need to use the billed date to calculate the amount required for a credit note if a customer cancels the product after they have already paid for the time.

The following values for frequency are permitted:

- Once only appears only once on the next bill.
- Monthly appear each month.
- Quarterly appear each quarter using the start date as the date reference.
- Annual appear once a year on the anniversary of the start date.

Packages

Packages are complex and are setup specifically for your business. Typically they allow a collection of products to be billed as a single item on the invoice. You may provide a range of internet hosting services for example but want a single item on the bill. You can add a package to the customer and then select or deselect from a range of products available for that package.

Packages are setup specifically for your business if required and not discussed here.

Discounts

A small number of pre-define discounts can be applied to a customer bill.

search	customer	services	discounts	switch	bills	sage
customer						a
customer	REDP					
company	redware research ltd					

discount type	type	percentage	start	finish	active
Discount Number Service	B	10	20010101		<input checked="" type="checkbox"/>
Intra-Company Discount	COMP	10	20010101		<input checked="" type="checkbox"/>
Global Discount	GLOB	10	20000101		<input checked="" type="checkbox"/>

You can add a discount of the following types:

- A global discount applies a percentage discount to any number that is provisioned on your system. That means that any customer calling a service to any other customer provisioned on your billing system can receive discounted calls.
- The intra-company discount applies a discount percentage but only to service provisioned on your systems for the single customer.

Friends and Family discounts to specific numbers are also possible.

Note that you can also specify prices to individual destinations using a custom pricelist.

Bills

Bills allows you access to information for the billing history for a customer. A PDF file for the billing summary (invoice) and a data file of all the call details is stored for each monthly bill for each customer. These files can be copied down to your local server or accessed from this webpage.

search customer services discounts **switch** bills sage

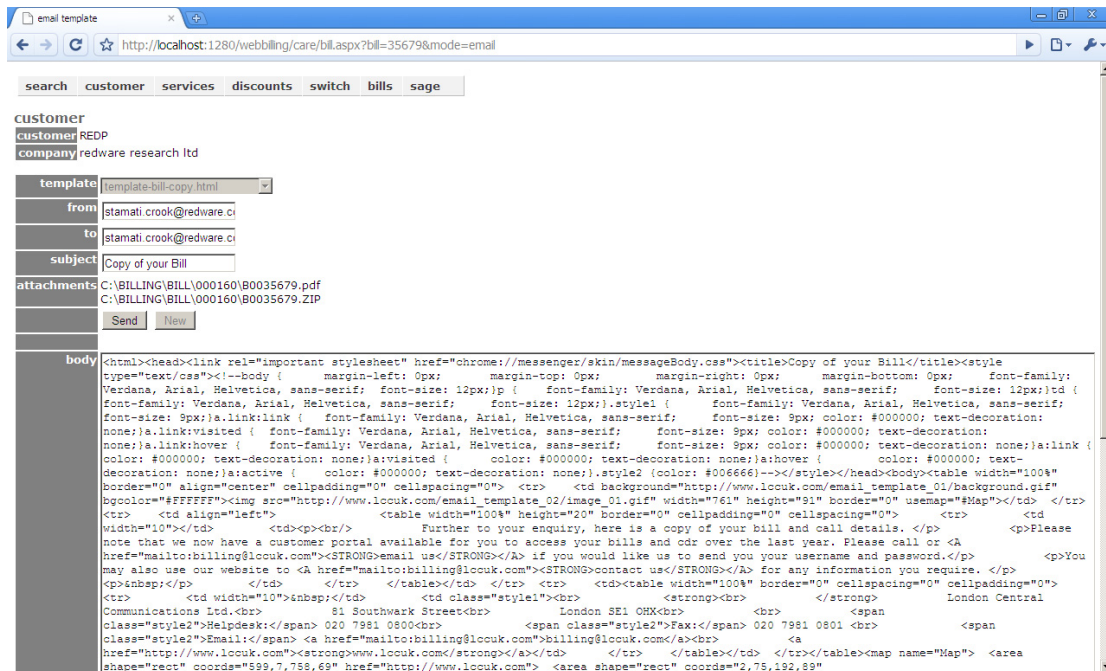
customer
customer REDP
company redware research ltd

Bill Items
Credits

bill	invoice date	amount	duration	email	sent	cdr	email	note
35679	51280	20100115	9.9600	13846	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
35516	50931	20091215	8.9500	13116	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
35293	50570	20091115	8.0900	8613	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
35108	50236	20091015	11.9100	13553	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
34900	49899	20090915	7.0370	7193	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
34729	49176	20090815	21.1750	21549	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
34499	48874	20090716	14.4350	17344	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
34301	48516	20090615	4.2650	4920	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
34093	48246	20090515	6.7760	10752	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
33893	47954	20090415	13.8730	16584	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
33686	47645	20090315	17.6620	21592	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
33499	47314	20090215	11.4960	14162	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
33312	46963	20090115	4.1260	4737	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
33093	46669	20081215	5.8030	6292	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
32900	46335	20081115	12.7030	17883	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email
32710	45985	20081015	11.0110	19155	stamati.crook@redware.com	<input checked="" type="checkbox"/>	cdr	email

Email

The email link on the bills page allows you to send out a template email to a customer with a copy of their billing information for the month specified.



Bill Items

The Bill Items webpage allows you to view (and drill down) on the individual bill items for a customer.

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customer

[customer](#) REDP

[company](#) redware research ltd

invoice bill	date	type	product details	units	quantity	amount billed	
40748	29805	20070615	CALLS LCR Call charges for May 2007	Month	1.0000	5.1000	20070531 ... 40748
41064	29988	20070715	CALLS LCR Call charges for June 2007	Month	1.0000	1.5200	20070630 ... 41064
41468	30181	20070815	CALLS LCR Call charges for July 2007	Month	1.0000	6.5100	20070731 ... 41468
41813	30358	20070915	CALLS LCR Call charges for August 2007	Month	1.0000	4.7700	20070831 ... 41813
42177	30513	20071015	CALLS LCR Call charges for September 2007	Month	1.0000	3.2300	20070930 ... 42177
42468	30704	20071115	CALLS LCR Call charges for October 2007	Month	1.0000	3.7700	20071031 ... 42468
42787	30832	20071215	CALLS LCR Call charges for November 2007	Month	1.0000	5.9100	20071130 ... 42787
43128	31016	20080115	CALLS LCR Call charges for December 2007	Month	1.0000	1.1000	20071231 ... 43128
43505	31200	20080215	CALLS LCR Call charges for January 2008	Month	1.0000	11.4900	20080131 ... 43505
43841	31387	20080315	CALLS LCR Call charges for February 2008	Month	1.0000	0.7200	20080229 ... 43841
44153	31571	20080415	CALLS LCR Call charges for March 2008	Month	1.0000	19.2000	20080331 ... 44153
44468	31765	20080515	CALLS LCR Call charges for April 2008	Month	1.0000	7.0400	20080430 ... 44468

Credits

The Credits button allows you to view any credits (applied only to packages) for a customer which are automatically incorporated into the next bill.

Sage

You can install our SYNC Accounting package on your local systems to gain access to all your Sage 50 accounting data from within the Billing website. The Sage webpage gives access to this information.

Glossary

Billing Manager	The person responsible for the billing process, particularly the elimination of suspense call detail records before the monthly billing run.
Billing Run	A monthly (usually) process to complete billing by eliminating suspense records and actually creating the bills for the customer.
CDR	Billing data for each call is received as part of a file containing CDR - Call Detail Records.
Mediation	The raw CDR file is often massaged to pre-process the data ready for matching and rating. This usually involves formatting the number dialled field and recording additional information such as whether the call was over an ISDN line and so on.
Match	Each call record is matched against a customer record usually with the CLI field.
Provisioning	The process of setting up a new line with the telecoms provider and entering the information into the billing database.
Rate	Each call record is rated against a pricelist to product a price for the call.
Reconciliation	The process undertaken by the billing manager where the monthly CDR is checked thoroughly before completing the billing run and sending out the bills to customers.
Suspense	There may be issues when processing a call record that prevent the matching and rating process from completing. These call details records are held in a suspense file and the Billing Manager needs to identify the issues and then re-rate these records prior to the monthly billing run.

Package Workflow

Packages invariably have some workflow issues and the **status** selection box is designed to help organise each package with a next action indicator. The current values include some cancellation codes and the following actions:

- To be ordered.
- Install Date Set.
- Live.

The '**to be ordered**' search term is entered into the **search page** for **packages** to view all the packages that still need to initial order fulfilment to be made:

search - Microsoft Internet Explorer

File Edit View Favorites Tools Help

search customer services discounts bills sage

customer search **add customer**

mode Package

search to be ordered

Search

LEVITT	Levitt Bernstein Associates Ltd	PSTN		To be Ordered
REDP	redware research ltd	ISDN30E Test		To be Ordered

Select the package that you wish to process and complete the provisioning before changing the status to **On Order** and filling in the **order date**. The package will be presented next when you enter **On Order** as the search term for packages.

package

package ISDN30E

description ISDN 30e

status On Order

reference Test

order 1/5/07

order date

install date

live date

Save Delete Cancel