CTI Billing Solutions Limited

Admin user guide

Analysis 7 1.10 – Core Front-office

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Preface

Document definition

Objectives

This document describes how to use the functionality available in *Analysis 7 (A7) Core Front-office* release *1.10* and comprises a:

- Product introduction – *Introducing A7 (on page 1)*;
- Quick guide – *Quick start (on page 13);*
- Detailed description of the features and their use –
  - *Using A7 features (on page 27)*
  - *Reporting features (on page 39)*
  - *Usage tagging features (on page 91)*
  - *Using Administration features(on page 107)*

Audience

This guide is for *users* assigned to a *Group* position on the *Default*, *Billing-defined*, *Historical* or *User Defined* structures; whether at the top (*Top-Level (Administrator* users) or at a point lower in the hierarchy (*Group users*).

For more on Structures …

See Ch. 2 Learning some key concepts 4

See also: ***Subscriber user Guide***

Related documents

Description	Reference
Analysis 7 v1.10 – Analysis OTS Deployment Process	MMOTSDEPP
Analysis 7 v1.10 – Admin user guide	MMOTSUGA
Analysis 7 v1.10 – Call, Charge & Currency Import Guide	MMOTSIMPG
Analysis 7 v1.10 – Data Interface Specification	MMOTSDIS
Analysis 7 v1.10 – Data Limits Document	MMOTSDL
Analysis 7 v1.10 – Data Description Document	MMOTSDD
Analysis 7 v1.10 – Deployment Process Document	MMOTSDEPG
Analysis 7 v1.10 – Help desk guide	MMOTSHDUG
Analysis 7 v1.10 – Product Specification – Core Back-office	MMOTSBPS
Analysis 7 v1.10 – Product Specification – Core Front-office	MMOTSFPS
Analysis 7 v1.10 – Sandbox user guide	MMOTSSBX
Analysis 7 v1.10 – Subscriber user guide	MMOTSUGS
Analysis 7 v1.10 – Translation Server Guide	MMOTSTSG

Documentation conventions and devices

General

This document refers to *CTI's A7* product as either *A7* or *A7*.

A7's functionality is often data-dependent, so some of the functionality described in this document may not be available in all deployments.

Terminology

Throughout this document the following terms refer to specific entities within *A7*.

Term	Explanation
Account	A management unit defined by the service-provider and used to collect *subscribers* into meaningful units.
Organisational	An organisational level within the billing structure. This is a service-provider defined management unit used to collect related *accounts* into a meaningful group. For example: In the case of a telecommunications solution, then all *Accounts* relating to a specific organisation may be grouped together as, say, the customer *Acme Corp*.
Service	The entity used by *subscribers* for which *usage charges* and other costs are incurred. In the case of a telecommunications solution, this may be a, for example, a Mobile Phone's Voice or Data service, a broadband link or a fixed line.
Service-provider	The organisation providing the *service* being consumed and billed. For example: In the case of a telecommunications solution the service provider would typically be a *Mobile Operator* (*MO*), or a *Mobile Virtual Network Operator* (*MVNO*).
Subscriber	A person, device or mechanism accessing and using the service and incurring *usage charges*. For example: In the case of a telecommunications solution, then a *Subscriber* may be a handset, tablet, laptop, TV or landline.
Subscriber-transaction	A single instance of *service* use by a *subscriber*. For example: In the case of a telecommunications solution, a *Subscriber-transaction* may be a call from a mobile-phone or landline.
Structure position	Used to refer to either a group or a subscriber node within an organisational structure.
User	A *subscriber, customer* or *service-provider representative* with assigned *A7 Sign-in credentials* and access to the *A7* application.

Images of screens and reports

Screen and report images are included for illustrative purposes only. They do not necessarily reflect the exact layout and functionality of the solution provided to a specific *service-provider*. All reasonable endeavours are made to ensure that data so displayed is either test data or anonymised data.

Typography

The following typographical conventions are used throughout this document.

Special notices

Hints and tips

Warning statements.

Supplementary information.

Text appearance	Meaning / usage
Text like this	A cross-reference to a position within the document. *Chapter 4 Accessing A7 (on page 2).*
Text like this	An object or feature name. The *Scheduled reports* tab, the *Main Menu.*
`Text list this`	A piece of text input via the keyboard. ▪ **Navigate** to /`directory/path` ▪ **Input** `This is a description` as ***Data description***
Text like this	An instruction or a numbered list of instructions. 1. Numbered lists are always instructions; 2. Don’t forget
Text like this	▪ An action to be taken **Input** `This is a description;` ▪ The name of the object of an action – a button or field Select **Data category** **Next** to continue.
[Text in square-brackets]	A key combination to be pressed: **[Enter]** or **[Tab]**

Contents

Table of contents

Part six:
Using Administration features

Appendices

Table of figures

Table of tables

Table of instructions

Part one:

Introducing A7

Chapters in Part one:

1. A7 Overview

CTI's *A7* solution provides users with the ability to view and analyse *Usage* and *Charge* information online. Users access the data through an easy to use drill-down interface, coupled with intuitive reporting wizards for the production of predefined or *custom reports*.

Using the solution, you can:

- View the billing information (billed and unbilled) for your *Organisational structure*;
- Create and update a subscriber hierarchy within your *Organisational structure*;
- Set up other users within your *Organisational structure* to use the service;
- Create reports based on the billing information;
- View both billed and unbilled data.

A note on browsers

Although CTI optimise A7 for use with all browsers, its advanced functionality relies on web standards that older browser versions may not fully support.

This version of A7 supports:

- IE 8, 9, 10 and 11;
- Firefox;
- Chrome

See *Appendix A (on page II)* for a full description of Browser compatibility.

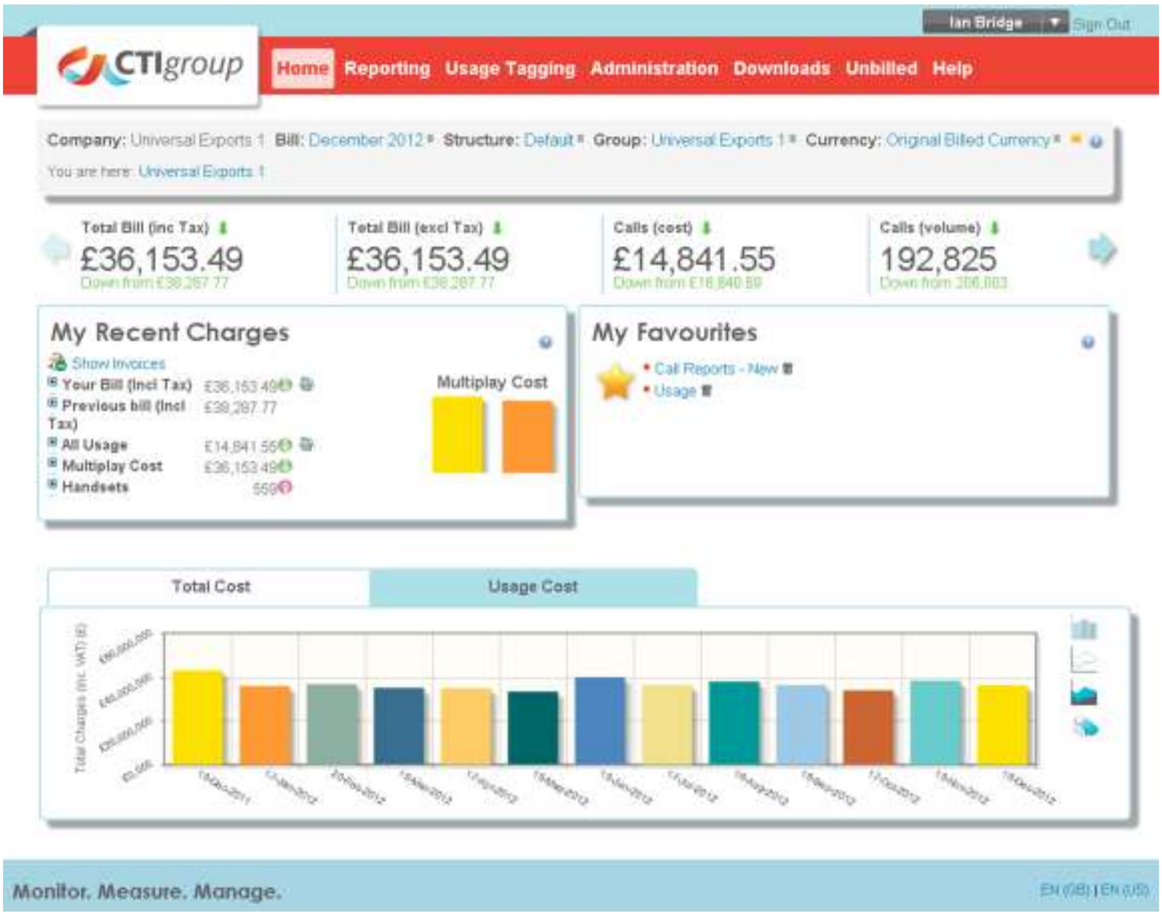


Figure 1: Analysis 7's Home page

Table 1: A7 feature sets

Feature sets	Functionality
Home	▪ My view; ▪ Headline summary; ▪ At-a-glance view of current and recent costs; ▪ Summary view of charges; ▪ Easy navigation links to favourite features.

Reporting	▪ **Main**
	  ▪ View a portfolio of *Predefined reports* analysing *Usage* and *Charge* data;
	  ▪ Create and maintain *custom reports* (*My reports*) with the report wizard.
	▪ **Trends**:
	View graphical representations of *Usage* trends for comparative analysis
	▪ **Audit:**
	  ▪ View a record of changes made to the *Organisational structure*
	  ▪ View the *Manage Charges audit log* (if that *Module* is implemented);.

Usage tagging	View and analyse tagged usage with: ▪ Standard reports; ▪ Custom reports via the reporting wizard.
Administration	▪ Maintain and manage the *A7* infrastructure including users and organisational structures. ▪ Create and maintain Currency conversion rates; ▪ Maintain personal and company phone books *[Optional module required]*
Download	*Download Usage* data (*Data export*), invoice data (*invoices*), raw *CDR* data (*Calls*) and *Unbilled Calls files.*
Support	Access standard and custom support options.

Table 2: A7 optional module feature sets

Feature sets	Functionality
Advanced usage tagging	Optional module The usage tagging management features enable admin users to : ▪ Configure system-wide usage tagging settings; ▪ Manage a global phone book; ▪ Create and manage tagging rules.
Unbilled	*Optional module* Optional module – *See: Analysis RT documentation set* ▪ *Unbilled dashboard* ▪ *Unbilled reports*

A7 supports a minimum screen resolution of 1024 x 768; however, CTI recommend using a screen resolution of 1280 x 1024.

2. Learning some key concepts

Before beginning to use *A7* you will need to know about some of its fundamental concepts, most important of these are:

- *Organisational structure*;
- *Current analysis context* – see *Ch. 2.3 (on page 7)*;
- Users, user types and user permissions – see *Ch. 2.4 (on page 8)*.

2.1. Organisational Structures

A7 uses an *Organisational structure* to present billing data.

Several different types of structure are available – see *Table 3* – each presenting a different organisational view of the data.

Related information

Table 3: Organisational structure types

Structure	Description
Billing-defined	This structure is as provided by the billing system. It is read-only and refreshed by each billing data load.
Default	The main structure and the one active when you first Sign-in to *A7*. Immediately after the first data load this structure is a copy of the *Billing-defined* structure; subsequent data loads and/or *user* edits update the structure.
Historical	This is a read-only snapshot of the *Default structure* immediately prior to each billing data load and retained online for (up to) 13 months.
Subscriber	A simple flat structure for *Subscriber-level users*, which contains only those *Subscribers* assigned to the *user*.
User defined	Available only if the *Advanced user-defined structure* module **is not** deployed [1] User defined structures are created by users to reflect an organisational need and other users may be given permission to see and/or edit them. Typically based on one of the existing structures (Billing or Default) and maintained using *Manage groups* and *Manage subscribers* to add *Groups* and *Subscribers* from the *Default* structure as required.
{Optional} Advanced user defined [1]	Available only if the *Advanced user-defined structure* module **is** deployed *Advanced user defined structures* comprise *Groups or Subscribers* from anywhere in the *Default* or *Billing-defined structure* irrespective of their parent *Group*, which makes them ideal for managing project-related resources.

Each *Organisational structure* is a hierarchy comprising one or more:

- *Groups*

  A *Group* is an organisational unit meaningful to the service-provider. It may represent for example, a division, department, location, cost-centre or team. It may contain other groups or subscribers.

[1] Either *User defined structures* or *Advanced user defined structures* may be used, but not both.

- *Subscribers*

  Subscribers represent the devices or mechanisms by which usage is consumed; for example, handsets, landlines, televisions or broadband data circuits.

- *Users*

  These are the people accessing A7 for information. Groups and *subscribers* may be assigned to users, conferring access rights to them.

An Example Organisational structure

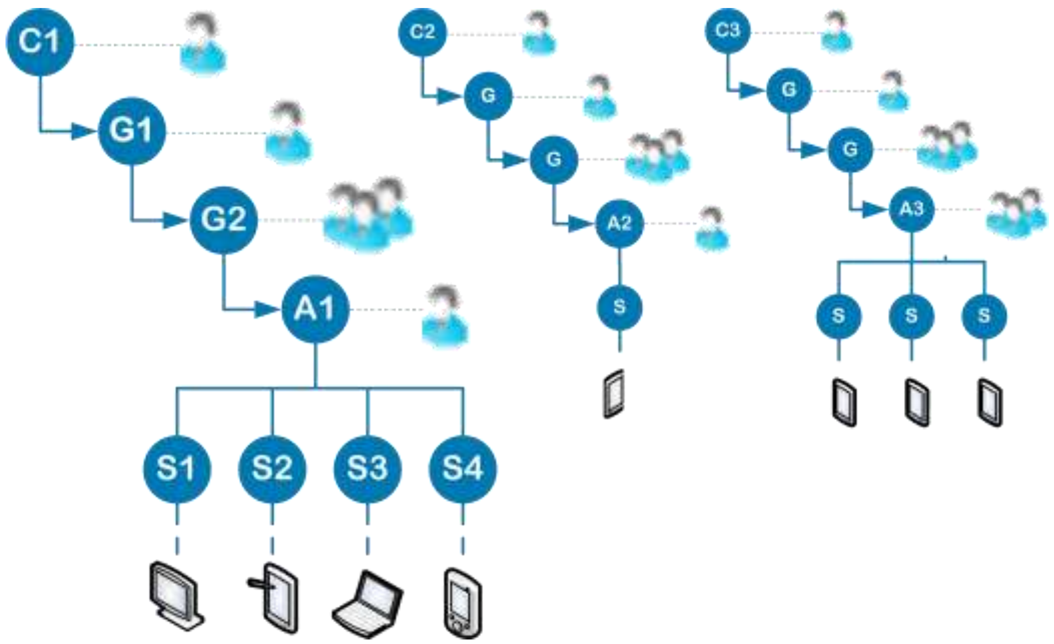


Figure 2: Example organisational structure

In the example given at *Figure 2 (above)* the icons represent nodes in the organisational structure's hierarchy, whilst the icons represent *A7* users.

Table 4: Example organisational structure.

Level	Node ID	Description
Top-level	C1	This represents the top-level of an organisation, the customer level. Users assigned to this level are able to see the whole structure below them. Two specific types of user are typically assigned at this level: ▪ *Administrators* are a significant sub-set of the Top-level users, with full access rights to users and structures. ▪ *Top-level users*, with restricted access (for example, read-only).
Group level	G1/G2	G1 and G2 represent lower level subdivisions – for example, G1 may be a Division whilst G2 may be a Department within that Division. Users assigned to these levels (that is, (*group-users)*) can see the structure below them but not that above them.
	A1	A1 is another group level, but it also represents the *Account* level, which is the billable level. Users assigned at this level can see all the Subscribers within their account, but not other accounts at their level. They may however have multiple accounts assigned to them.

Level	Node ID	Description
Subscriber-level	S1-S4	S1 is the subscriber level. Users assigned at this level can see only their own subscriber details; although they may be assigned to multiple *subscribers*. Subscriber-level users see a very different view of *A7* than say, the Administrator, see the ***Analysis 7 Subscriber user guide.***

2.2. Custom organisational structures

Service-providers may implement **either** *User-defined* **or** *Advanced User-defined structures*, but not both.

A7 supports the creation of structures that reflect a users' organisational needs through two mutually exclusive feature-sets:

- User-*defined structures* (*UDS*);
- *Advanced* user-*defined structures* (*AUDS*).

Related information:

2.2.1. About User-defined structures

Core feature
Available to all users
Not available if the optional Advanced User-defined Structures feature is deployed

Users may define structures that reflect their own analytical needs, for example, to analyse costs for a particular collection of subscribers independent of the other structures.

For information on creating UDS ...

... see topic 18.1 Managing groups 108

These *User-defined structures (UDS)* may be based-on an existing structure, or blank (to be populated manually by the user).

UDS do not need to contain all the phones within a bill they can just contain a sub set of these phones.

UDS are available to everyone irrespective of their structure/user rights, and only the user who created the structure can delete it.

UDS comprises groups and subscribers from the *Default structure*; which may be arranged and renamed as required.

It enables the creation and management of hierarchies up to ten levels deep, which can be cloned from an existing structure – for example a group or department – or manually compiled by the user.

The skeleton *UDS* is created, and its groups defined, using *Manage groups* functionality, as shown in *Topic 18.1(on page 108)*. The structure may then be populated with subscribers using the *Manage subscribers* tab.

2.2.2. About Advanced User-defined structures

Optional feature
Available to *Top-level users* only.

To create AUDS ...

Sec 18.5 Managing advanced user defined structures ... 5

Advanced User-defined structures comprise subscribers or groups from anywhere in the *Default* or *Billing-defined structures* irrespective of the parent group.

This feature provides the ability to create groups without the group's users having access to the parent group

This is ideal for project related resource management analysis, since it allows subscribers from multiple departmental groups to be added to a project group without that project having access to departmental level data.

2.3. Current analysis context

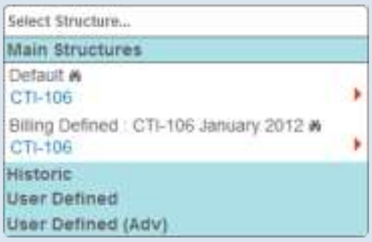
To choose the analysis context ...

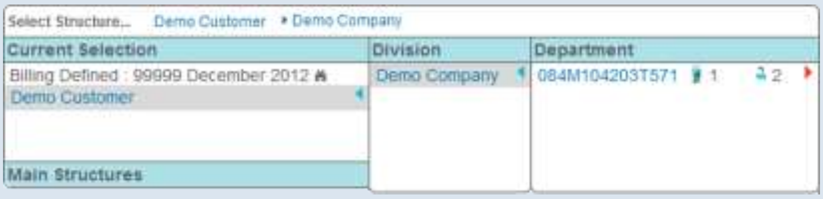
Sec 8.1 My View 28

Think of the *Current analysis context* as a pointer to the data being analysed. It comprises a number of elements, which together point the system at a specific node within an organisational structure. Elements such as the *Billing-period* you are interested in, the *Structure* you want to use, your level on that structure and the currency type – see *Table 3 (page 4)*.

All of those elements are easily accessible from *My view* – *Ch.8.1 (page 28)* – which appears on most pages.

Table 5: Elements that determine the Current analysis context

Context control	Description
Billing-period	Select from any of the billing-periods for which data has been loaded. Use the *Billing-period context controls* to select a specific period, for example to view a previous month's data;
Organisational structure	You can select from any of the available structures. Use the Structure browser control to select a specific Organisational structure and navigate to (or search for) a specific Group or Subscriber within that structure  Figure 3: Structure browser control

Context control	Description
Structure position – that is, a Group or Subscriber	Use the *Group (or Subscriber) context controls* to open the *Structure browser control*, then select (or search for) the required *Group* or *Subscriber*.  Figure 4: Structure browser control –navigating to a Group When referred to as a structure-position; the term represent either a group or a subscriber.
Currency list	*A7* uses *Currency conversion lists* to define conversion rates. The *Currency context control* [2] presents all available *Currency conversion lists* for selection. If the selected *Group,* or *Subscriber,* contains only one currency, you can choose to view the data in its original currency.

2.4. Users

A7 must register all users [3] before they can access the billing-data. Users will have permission to view and/or edit none, one, or more structures (*Table 3, on page 4*).

For more on managing users, see:

2.4.1. User types

A7 caters for a number of different types of user – see *Table 3 (page 4)*. The combination of *user type* and *user permissions* assigned to a user determines their level of access to the data and structures within *A7*.

Table 6: User types

User type	User type description
Administrator user	Assigned to the Top-level (that is, customer level) of one or more structures and with full administrator rights; this is typically the user that manages the structure(s). It is the first user created and is capable of creating other *top-level users*, with or without full administrator rights.
Top-level user	Assigned to the top of one or more structures, but with restricted access that curtails their ability to administrate (for example, they may have read-only access, or be unable to manage structures) – see *Table 3 (page 4)*.
Group-user	Assigned to a Group below the top-level (for example, to an individual account).
Subscriber-user	Assigned directly to one or more *Subscriber*, with no access to the organisational structure's wider hierarchy.
Multi-group user	Assigned to more than one *Group* position in a single structure (for example to multiple accounts). The assigned positions cannot conflict; so, for example a user can be assigned to *Group A* and *B*, but not to *Group A* and then to a lower-level within *Group A*.

[2] Users with subscribers billed in a single currency do not see this control.
[3] Except for single-sign-on solutions, where the host service-provider system is responsible for registration.

2.4.2. User permissions

Users have an associated set of permissions, which confer certain rights to them (see: *Table 7 (below)*.

User permissions apply at the user's *organisational level* and below.

Users on multiple structures

Users assigned multiple positions may be, for example:

- An Administrator user on the Default structure;
- A Group user on the Billing-defined structure;
- A Subscriber user with access only to their subscribers.

Users can have access to multiple structures and have different permissions to each.

Table 7: User permissions

User permission	Rights conferred
Full administrator rights	Users with Full administrator rights have both *Structure* and *User* rights. Users can create and maintain the *Organisational structure* and *Users*.
Structure rights	Users can create and maintain the *Organisational structure*; including the *Default structure*, but not the read-only *Billing-defined* or *Historical structures*..
User rights	Users can create and maintain Users. They can assign Users to any *Organisational structure* or Group that they themselves can access.
Read only rights	The *User* can create or maintain neither structures nor *Users*.

2.5. Charge-categorisation

By default *A7* provides for Charge-categorisation based on a maximum of twelve categories, the naming of which is defined within the scope of the deployment project – *Charge 1 – Charge 12* **{Default}.** An unlimited number of sub-categories may also be defined.

2.6. Tax and Tax Lines

Service-providers may supply Tax amounts in any of the following ways:

- in the invoice record as a total amount;
- in the invoice record broken down into tax lines;
- in the Subscriber record.

The Tax total is included in both the *Usage records* (CDR) and *Charge records*. Any summaries containing both records will store only the Usage record tax value.

If *Tax lines* exist at both *Invoice* and *Subscriber level*, A7 assumes that the *Invoice level* includes the values of the *Subscriber level*.

So, for example, with an Invoice level Tax line of £100 and a Subscriber Tax line of £50, the Total tax is assumed to be £100 and not £150.

3. What A7 looks like

3.1. General layout and navigation

The user interface map – *Figure 5 (below)* – introduces some of the basic user interface elements; naming them and identifying their purpose in *Table 3 (on page 4)*.

Figure 5: User interface element map

A7 comprises a number of pages offering one or more *features* 01 and accessed via the navigation tabs in the *Main menu*. 03

You will quickly learn how to navigate *A7*'s features using:

- One or more of the available menus, for example; 03 13
- Buttons or icons; 11 16 17
- My favourite links; 19
- Hyperlinks embedded within reports or displays. 19

Table 8: User interface element descriptions

UI Element name		UI element description
01	User menu [4]	The *User menu* allows users to manage their *A7* account.
02	User Sign-out hyperlink	The *User Sign-out* hyperlink allows users to exit *A7*.
03	Main menu bar	The *Main menu bar* enables the *User* to quickly access *A7* features.

[4] Also known as the *Welcome* menu.

	UI Element name	UI element description
04	My view	This is an example of an *A7* feature; *My view* in this instance. My view contains the *Current analysis context controls*, which select *Billing period*, *Organisational structure*, *Group* or *Subscriber*, and *Currency conversion list*.
05	User identifier	The *User identifier* is shown only when *A7* is used in *Impersonation mode*. It displays the *User* being impersonated and a hyperlink, which returns to the originating *User* and normal operating mode.
06	My favourites	Shortcuts to favourite reports.
07	Help Icon	The *Help Icon* provides easy access to further information; it opens a *Help* panel, which describes the features available on the page and may also contain links to further resources.
08	Breadcrumb trail	The *Breadcrumb trail* displays the currently selected position (*Group* or *Subscriber*) within the selected *Organisational structure*.
09	Horizontal scroll arrows	Some features such as this *Headline summary* expand beyond the page boundaries; use the pair of scroll arrows to see the previous/next item in the display.
10	Active tab	Active tabs move to the foreground of the page to display their content.
11	Inactive tab	Click to activate Inactive tabs.
12	Hover-over action:	Holding the cursor over components, such as chart bars, will reveal additional information (in this case the value represented by the bar).
13	Chart type menu	Charts and reports normally display a function menu, providing access to additional functionality (for example, Print or email).
14	Report icon	These icons are short cuts to reports; Click to open the report.
15	Download Icon	These icons are short cuts to dialog panels providing additional information and Download functionality; Click to open.
16	Delete Icon	Icons such as this provide basic housekeeping functions.
17	Expandable list	The *Expandable list* icon appears whenever a list item contains hidden detail. Use it – and the corresponding contract list icon – to view or hide the additional detail.
18	*Cost adjustment arrows*	*Cost adjustment arrows Icons* highlight variances between current and previous *Billing period* values. They display next t *Cost* and *Original Cost* figures on reports..
19	Embedded hyperlinks	Hyperlinks are used within the page to provide shortcuts to other application pages (for example, a relevant report).
20	Language selection menu	The *Language selection* menu provides an easy means of changing the UI language.
Others - not shown on the UI Map.		
Drop-down list		A *drop-down list* enables quick and accurate selection from a predefined list of options.
Action button Submit Usage		The UI contains *Action button* to enable the *User* to access additional functionality within a feature; for example, to **Edit** or **Delete** an object.

3.2. The user menu

Use the *User menu* – also known as the *Welcome* menu – to access the *User account* to:

- Return to the *Home* page;
- Display the *Control panel*;
- View *My account* details;

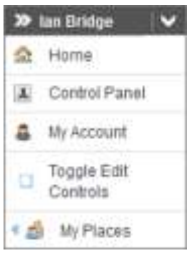


Figure 6: User menu

  - Change password details;
  - Change preferences (for example, stop notification emails) via the ‘My Account ‘feature;
- Display *My Places* (when available).

3.3. My account

Once signed in, the *User menu* is populated with your name (as entered when your user account was registered) and a *My Account* link.

From the *User menu,* select *My account* to display the *My account* panel.

Use *My account* to change your details (for example, your *email address*, *first name* or *last name*) and to reset your *password*.

The user name (*Screen name*) is not changeable.

Part two:

Quick start

This section provides a quick overview to get you up and running with A7 quickly.

Chapters in Part two:

The chapters in this part will help you answer questions such as:

- How do I access *A7*? *{Section 4.1 on page 14}*
- How do I sign-in to A7? *{Section 4.2 on page 15}*
- What if I forget the password? *{Section 4.3 on page 15}*
- How do I choose what to view? *{Section 5.1 on page 18}*
- How do I get a quick summary? *{Section 5.2 on page 18}*
- How do I check charges? *{Section 5.4 on page 19}*
- How do I view Predefined reports? *{Section 7.2on page 23}*
- How do I create a custom report? *{Section 7.3 on page 25}*

4. Accessing A7

4.1. How do I access A7?

You need *Sign-in credentials*, which typically comprise:

- A user name and (temporary) password pair;
- A pointer to the service, which can be, for example:
  - A web address (for example, `http://mya7.serviceprovider.co.uk`)
  - A hyperlink from a service-provider's page or menu.

Administrator users only …

Before you can start to use the A7 service you need to register for a user login using the Keyword and Authenticode sent to you via email.

▶ Select the **Register** tab from the login page to access the registration form.

The A7 administrator is responsible for creating new users, at which time the *Sign-in credentials* are sent to the registered email address of the created user.

A7 uses the registered email address (viewable under *Details* panel) to notify when a new bill is available for viewing and to respond to *Password reset/recovery* requests.

Change your password

On first use of any the new sign-in credentials it is good practice to **Change your password.** Do this using the *User menu* (the drop-down menu located at the top right hand of your screen).

1. From the *User menu*, **My Account**
2. From the *User Information* panel, select the **Password** link

   A7 displays the *My account – password* panel.

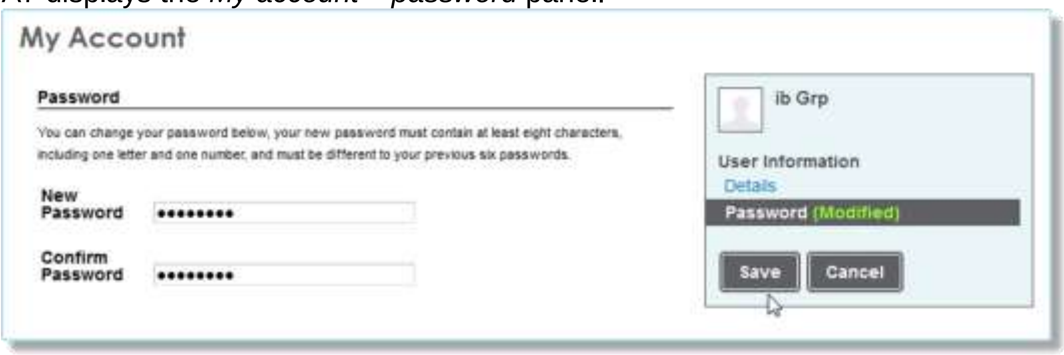


Figure 7: My account – changing your password

3. **Input** your new password as **New Password**

   Passwords must be a minimum of 8 characters, a maximum of 32 characters, contain at least one numeric character (please note symbols are not allowed).

4. **Input** your new password again as **Confirm Password**
5. **Save** to submit the data and save changes.

   A7 saves and activates your new password.

4.2. How do I sign-in to A7?

Each time you visit you will need to sign in using your *username* and *password*.

Figure 8: Sign-in panel sample

Exceeding the maximum number of sign-in attempts (five) locks the user account.

4.3. What if I forget the password?

Figure 9: Password reset request form

Forgotten passwords can be reset using the *Forgotten password* link on the *Sign-in* page.

Request a password reset

6. From the *Sign-in* page, select **Forgotten password.**

   The Forgot Password panel is displayed.
7. Input your *user name* as **Screen name**.
8. Input the displayed *text verification* code as **Text verification**.
9. **Send new password**.

   A7 emails a temporary password to the address registered to the username entered.

4.4. What if I need help?

- Select the *Help* icon, which is displayed on most pages and many pop-up panels.
  A7 displays a pop-up panel containing help text relevant to the page or panel being viewed.

- From within the *Main menu*, select **Help –** see *Chapter 10 (on page 38).*
  A7 displays the Help/Support page.

Figure 10: Help page example

The tabs on the help page include:

- *Frequently Asked Questions*;
- *Downloads;*
- *Feedback;*
- *Contact Us*

5. Analysing at a glance

The *A7 Home page* provides a useful hub from which to quickly assess the status of a *Group* or *Subscriber*.

Figure 11: The Home page – UI map

Home is a valuable starting point for analysis, which gives a compact overview at a glance. It comprises five essential features:

- *My view* 01

  See: *Section 8.1 on page 28*

  Use *My view* to select the data to be analysed (the *Current analysis context*). The expander icons reveal selectable options for *Billing-period* and *Currency* or the *Structure browser control* for selection of a *Structure*, *Group* or *Subscriber*;
- *Headline summary* 02 – a scrollable quick view of key indicators;
- *My recent charges* 03
  - To view charges and how they differ from the previous billing-period;
  - To see any associated invoices 05
- *My favourites* 08 – to quickly navigate to a favourite report;
- *Total cost* and *Usage cost* charts 04

  To get a quick summary of costs over previous billing-periods.

How to get here:

From A7's Main menu, Home

Related information:

What you can do here …

- From My view, select a Structure, Group, Subscriber to view (see: Ch. 8.1 on page 28) 01
- View usage costs and drill-down to the data behind the summary figures; 04
- View charges and drill-down to the data behind the summary figures 02 03 06
- Access any associated invoice(s) 05
- Quickly access favourite reports 06 08
- Access help 07

5.1. How do I choose what to view?

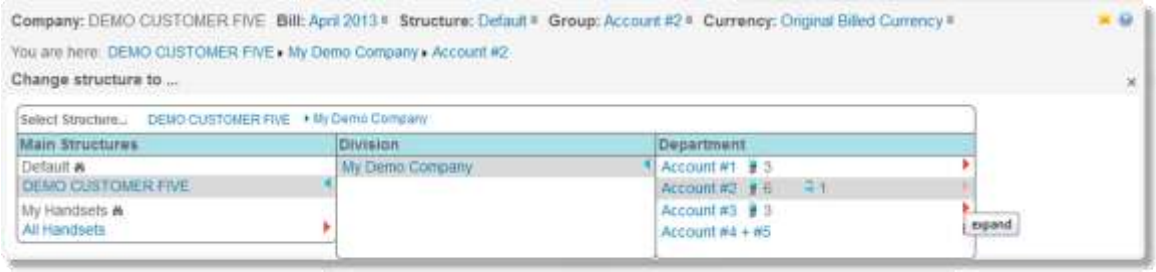


Figure 12: My view showing expanded structure browser control

From within *My view*, select the *expander* icon beside *Structure* or *Group*/*Subscriber*
A7 displays the *Structure browser control*, which you can use to navigate to and select the required *structure*, *group* or *subscriber*.

5.2. How do I get a quick summary?

The *Headline summary* displays key indicator totals for the *Current analysis context*.

Figure 13: Headline summary showing scroll arrows

Within the *Headline summary* you can :

- Scroll left or right using the scroll arrow icons ;
- Hover over a value and select an embedded hyperlink
  A7 launches the *Usage* or *Charge-categorisation* report depending upon the item selected.

5.3. How do I see usage costs?

Home page's *Total Cost* and *Usage Cost* feature – *Figure 14 (below)* – is a great place to see how costs have varied over time.

Figure 14: Total cost and Total usage UI map

The active tab in *Figure 14 (above)* is *Total cost* 01, which charts total usage and charges.

- Click to select the (currently inactive) *Usage cost* tab 02
  The displayed *Usage cost chart* shows the total usage costs per loaded billing month.
- Hover over a bar 05 to see the total it represents. 03
- Use the *Chart menu*. 04 to change the chart format, or to print the chart.

5.4. How do I check charges?

Figure 15: My recent charges UI map

The *My Recent Charges* feature on the *Home* page displays a summary of the recent charges 01 for the *current analysis context*.

The *Cost Adjustment Icons* 05 indicate how the figures have varied for the context since the previous bill.

The feature also includes

- A mini chart 07 with hover-over action to display the amount. 04

> The chart 07 changes to reflect the values of the selected charge 01

- Embedded links to:
  - The *Charge-categorisation report*, 02
  - *Invoice summary*, 03

    > *Administrator and Top-level users only*

    The *Invoice Summary* shows total charges for the months loaded (including cost adjustment arrows) and a comparison between each month and the previous month, no drill down is available here. The graph changes dynamically as the view by drop down is selected.
  - Usage report; 06
- Expandable categories 08 help you focus on the information relevant to you.

6. Comparing trends

Trends are pointers from the past – use them to shape the future

The *Trends* feature displays side-by-side *Trend charts*, which are ideal for quick comparisons of usage over multiple billing-periods.

For more on comparing trends …

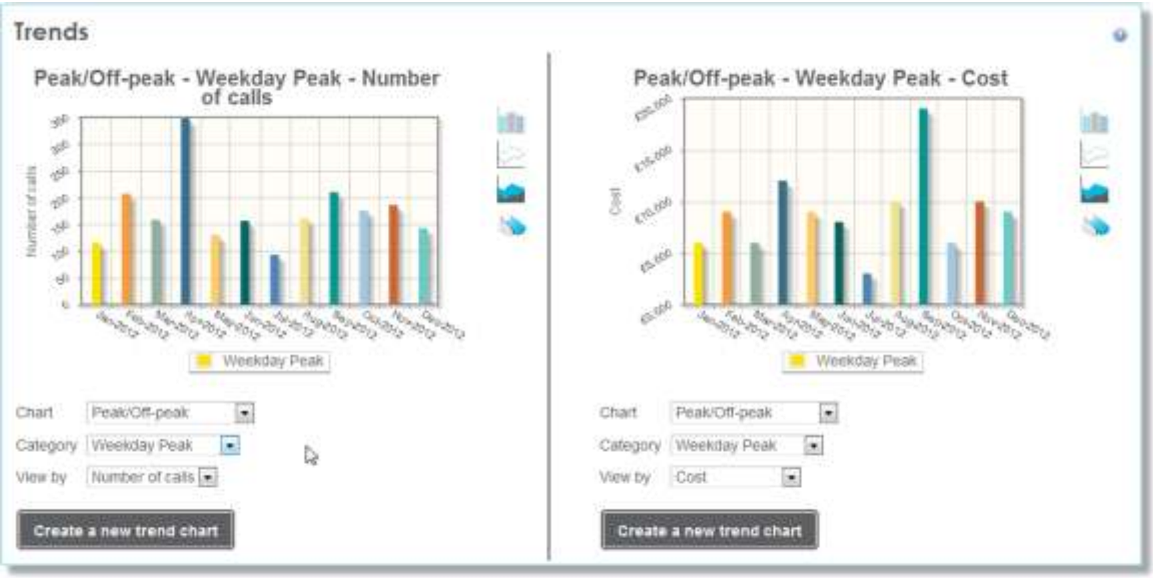


Figure 16: Trend charts sample

How to get here:

From *A7's Main menu*, **Trends**

Related information:

What you can do here …

- Select a Current analysis context within My view
- View a predefined Trend chart
- Create, view and/or edit a custom Trend chart;
- Favourite a custom Trend chart;
- Access help

The *Trend charts* view *Figure 16 (above)* shows *Weekday peak usage* by *Cost* and by *Number of Calls*.

It is easy to see where the two charts are in sync and where there is – for example – an apparent high cost per call (say, September) which may be worth investigating further.

Control the charts using the drop-down lists *Chart*, *Category* and *View by*.

You can view trends by:

- Call volume,
- Duration,
- Events,
- Data volume,
- Cost.

7. Finding your way with reports

A quick look at the A7's reports.

A7 offers both predefined and *custom reports*, which allows you to easily turn data into information.

From the *Main menu bar*, select **Reporting»Main**

Displays the *Report overview*, which organises the reports in five categories:

Costs reports

When reports

Where reports

How reports

My reports

This provides a convenient way to access reports quickly.

Figure 17: Report overview sample

How to get here:

From A7's Main menu, Reports
[Alternatively] From the report menu, Overview

Related information:

What you can do here …

- Select a Group or Subscriber to analyse (the Current analysis context);
- Select a report to view;
- Drill-down from summary to detail levels
- Print, Save or Email reports.

7.1. What does a report look like?

The Report interface comprises four areas – summarised in *Table 9 (below)* – with each comprising a number of components, see *Ch. 11 Understanding report components (on page 40).*

Figure 18: Sample report showing the user interface

Reports typically comprise four major elements, each with a number of components:

Table 9: Report components summary

Report element	Report components with this element
Selection	▪ My view 01 ▪ Report category menu 02 ▪ *Report filters*; 04 🛈 For more on filters, see: *Ch. 11.1.3Report filters(on page 41).*
Presentation	▪ Column set; 05 The columns displayed are determined by the selected *Report view* filter 12 The *Report view* filter is displayed only when a custom *Report view* exists for the selected report level, otherwise *Default* columns are displayed ▪ *Report options* drop-down menu; 03 ▪ Data sorting icons; 09 ▪ A summary line showing the total for numeric columns;; 10 ▪ *Cost adjustment arrows* in some instances, showing the upward or downward trend since the previous billing period; 11 ▪ Column scroll bars. {Not shown, these scroll bars are used if the selected columns for the report do not all fit in a single screen width).
Navigation	▪ Page browse controls 08 ▪ Drill-down icons. 06 07 🛈 See also: *Ch. 11 Understanding report components (on page 40).*

Report element	Report components with this element
Functionality	▪ Edit dialled number description; ▪ Report actions menu (not shown, the Actions button reveals a drop down menu of options) ▪ My favourites icon

7.2. How do I view Predefined reports?

7.2.1. Viewing a predefined report

View a report

1. Use *My view* (*Figure 18 above*) to choose the report context.
2. From the *Report overview's Costs, When, Where* or *How* pane, select a <report name>.

   [Alternatively]From the *Report category menu*, select <report type>»<report name>.

   A7 displays <report name> at the Report summary level showing data based on the *Current analysis context* – see *Ch.2.3 (on page 7)*.

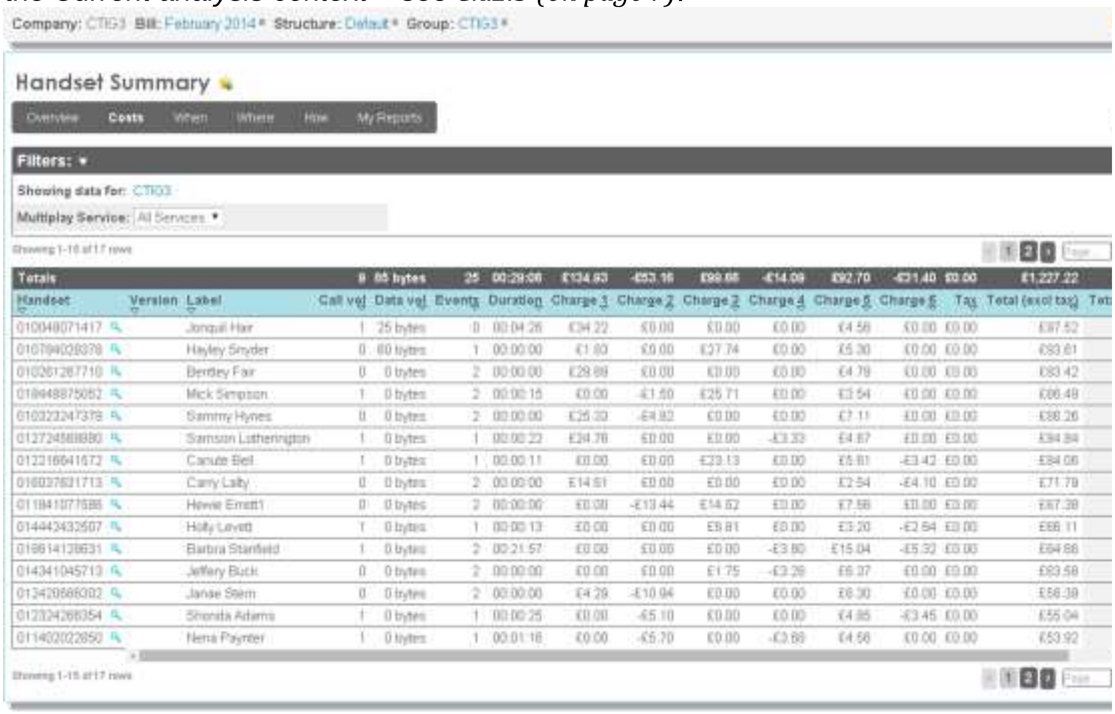


Figure 19: An example of a predefined report .

3. [Optionally] Refine the report:
   a. Use *Report filters* to refine the data displayed;
   b. Select a custom Report view (if one has been defined);
   c. Use *Page browse controls*

d. Use drill-down options to explore the report detail – see *Topic 7.2.2 Using drill-down controls (below)*. [5]

4. [Optionally] Use the *Report options menu* to set the output media type (chart, print, save or email) and/or to configure the columns to be displayed.

7.2.2. Using drill-down controls

This example uses the *Charge-categorisation Report* at its top level to illustrate:

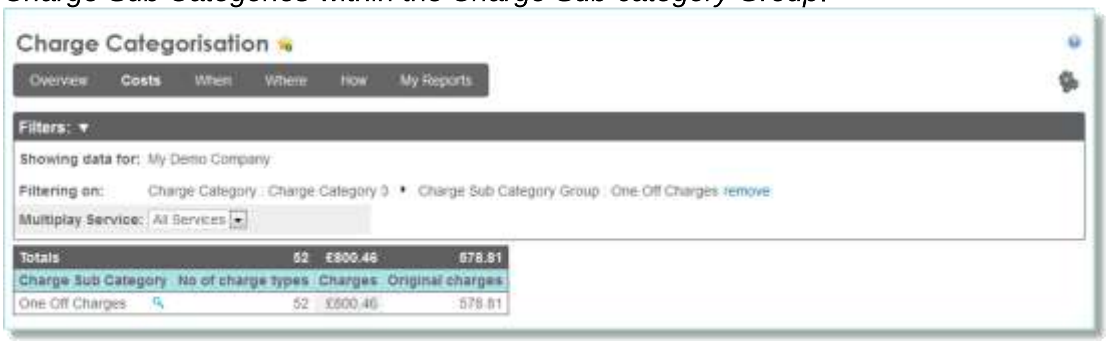
- Drilling-down through the data structure using **Select detail**;
- Drilling-down through the organisational structure using **Select group**.

Drill-down the report's data structure

1. A7 displays the Report summary level for the *Charge Sub CategoryGroup*, showing the sub categories within the top level category.

2. From the required row, **Select detail**

   A7 displays the Report summary level for the *Charge Sub Category*, showing all *Charge Sub Categories* within the *Charge Sub-category Group*.



[5] Drill-down options are not available on all reports.

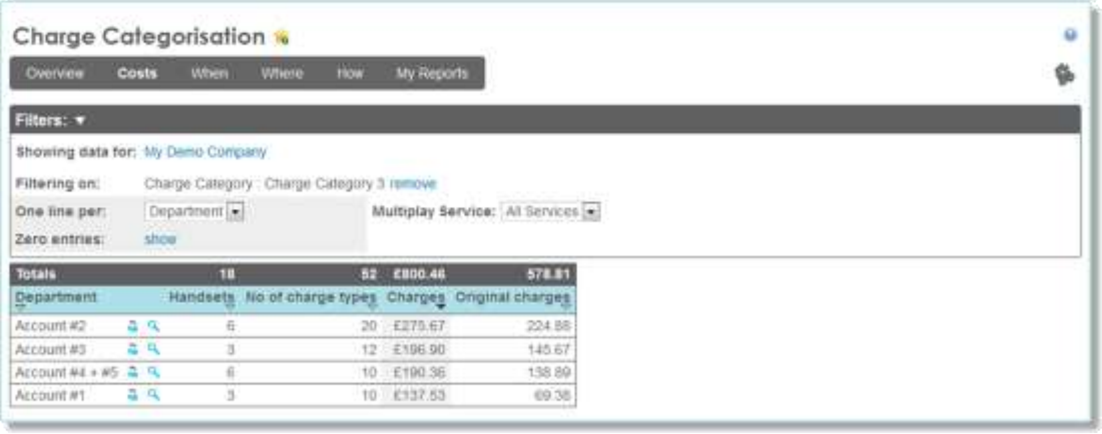
3. From the required row, **Select detail**

   A7 displays the Report results summary, which will display transaction details for the selected *Charge Sub Category* – see *Ch. 11.5.1 Report summary level (on page 47)*.

Drill-down the report's organisational structure

1. From the reports top-level and in the required row, **Select group**

   A7 displays the Report summary level for the next tier down in the *Organisational structure* showing data for the groups within that tier.



2. Repeating **Select group** at subsquent levels will display the Report summary level for successively lower tiers in the *Organisational structure*.

   At the lowest tier the *Report summary level* shows *Subscriber-level* totals.

   At this level the Select group icon is no longer available.

3. From the required row, **Select detail**
4. A7 displays the Report results summary, which will display transaction details for the selected *Charge Sub Category* – see *Ch. 11.5.1 Report summary level (on page 47)*.

7.3. How do I create a custom report?

Create a Custom report

1. From the *My reports* pane on *Report overview*, select either of the report types: **Call reports – New** or **Charge reports – New**

A7 launches the appropriate *Report wizard*.

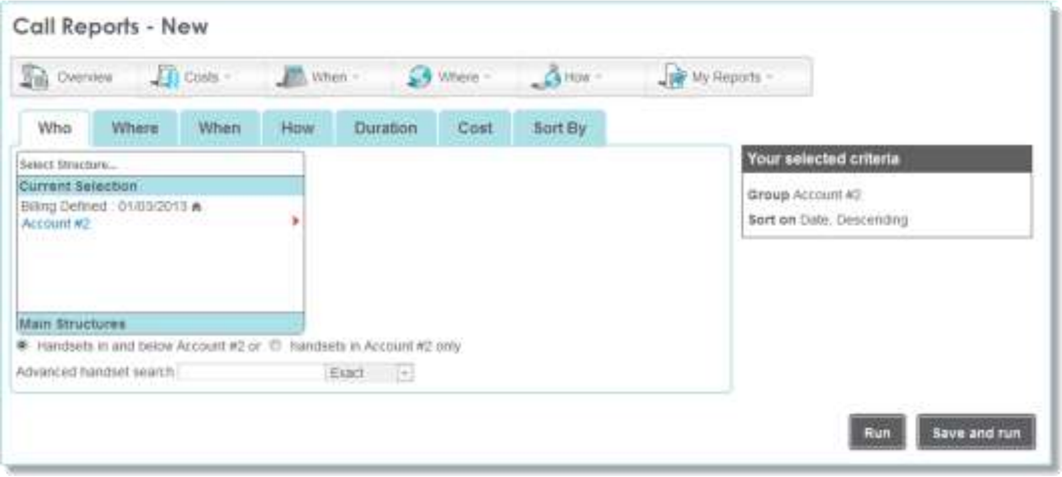


Figure 20: My Report wizard sample.

2. Follow the report wizard's prompts to build a *Custom report* – see *Ch.12.3 Using custom reports (on page 53).*

Run a custom report

1. A7 displays the settings for the selected report for viewing or changing.

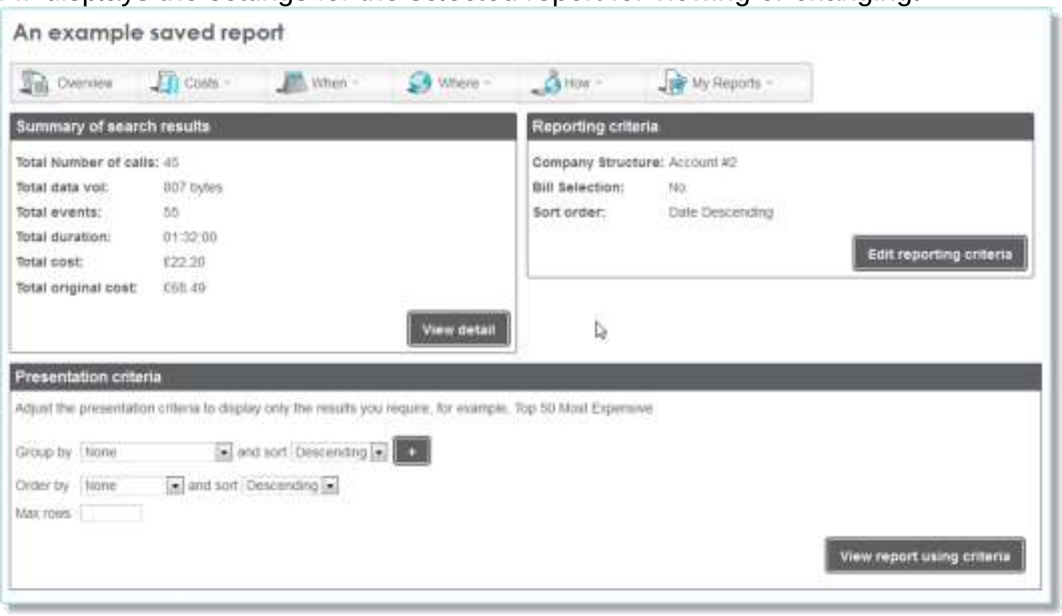


Figure 21: My saved report sample

2. **View detail** to see the report content.

   [Alternative 1] **Edit reporting criteria** to change the report.

   [Alternative 2] **View report using criteria** to apply the selected *Presentation criteria* to the report.

Part three:

Using A7 features

This section introduces you to additional detail on using three of A7's basic but fundamental feature sets.

Chapters in Part three:

More advanced features …

- Section IV Reporting features on page 39
- Section V Usage tagging features on page 91
- Section VI Using Administration features on page 107

8. Home

The *Home* page is the first port of call for many *A7* users. It comprises: *My view, Headline summary, Total usage and Usage Cost, My recent charges* and *My Favourites* features.

Figure 22: Home page example

8.1. My View

At the top of each page [6] is the *My View* feature, which both displays and controls the *Current analysis context*.

Figure 23: My view feature

Use the My view panel for selecting the:

- Billing-period;
- Structure to view;
- Group or subscriber;
- Currency.

[6] Except the Support page.

Table 10: My view components

Components [7]	Description
Current analysis context	My view display the current values of the component elements of the Current analysis context, that is: ▪ Selected organisation, ▪ *Organisational structure*; Currency. ▪ Billing-period; ▪ Group/subscriber;
Context controls	Each element of the *Current analysis context* (except *Company*) has a *control* expander icon (for *bill*, *structure*, *group/subscriber* and currency), which expands the *My View* feature to show the appropriate *Context control panel*, allowing selection of new values.
My favourites link	This icon expands the *My view* panel to display a read-only list of Favourites links.
You are here	The breadcrumb trail displays the currently selected position within the organisational structure; a Group or Subscriber.

8.1.1. Selecting the Billing-period

A7 uses *Billing-periods* in conjunction with the *Organisational structures* to allow you to view usage and/or charges for a selected billing-period.

The *Billing-period context control* panel displays each of the billing-periods loaded into *A7* (a maximum of 13).

From the *Billing-period context control* panel, select a **billing-period**

Figure 24: Sample Billing-period Context control Panel

The page dynamically refreshes to display the usage and/or charges for the selected billing-period and structure.

8.1.2. Selecting the organisational structure

The Structure browser control allows the navigation and selection of each of the assigned *Organisational structures*.

The structures available to a user depend on that user's permissions but may include any of those described in *Table 3 (page 4)*.

View a previous billing-period

To view a previous billing-period using the organisational structure as it was:

1. Select the **billing-period** you wish to view
   A7 will change the context to reflect your choice.
2. From within the *Structure browser control*, select the (historical) structure you wish to view.

[7] The contents of My View will change depending on the page being viewed; see the following sections for further details.

Figure 25: Sample Structure Context control Panel

- From the *Structure browser control panel*, select the name of the structure to be viewed

To view a historical structure you must first select a previous billing-period.

8.1.3. Selecting a group or subscriber

The organisational structures hierarchy comprises one or more levels containing groups and/or *subscribers*. Use the Group/Subscriber expander icon to open the *Structure browser control*, then navigate-to (or search-for) the required *structure position*.

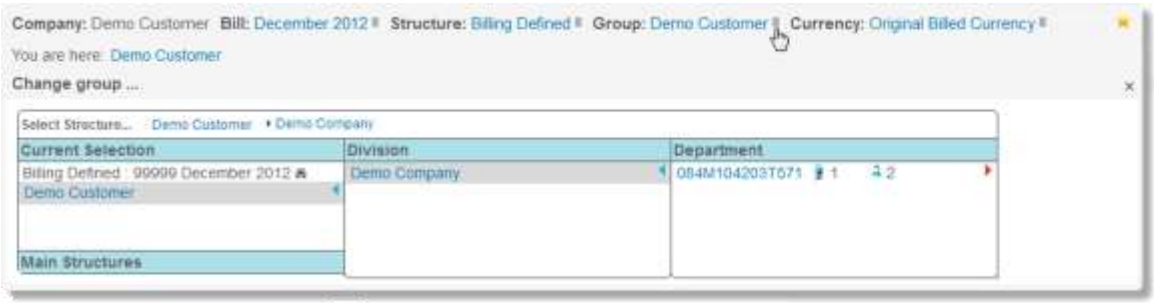


Figure 26: Structure browser control–selection of Group/Subscriber

Navigate to a group or subscriber

Drill-down an organisational structure's hierarchy to select the required group or subscriber. Use the following icons to navigate the structure:

- Expand
- Collapse
- Search

Figure 27: My view showing Group selection

Selecting a Subscriber changes the *Group context-control* label to *Subscriber*, as shown below:

Figure 28: My view showing Subscriber selection

Search for a group or subscriber

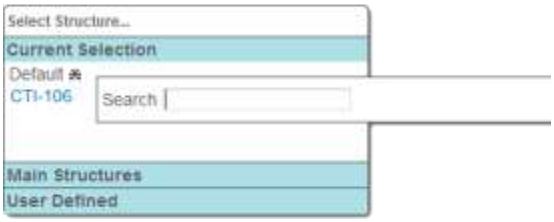


Figure 29: Structure browser control panel – Search feature

1. In the *Search filter* text box enter one of:
   - Group name;
   - Subscriber number;
   - Subscriber label.

> The search filter begins to work once three or more characters are entered; refine the search by typing in further characters.

> Numeric searches match from the beginning of the number.
> Alphanumeric searches match text anywhere in the name/label.

A7 displays a list of results that match the entered criteria.

2. Select an entry from the displayed list.

   Selection will refresh the page and display the information for your selected entry, including the *You are here* breadcrumb trail.

8.1.4. Selecting a Currency

Figure 30: My view's Currency context control

Select the currency conversion list

1. Use the Currency context-control to reveal the available *Currency conversion lists*.
2. Select the required currency from the available options

8.1.5. My Favourites link

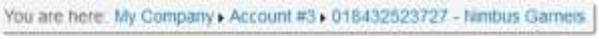
This icon expands the *My view* panel to display a read-only list of *Favourites* links.

Figure 31: Sample expanded My View showing Favourites

- Select a link to go directly to the selected functionality – see also *Section 8.5 My Favourites (on page 34).*

8.1.6. You are here

This control is only available on the *Home* pages.



The *You are here* link changes dynamically to reflect the currently selected group or subscriber as you drill-down the *Organisational structure* or use *Search* functionality.

The elements of the breadcrumb trail are themselves hyperlinks, which when selected will update the context to that *group* or *subscriber.*

8.2. Headline summary

Use the scrollable *Headline summary* pane to gain a quick overview of the state of the selected context.

Figure 32: Headline summary feature

The pane contains embedded hyperlinks to reports containing further details on the values displayed.

8.3. Total cost and Usage cost charts

Group (and subscriber) users see only the latest billing-period.

The *Total Cost* and *Usage Cost* feature provides a convenient way to view periodic changes throughout the year. It comprises two tabbed charts displaying:

- Total Cost – total of all charges (including usage charges) in each billing month loaded
- Usage Cost – total of usage in each billing month loaded

Figure 33: Sample Total cost and Total usage feature

Both charts use the *Billing-defined* structure.

The billing-periods visible to *top-level users* are determined by the structure to which they are assigned – as defined in *Table 11 (below)*.

Table 11: Billing periods visible to top-level users

Users assigned to top-level of	*Billing periods visible*
Default structure	All loaded billing-periods are shown.
Billing-defined structure	The currently selected billing-period is shown.
User-defined structure	The currently selected billing-period is shown.

8.4. My recent charges / invoices

8.4.1. My recent charges

Figure 34: Sample My recent charges feature

My Recent Charges shows summaries of:

- *Totals of recent charges* for the currently selected and previous billing-periods.

  These can be expanded to display a break down of the figures excluding VAT and the VAT amount
- *Subscribers* [8] in the currently selected structure and billing-period, which is expandable to display a break down by *Service Type*.

Subscribers loaded prior to June 2013 show a service type of Unknown.

The *Cost Adjustment Icons* indicate how each of the figures has changed since the last billing-period (hovering over an icon will display the previous bill's figure).

Depending on assigned permissions and features available *My recent charges* may also display quick links to the:

- *Charge-categorisation* report – see *Topic 15.1.1 (on page 68)*;
- *My Recent Charges – Invoices* feature;
- *Usage report – see* *Topic C.3.5 (on page XII)*.

8.4.2. My recent invoices

Available to Account level users (or above).

Figure 35: Sample My recent charges - Invoices feature

The *My recent invoices* feature displays a list of loaded invoices (five per page) for the currently selected billing-period, with the option to download a PDF version.

Individual invoices can be searched for by *Invoice number*.

[8] Sample image shows this labelled as Lines.

You do not need to be viewing the *Billing-defined structure* to see the list and download PDF invoice copies.

8.5. My Favourites

The *My favourites* feature displays a list of current *Favourites* (up to 10 can be stored).

You cannot add *Favourites* here, but you can delete them using the *Delete* icon.

The following types of items may be added to *My favourites*:

- All reports (including *My reports* and *Usage tagging reports*);
- Custom trend charts.

For more on adding favourites …

9. Downloads

A7 provides a range of downloads including data export, invoices, unbilled calls files and accounts. All are accessible from the *Downloads* tab on the *Main menu.*

Figure 36: Download feature, Data exports tab sample

9.1. Data Exports

Data exports are available to all users irrespective of their position in the *Organisational structure*. Three export types are selectable:

Export type	Description	Format
Usage Download	The *Usage Download* is available to all users and includes all usage records. Invoice/charge records are not included.	CSV
Short Subscriber Summary	The *Short Subscriber Summary* data export is available to all users and downloads a file of up to 20 fields associated with an individual subscriber.	CSV
Long Subscriber Summary	The *Long Subscriber Summary* data export is available to all users and downloads a file of up to 50 fields associated with an individual subscriber.	CSV

Schedule a download

Downloads must be scheduled in order for A7 to generate the file and make it available.

Spreadsheet compatibility

An A is displayed as the currency symbol in the cost column if the version of Excel used is Excel 2003 SP3 or earlier.

If the download is opened in a text editor (such as Notepad) the associated currency symbol is displayed instead of the A.

1. For the required *Export type*, **Schedule icon**

   A background job is initiated to create the file.

   You can view other pages while the data extract is being created

Data Export	File Size	Line Count	Status	Action
Usage Download	38.30 MB	217065	Ready for download	
Short line summary	-		Not scheduled	
Long line summary	-		Not scheduled	

   Files ready for download display their size and number of lines they contain.

2. For the required *Export type*, **Download icon**

   The file is downloaded to your default download location.

[Alternatively] To recreate the file, **Reschedule icon**

9.2. Invoices

Use this tab to download a PDF copy of a Bill (if applicable).


Invoices

Invoices

Search by invoice number for Clear Search Filter

Group Desc	Invoice no.	Date	Total inc tax	PDF
C129064T	0146019226	01-Dec-2012	£5,587.90	
084M104203T571	011327M1500-832-14202T00	03-Dec-2012	£18,467.55	
580318045 - 00001	000065837398	18-Dec-2012	£2,674.29	
670003799 - 00001	000065848978	18-Dec-2012	£1,969.71	
670065265 - 00001	000065849650	18-Dec-2012	£10,890.54	

Download all PDF invoices

Found 5 invoices

Figure 37: Download Invoices tab sample

Search for the invoice to download using *Search by invoice number* search functionality, or download all PDF invoices.

To download a Bill, select **Download PDF icon**

Users with a large number of invoices may see a warning message displayed whilst *A7* prepares the list of downloadable invoices.

9.3. Unbilled

The *Unbilled File Download* is available only to users assigned to the top-level of the Default structure; other users may see the tab, but no downloads are available to them.

Displays all accounts having available unbilled downloads for the selected month, summarising total: Calls, Charges [9] and Duration.

The *Unbilled file download* contains unbilled calls per day/month for the preceding three months, including any available unbilled calls since the previous bill was loaded.

[9] The charges include usage charges only (that is, the cost of the calls). Only call detail records are included in the download, not any other charges

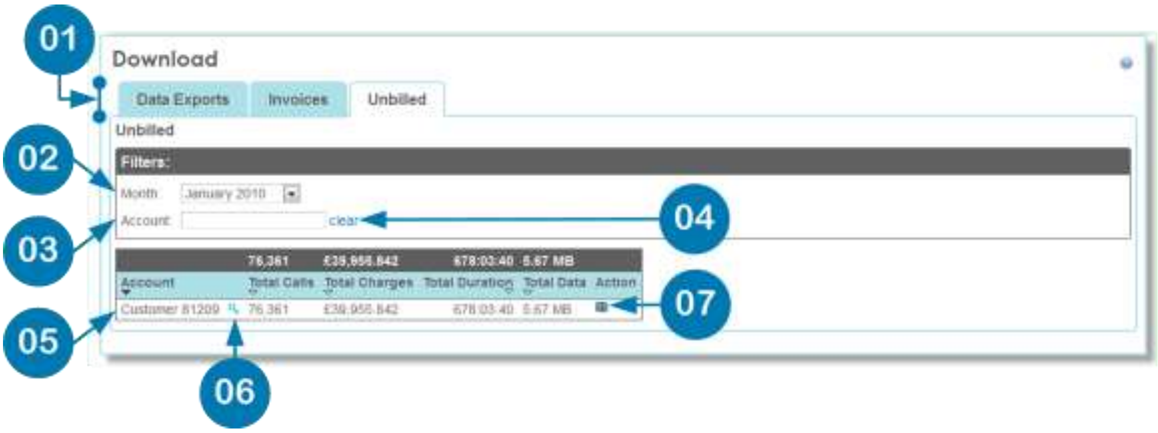


Figure 38: Download Unbilled UI map

Table 12: Download Unbilled UI components

Key	Item	Function
01	*Download* tab	Select **Unbilled** tab. Unbilled calls data is for download only; it is **not** available for analysis in *A7*.
02	*Month* drop-down list	Filter to select from last three months; (default is the latest month). This feature has its own month selector, which is independent of the *Current analysis context's Billing-period*.
03	*Account* filter	Filter by account number or name.
04	*Clear filter* hyperlink	Clear any applied filter.
05	Returned list of Unbilled Calls files	The list contains: ▪ A drill-down icon 06, which displays a list of individual *Unbilled Calls files* for the selected month/account combination; ▪ A download file icon 07 , which downloads all *Unbilled Calls files* for the account. Unbilled data can take 24-48 hours to be loaded into *A7*.
06	*View (Account) Details* icon	Displays a new list containing one row per day [10] (of the selected month). Each row shows the calls, charges and duration summaries, for the individual days listed, plus the name of the file for that day. A single-day file may contain unbilled calls from more than one day. Select the associated icon to download the specific file for the day as a ZIP file containing a single CSV.
07	*Download file* icon	Download a zipped file *Unbilled Calls files* containing each individual CSV file for the selected month.

Unbilled files can also be received by sFTP – see *Ch. 18.7 Managing sFTP (on page 120)*.

[10] Not every day will appear in the list, because the availability of unbilled calls depends on their output from the source billing system.

10. Support

10.1. Frequently Asked Questions

The *FAQ* feature provides a standard list of questions relating to *A7*. The questions include an 'expand and contract' option for each question and answer.

10.2. Download

The *Download* feature tab displays a list of links to downloadable resources, for example user guides or videos.

10.3. Help

The *Help* feature enables search and display of help topics.

10.4. Feedback

The *Feedback* feature allows you to record feedback (for example, suggestions or questions about the site). Questions can be associated to a specific query by using the drop-down box on the right of the page.

10.5. Contact Us

The *Contact us* feature displays the official contact details, that is, postal addresses, phone numbers and email addresses.

Part four:

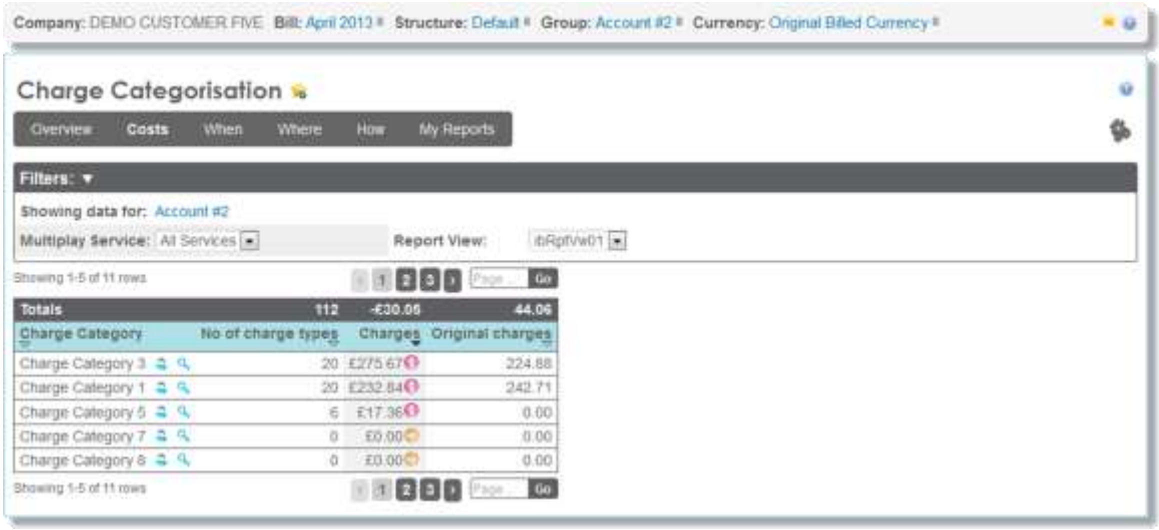
Reporting features

Chapters in Part four:

11. Understanding report components

All reports share the common elements described in this chapter; unless the report's definition explicitly specifies a variance or constraint – see *Ch. 15 Report definitions (on page 68)*.

Most *A7* reports [11] ultimately drill-down to *Report detail level*, which shows usage or charge data depending on whether they are usage- or charge-based reports.



Reports typically comprise:

- A common user interface;
- One or more *Report filters* – *Topic 11.1.3 (on page 41)*;
- One or more Report summary level(s) – *Topic 11.5.1 (on page 47)*;
- A *Report results summary* page – *Topic 11.5.2 (on page 47)*;
- One or more *Report detail level* page(s) – *Topic 11.5.3 (on page 49)*.

11.1. Data selection

11.1.1. My view

The *My view* component sets the *Current analysis context* for the report – see *Section 2.3 (on page 7)*.

11.1.2. Report category menu

The *Report category menu* provides easy access to the *Report overview* and the *Report categories*, enabling users to quickly switch between reports.

Figure 39: The Report category menu bar

[11] With the exception of the *Invoice Detail* report.

11.1.3. Report filters

A7 Report filters apply to the returned list of results, filtering out those that do not match the specified criteria.

Figure 40: Report filters pane

The tables below show both the generic filters and those specific to *Usage tagging reports*.

11.2. Report presentation

11.2.1. Report options menu

The *Report options menu* presents a context-sensitive set of options, with each option working on the selected report; for a list of available options see *Table 13 (below).*

Access the options using the *Report options* icon:

Table 13: Available report options

Name	Icon	Description
Chart		Click on this icon will open up a pop-up display of the report chart. The option to print the report and change the display to pie, line or bar chart is available. Please note not all reports display a graph. For individual columns within a report the chart will only be displayed if a numeric column such as *duration*, *costs*, *averages*, etc. are selected by sorting on one of these columns), otherwise no chart icon will be displayed.
Configuration		A7enables the user to select and optionally save a custom report view comprising the: ▪ Columns to appear in the report (some columns are mandatory), ▪ Report sequence ▪ Number of rows per page. If the width of the selected columns exceeds the screen width then a horizontal scrollbar is displayed to enable viewing of off-screen column contents. By default all columns are displayed See: *11.2.2 Report views (on page 42)*.
Download		Save the report you are viewing to a selectable location in one of a number of formats, including: Each format includes a number of selectable options. Reports containing a large number of records display the message `Please wait while we prepare your report".` Leaving this page before the report is generated will terminates the run and you will need to rerun the export If you try to export more than 5,000 records a message will request you to refine your search, or to set the query up as a Scheduled report.

Name	Icon	Description
Email		This allows you to e-mail the report you are viewing to the address you registered with *A7* in any of the exportable formats. Reports containing a large number of records display the message `Please wait while we prepare your report.` If you move away from this page before the report is generated you will need to rerun the export If you try to export more than 5,000 records a message will request you to refine your search, or to set the query up as a Scheduled report.
Print Preview		If you select the print icon, the page will display in flat format, with a further option to print the information displayed on the page or return to the report.
Schedule Report		Creates the report as a *Scheduled report*. These reports are run using a background service and are not subject to the export limits described below. These reports can be: ▪ Generated / run immediately or once every bill load ▪ Downloaded through the Scheduled reports Management screen and / or emailed.

11.2.2. Report views

A7's *Selectable columns* feature enables users to create *Report views*, which display only the columns they are interested in; although some reports contain columns that are mandatory – see: *Month* in *Figure 41 (below)*.

Using this feature you may define the:

- Name of the saved *Report view*;
- Relative positions of the selected columns; using drag-and-drop to arrange them as required;
- Sort column and sequence direction;
- Number of rows displayed per page.

Report view scope …

Report views apply only to the selected report and report level. So, for example, columns removed at the top-level are not automatically removed at the report detail level (nor in any other report), unless an additional report view(s) is created to do this.

Legacy view …

Service-providers can opt to retain the fixed system-defined column-sets and not implement selectable columns. However, this may not display all reports in a tidy manner.

This is an unsupported option.

Figure 41: Report view configuration panel

The *Default report view* comprises all the service-provider defined columns for that report, but does not include *Export only* columns.

The selected, Report view is:

- Remembered and displayed whenever the report is used;

- Saved with Scheduled report details and used as the scheduled report view even if the *Report view* itself is changed or deleted;
- Use when a report is printed; A7 neither truncates, trims nor rearranges columns to fit the page width. Use the browser's *Shrink to fit* option;
- Ignored if the *Report view* is invalid (that is, it contains columns not available in the selected organisational structure) – the *Default report view* is displayed in its place. This caters for columns such as *Subscriber version,* which are available in the *Billing-defined structure*, but not in the *Default structure*.

Report columns to the left of (and including) the drill-down icons are mandatory columns.; they can neither be moved nor removed.

11.2.3. Report total lines

Some tables display a *Header summary* row, which summarises the data in the table; either as totals or averages.

Totals	1,384	0 bytes	56:48:56	£178.5084

11.2.4. Report average lines

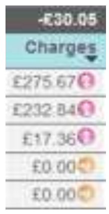
Report averages are derived using only duration-based *usage* for reports which split *usage* into data, events and duration.

{Configurable} The average column may be removed from reports during system setup

Example

The Cost allocation report sums usage (duration, events and data) and divides the sum by the number of duration-based calls to obtain an average usage figure.

11.2.5. Cost Adjustment Arrows



The Cost adjustment icons are displayed alongside cost figures on the reports.

These arrows show whether the cost has decreased, increased or stayed the same since the last bill.

11.2.6. Column scrollbars

If the number of columns selected for display in a report exceeds the available display width then A7 displays a horizontal column scrollbar below each level of the report (that is, not the browser page).

The scrollbar scrolls only columns appearing after the drill-down icons (that is, selectable columns; mandatory columns remain fixed).

11.2.7. Sorting

The original *Dialled number description* is used when sorting, not the amended phone book version (if present).

Most reports allow for sorting on selected columns.

The solid arrow icons ▲▼ indicate the currently selected sort column and the direction of the sort (▲ ascending or ▼ descending).

- Clicking a selected sort icon reverses the sort sequence;
- Clicking on a different sort icon (empty arrow) sorts the report by that field.

11.3. Report navigation

11.3.1. Drill-down icons

Name	Icon	Description
Select detail		The *Select detail* icon drills down into the data to show the actual usage or charges. It initially displays the *Summary of search results* screen (in some reports intermediary summary levels precede the Summary display, each showing a greater level of detail). From the *Summary of search results* page, **View detail** A7 displays the *Report details* level – see *Ch. 11.5About the report structure (on page 46)*. The *View detail* button is unavailable if it would return too many results. Refine the search to reduce the volume of results returned.
Select group		The *Select group* icon drills down through the hierarchy of the *Organisational structure*. **For example:** Click on this icon whilst viewing the top-level of your structure to view the group-level below it and so on down to the usage detail level.

11.3.2. Page browsing

Page browse controls display at the top and bottom of every page whenever the report contains more rows than the number of lines per page.

Report pages …

Report results are organised in result-sets (that is, pages) containing a user configurable number of lines per page {Default=15}.

Figure 42: Page browse controls

Page browse controls comprise, from left to right, as shown in *Figure 42 (above)*:

Table 14: Page browse control icons

Name	Icon	Description
Position text message	Showing 1-5 of 11 rows	The *Report position* message showing the number of rows in the report and the row number range currently being displayed
Previous page icon	‹	A (Go to the) *Previous page* icon
Page number icon	2	Two or more *Page number* icons: ▪ The page number for the first page and the final page are always displayed, ▪ Up to three consecutive intermediate page numbers are also displayed – for example, `2, 3` and `4` in Figure 42 *(above)*;
Next page icon	›	A (Go to the) *Next page* icon;
Page number text box	Page ... Go	A *Page number* search filter text box and *Go* hyperlink Input a number and **[Go]** to go to that page.

11.3.3. Report overview observations

Figure 43: Report overview pane showing Observations

In addition to displaying Report titles as navigational hyperlinks the *Report overview* also {Configurable} displays *Observations* for selected reports. The example in *Figure 43* shows an observation for the *Transmission type report.*

Selecting the *Observation*, which is also a hyperlink, will launch the relevant report.

11.4. Report functionality

11.4.1. Report actions menu

The *Report actions menu* presents a context-sensitive list of actions to be applied to the selected row – as shown in *Table 15 (below)*.

Table 15: Actions within the Report action menu

Name	Icon	Description
Delete		Click to delete the selected object.
Download data export		Click to download the selected data export object.
Edit		Click to edit the selected object.
Run		Click to run the *Scheduled report*.
Schedule report/export		Click to schedule or reschedule the selected report or data export.
Stop		Click to stop running a *Scheduled report*.
Test settings		Click to test the sFTP settings.
View		Click to view the selected object.

11.4.2. Edit dialled number description

The *In-line phone book editor* icons are available in a number of reports, selecting either icon launches the *In-line phone book editor* pop-up panel.

See *Chapter 19* Managing phone books *(on page 122)* and in particular *section 19.1* Using the inline phone book editor.

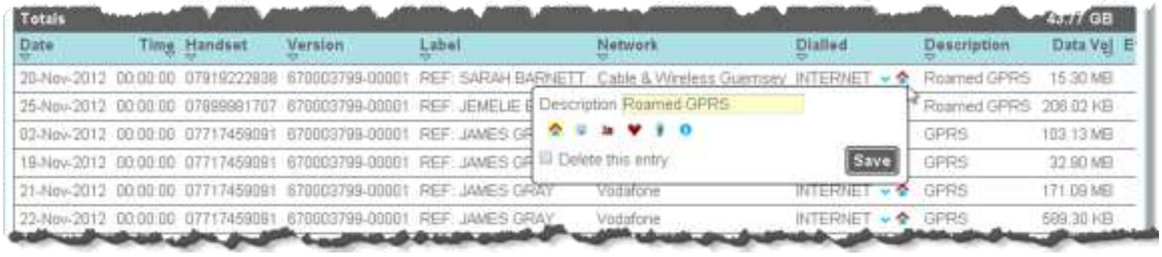


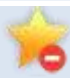
Figure 44: Inline editor panel

The features provided by the *In-line phone book editor* panel enable users to:

- Add or edit a *Dialled number description*;
- Select a *Dialled number* icon;
- Delete the description; the entry reverts to the description supplied in the data and the default icon.

11.4.3. My favourites icons

Use the *My favourites* icons to mark a report as a favourite, or to remove a previously marked report.

Name	Icon	Description
Add to My favourites Icon		Add up to a maximum of ten reports (and/or custom Trend charts). These icons allow the addition or removal of the current report to/from the list of *My Favourites*. To add a report Navigate to the report and click the *Add* icon. The icon changes to the *Remove* icon; If you try to create an 11th report, A7 displays a dialog stating that the new report (or Trend) will replace the least used Favourite; you needs to confirm before the replacement takes place.
Remove from My favourites Icon		Click to remove this link from *My favourites*. To remove a report Select the **Remove** icon. A confirmation dialog is displayed before the report is actually removed [Alternatively]Remove favourites using *My Favourites* on the *Home* page.

11.5. About the report structure

Reports display information in column-sets , with some providing an optional chart views.

The A7 report structure typically comprises:

- A common user interface;
- One or more *Report filters* – *Topic 11.1.3 (on page 41)*;
- One or more Report summary level(s) – *Topic 11.5.1 (on page 47)*;
- A *Report results summary* page – *Topic 11.5.2 (on page 47)*;
- One or more *Report detail level* page(s) – *Topic 11.5.3 (on page 49)*.

Reports display all columns left aligned except for costs and numbers columns, which are right aligned.

11.5.1. Report summary level

The *Report summary level* displays a summary of the report results aggregated at a data level, for example by Charge-category as shown in *Figure 45 (below)*.

Figure 45: Report feature showing Report summary level details

A *Report summary level* page comprises:

- A *My favourites* icon (that is, either an *Add to* or a *Delete from* icon)
- The *Help* icon;
- The *Report category menu;*
- The *Report options menu* icon*;*
- An expandable *Filters* pane containing one or more filters, depending upon the report The *Showing data for* filter is always present;
- The *report totals line*;
- The *Report summary row*(*s*) with *Select detail* and/or *Select group* drill-down icons.
  - *Select detail* drills down the data hierarchy, for example to a charge sub-category, and ultimately to the *Report results summary – Ch. 11.5.2 (below)*;
  - *Select group* drills down the selected structure's hierarchy, for example from a Group level to a list of Subscribers within the selected group.

  Your starting point in the hierarchy determines which levels you can drill-down into.

  Ultimately this drill-down displays the *Report results summary.*

11.5.2. Report results summary

Summary of search results

This shows a summary of the results, and you can either run the report via the *View detail* button or use the *Back to report* button to return to the summarised level of the report. Different fields are shown for usage and charge based reports.

Figure 46: Report results summary–Summary of search results (usage)

Figure 47: Report results summary–Summary of search results (charge)

Reporting Criteria

The *Reporting criteria* panel displays a list of filters currently applied to the selected report.

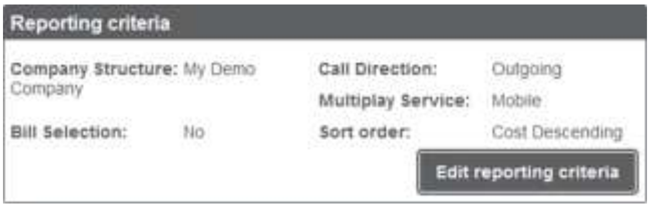


Figure 48: Report results summary–Reporting criteria (usage data)

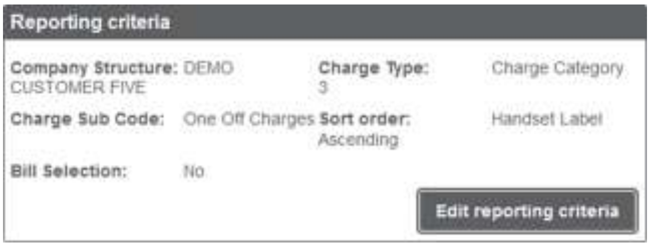


Figure 49: Report results summary–Reporting criteria (charge data)

Filters are auto-applied as you drill-down through the summary-levels of the report.

Select **Edit reporting criteria** to launch the *Usage* or *Charge Wizard*.

Presentation Criteria

The *Presentation Criteria* panel allows further refining of the report by grouping and ordering the results.

Focus in on what is important …

Too many results returned? Try setting the presentation criteria to show only the top 50 records.

- Group by = Area code
- Order by = `Usage Descending`
- Max rows = `50`

Some reports also provide a chart view.

Figure 50: Report results summary–Presentation criteria panel

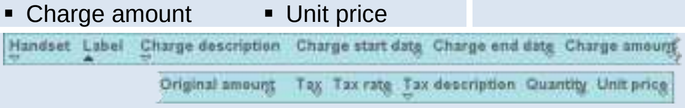
11.5.3. Report detail level

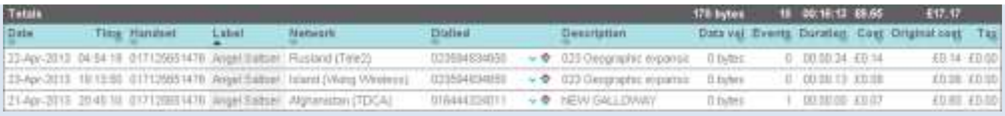
The *Report detail level* displays usage or charge transaction details, depending on whether the report is charge- or usage-based

Table 16: Report results summary–Report detail level

At the Report detail level each report presents its data using one of the column-sets defined in Table 17 *(below)*, depending upon whether it is a usage- or charge-based report.

Table 17: Report detail level column-sets

Report basis	Report column set		Reports using this basis and column set	
Charge detail	▪ Subscriber ▪ Label ▪ Charge description ▪ Charge start date ▪ Charge end date ▪ Charge amount	▪ Original amount ▪ Tax ▪ Tax rate ▪ Tax description ▪ Quantity ▪ Unit price	▪ Charge-categorisation ▪ Cost allocation ▪ Cost Allocation ▪ Fixed Cost	▪ Subscriber Summary ▪ Invoice backup ▪ Invoice detail ▪ Invoice Statement
				

<table>
<tr><th>Report basis</th><th>Report column set</th><th>Reports using this basis and column set</th></tr>
<tr><td></td><td colspan="2">
</td></tr>
<tr><td rowspan="3">Usage detail</td><td>▪ Date
▪ Time
▪ Subscriber
▪ Version
▪ Label
▪ Network
▪ Dialled
▪ Description
▪ Data vol
▪ Events
▪ Duration
▪ Cost
▪ Original cost
▪ Tax</td><td>▪ Cost range
▪ Billing Period
▪ Billing Period History
▪ Bundle Usage
▪ Daily Distribution
▪ Destinations
▪ Duration Range
▪ Frequently Dialled
▪ Internal
▪ Monthly Trend Analysis
▪ Multiplay Service
▪ Peak/Off-Peak
▪ Roamed
▪ Tax Exempt
▪ Transmission Type
▪ Usage
▪ Usage By Direction
▪ VPN</td></tr>
<tr><td colspan="2">
</td></tr>
<tr><td colspan="2">
</td></tr>
</table>

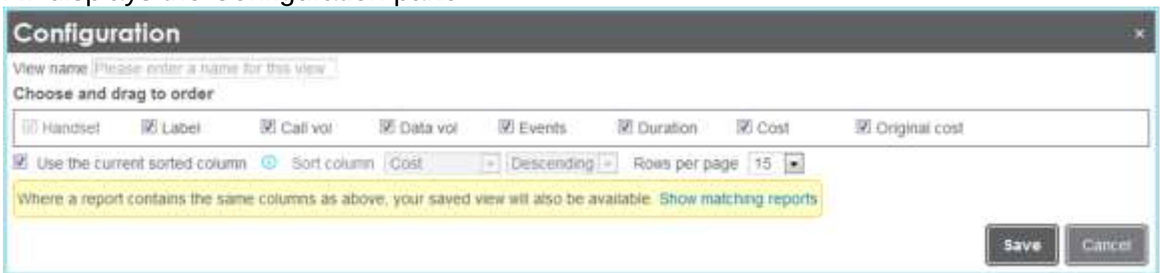
11.6. Report configuration

Each report displays a *Default report view*, which you can customise by creating one or more alternative *Report views*.

Initially reports display the *Default report view*, but once an alternative *Report view* is defined and used, that view is remembered and displayed whenever the report is used.

Configure a report view

1. From the *Report category menu*, select a `<report name>`
2. From the Report options menu, select **Configure**
   A7 displays the Configuration panel.



3. Input a name as *View name*
4. [Optionally] Use the check boxes to select each column to be displayed.
5. [Optionally] Drag-and-drop the columns into the required order.
6. [Optionally] Specify a different sequence for the report:
   i. Deselect the Use the current sorted column checkbox
      A7 activates the Sort column drop-down lists

ii. Select a sort column from the drop-down list, Sort column.

Sort columns do not need to be displayed.

iii. Select a sort sequence from the drop-down list.

7. [Optionally] Select the number of lines per page from the drop-down list, *Rows per page.*

8. **Save** to continue

   A7 validates and saves the view.

   A7 displays the report using the saved view details.

   [Alternatively] **Cancel** to exit the panel without saving the view details.

Report view selection

1. From the *Report category menu*, select a `<report name>`

   If more than one *Report view* exists, A7 displays a *Report view filter*

Figure 51: Report filters pane showing Report view filter

2. From the *Report view* drop-down list, select the required `<view name>`

   A7 displays the report level in the selected view format.

12. Main reports

12.1. Using the Report Overview

The *Report overview* page displays the titles of all available reports grouped by type; that is: *Costs*, *When*, *Where*, *How* and *My Reports*.

View the report overview

From the *Main menu bar*, select **Reports**

A7 displays the *Report overview*.

Figure 52: Report overview page – example

The name of the last report viewed in a group is highlighted (in bold font).

12.2. Using Predefined reports

Related information

Chapter 15 Report definitions 68

View a report

1. From the *Report overview* panel, select the **required report name**.

   [Alternatively] From the *Report category menu*, select required **report name**.

   A7 displays the selected report*;* most display a summary level initially.

Figure 53: Report showing summary level

2. [Optionally] Apply any data filters, as required, to focus the results returned by the report – see: *Topic 11.1.3 (on page 41)*.
3. [Optionally] Use the drill-down icons (where available) to view summary detail down to Report detail level.
4. [Optionally] Select a *Report options menu* action – see *Topic 11.2.1(on page 41)*
5. To return to the Report overview; from the *Report category menu,* select **Overview**.

   [Alternatively] From the *Report category menu,* select *Report group*»**Report name**.

12.3. Using custom reports

A7's *custom report* feature – *My Reports* –allows you to:

- Create and run *custom report*s on your billing data,
- Manage and re-run your Scheduled reports.

Base the reports on either:

- *Usage* data using **Call Reports – New**
- *Charge* data using **Charge Reports – New**.

12.3.1. Viewing custom reports

From the *My reports* pane on *Report overview*, select `[Saved report name]`

[Alternatively] From the *Reports menu bar*, **My Reports»** `[Saved report name]`

A7 runs the report `[Saved report name]` and displays the results.

12.3.2. Creating usage reports

From the *Report category menu*, select **My reports»Call Reports – New**

A7 displays the Call Reports – New page comprising a number of tabs which allow you to define your usage based report.

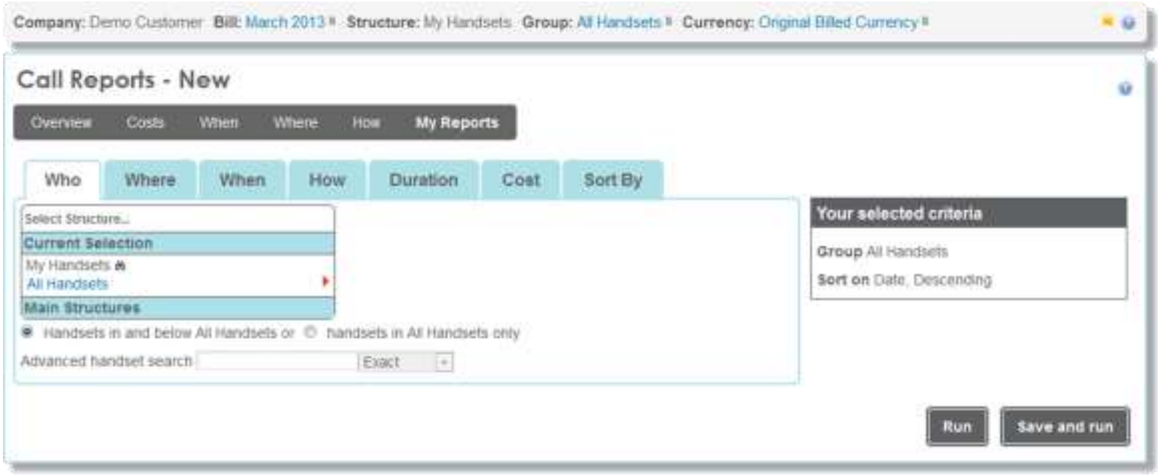


Figure 54: Usage reports – New

Each tab presents one or more filters. Just select and set the ones you need, then **Run** or **Save and run** your report (to be re-used later as required).

The available tabs are:

- **Who**

  This dictates the source content for *custom reports* instead of *My View's Current analysis context*

  Use the *Structure browser control* to select the *Organisational structure* you wish to report on, and within that select either:

  - The whole structure
  - A group within the *Organisational structure*
  - An individual subscriber or
  - A range of *subscribers*

Advanced subscriber search ...

Using the Advanced subscriber search you can select a range of subscribers and vary the criteria using the drop-down list:

- Starts with
- Contains
- Exact

When an exact subscriber selection is made via the Structure browser control the text box, dropdown and existing radio buttons are removed from the screen. If a group is selected via the Structure browser control they will re-appear.

To use the search:

- Input a text string to search for.
- Indicate whether the string must be present or absent in the subscriber.
- Specify the match type as Starts with; Contains or Exact.

- **Where**

  Select filters based on the usage destination, for example a *Dialled Number* or *Dialled Description;*

- **When**

  Limit the report search to a defined time-frame;

- **How**

  Focus the report on a specific type of usage (for example, *data* or *VoIP* usage)

- **Duration**

  Select by usage duration (longer or shorter than);
- **Cost**

  Select by usage cost (in or greater than a defined value or range);
- **Sort By**

  Select filters to further narrow your usage report and define the report sequence.

A7 displays *Your selected criteria* in a pane on the right hand side of the screen.

Create a usage-based report

1. From the Reports menu, select **My Reports»Call reports – New**

   A7 displays the *Call Report Wizard* tabs.
2. Within the *Who* tab's *Structure browser control,* select the structure and structure position(s) to report on.

   This selection governs the context for *custom reports*, not *My view*.
3. Set the remaining report criteria using the appropriate tab (or tabs)
4. Select **Save and run**

   A7 saves the report and adds it to the list of available reports displayed on the *Report overview* page and within the *My reports* menu.

   A7 runs the report and displays the *Report detail summary* page.

   [Alternatively] Select **Run**

   A7 runs the report – without saving its definition.

12.3.3. Creating charge reports

The *Charge Reports Wizard* presents you with a number of tabs which will allow you to specify selection criteria for your charge-based report.

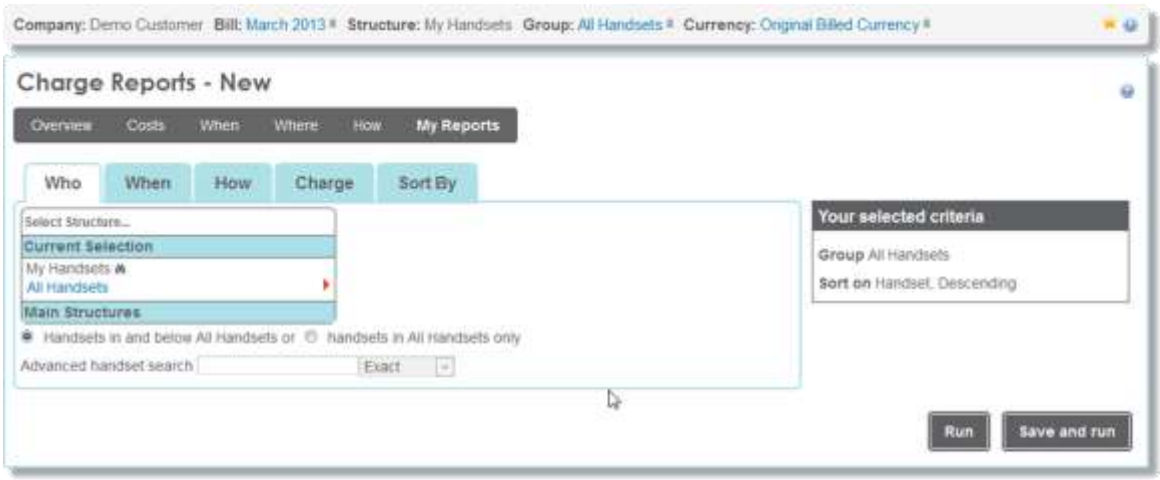


Figure 55: Charge reports wizard sample

Each tab presents one or more filters. Just select and set the ones you need, then **Run** or **Save and run** your report (to be re-used later as required).

As you build up your report the *Your selected criteria* box on the right hand side of the screen display the selected criteria.

The available tabs include:

- **Who**
- Select the structure and structure position(s) to report on using the *Who* tab.

  The *Who* tab governs the source content for *custom reports*, not *My view's Current analysis context* controls.

- **When**
  Limit the report search to bills within a defined time-frame;
- **How**
  Focus the report on a specific type of usage (for example, *data* or *VoIP* usage)
- **Charge**
  Select by charge value (in, or greater than, a defined value or range);
- **Sort By**
  Define the report sequence.

Create a charge-based report

5. From the Reports menu, select **My Reports»Charge reports – New**
   The *Charge Report Wizard* tabs are displayed.
6. Proceed see *Create a usage-based report (on page 55)* step-2 onwards.

12.4. Using Scheduled reports

12.4.1. About Scheduled reports

Scheduled reports are available to all users

The Scheduled reports feature enables you to run, download or email reports on an ad-hoc or regular basis; that is, they may either be run once or run each time new data is loaded.

You may schedule reports to run in any standard *A7* formats and on any organisational structure; however reports on historical structures run only once.

Constraints

- Each Scheduled report allows you to amend the download format, when it is run and who it is sent to, BUT you cannot amend the actual content of the Scheduled report.
- You cannot overwrite an existing Scheduled report with a new one, instead you must create a new one and delete the old one.
- Where the report encounters a group or level that no longer exists it will return no rows.
- Reports unsuitable for *Scheduling* do not include the action, *Schedule report*, as an option.

- If you schedule a *custom report* any changes made to the *custom report* are reflected on the next scheduled run.

12.4.2. Scheduled report Management

The *Scheduled report management* feature displays a list of the reports you have scheduled, including history of previous reports.

Scheduling reports

Most reports can be set-up as Scheduled reports, which can be run, downloaded and emailed to individual users or groups of users.

Figure 56: Scheduled report management feature

If you want to email your reports you must first enter the contact details – see *Managing Email contacts (on page 58)*

Create a Scheduled report

1. Within the report you wish to schedule, select the required Current analysis context.
2. [Optionally] Select the required *Report view.*
3. From the *Report options menu*, select **Schedule**

   A7 displays the report options panel.

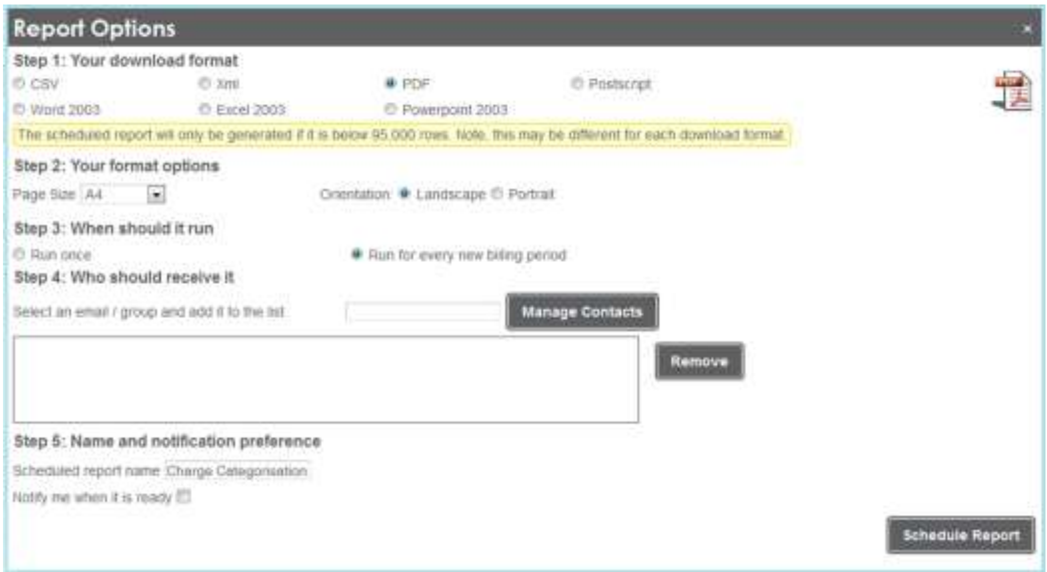


Figure 57: Scheduled report management's Report options panel

4. Choose your download format

   These are the same formats used for emailing and saving reports.

5. Choose your format options

   As above these are the same format options used for emailing and saving reports.

6. Specify when it should it run

   Schedule reports can be run as a one off, or each time new billing data is loaded, by default the report will run each time new data is loaded.

7. Select the report recipients

   Input a contact address in the ***Who should receive it?*** text box.

   Type-ahead functionality displays a list of matching items for you to select from.

   Select **Manage Contacts** to define new contacts.

   You must create the individual email addresses (and optionally groups) –see *Managing Email contacts (below)*.

8. [Optionally] Input a ***Scheduled report name***

   By default the Scheduled report name is pre-populated but you may change this if required.

9. [Optionally] Select ***Notify me when its ready*** option

   This option sends you email notification when the report is ready is available; Off by default

10. **Schedule report** to continue

    A7 creates the scheduled report using the selected details.

    [Alternatively] **Close panel** icon to exit without saving the scheduled report details.

Managing Email contacts

You add and manage your contact email addresses using the *Manage Contacts* button displayed within the *Scheduled report's Report options* panel.

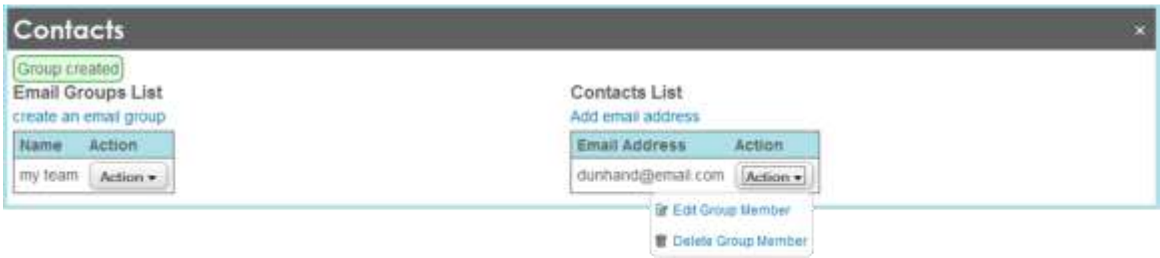


Figure 58: Scheduled reports Manage Contacts panel

Before saving each Email address you must agree a disclaimer accepting responsibility for any emailed Scheduled reports sent out by the system using that address.

Use the *Actions* buttons in *Email groups list* and *Contacts lists* to edit and delete existing email groups and addresses.

Deleting an email address removes it from all *Scheduled reports*.

Changes to email addresses are reflected in all *Scheduled reports* the user is assigned to.

Add an Email address

1. Within the Schedule report panel, select **Manage Contacts**
   A7 displays the *(Manage) Contacts* panel *(Figure 58 above)*.
2. **Add email address**
   A7 displays the *Contacts – Add new email address* panel.

Figure 59: Manage contacts panel showing add new email address

3. Input:
   - A valid email address (twice to avoid mistyping errors)
   - A name and description for your email contact.
4. Select the **disclaimer** checkbox
5. **Save** to continue.
   [Alternatively] **Close panel** icon to exit without saving the details.

Create an Email group

1. Within the *Schedule report* panel, select **Manage Contacts**
   A7 displays the *(Manage) Contacts* panel.
2. Select **Create an email group**

A7 displays the *Contacts – Add email group* panel.

Figure 60: Manage Contacts panel showing create contact group

3. For each email address to be added:

> The type ahead functionality searches for existing email addresses once three or more characters are input

i. Select to add the require item.

4. For each email address to be removed from the group:

i. Remove to continue

5. Select **Disclaimer** check box

6. **Create group** to continue.

[Alternatively] **Close panel** icon to exit without saving the details.

13. Trend charts

The *Trends* page displays charts based on usage data covering more than one billing-period. Select from a range of predefined charts or create custom charts.

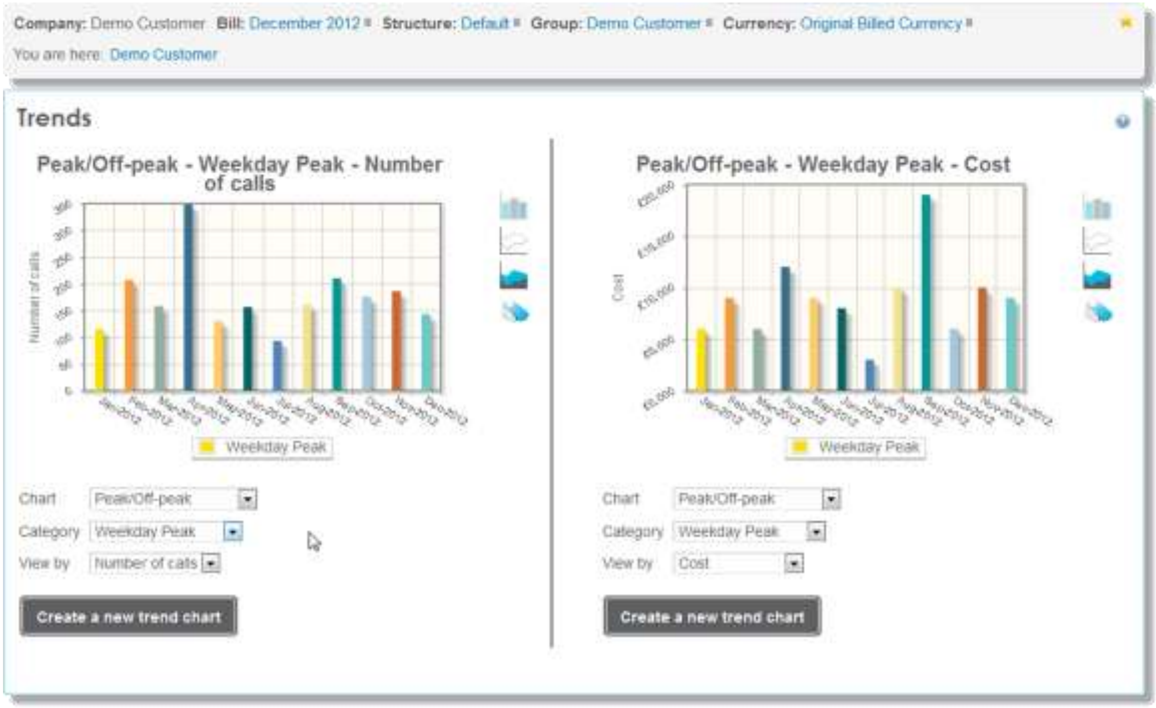


Figure 61: Sample Trends Chart page

> **Visible billing periods …**
>
> When Top level users and group users are created against the Billing defined organisational structure they see only the current – and any future – billing period; previous billing periods are not shown.

13.1. Pre-defined trend charts

A7 provides eight predefined charts:
Destinations, Call Period, , Peak/Off-peak, Roamed, VPN, Bundle usage, Transmission type, Service summary and *Voice vs SMS*.

Figure 62: Trend chart components

Functional components

Table 18: Trend charts functional components.

Key	Component	Description	
01	*Chart title* bar	Comprises the *Chart* name, *Category* and *View by* selections.	
02	*Chart type menu*	Defines the type of chart to be displayed (that is, a Bar, Line or Area chart). *Line* and *Area* chart options are not presented when only a single bills exists for the current analysis context.	
03	Y-Axis	The Y-axis represents the measure, for example *Call volume*, or *Data volume*.	
04	*Print* icon	Prints the displayed chart.	
05	*Trend chart* parameters	*Chart* drop-down list	Displays a list of predefined *Trend charts* followed by any *Custom trend charts*.
		Category filter	Selects a sub-category of the data (for example, *Destination category* for the *Destination trend chart*. [12]
		View-by filter	Selects the y-axis (for example, *Call* or *Data volume*).
06	*Edit* hyperlink	Launches the *Edit my trend chart* panel[13] to edit or clone existing charts.	
07	*Create a new Trends chart* button	Launches the *Edit my trend chart* panel to enable creation of a new chart.	

Use the *Category* and *View by* drop-down lists to select:

- The category you want to filter by;
- The view you want to see.

For example

To view the cost of international calls over the months loaded:

- Select Destinations from the Chart drop-down box
- Select International from the Category drop-down box
- Select Total Cost from the View By drop-down box.

The *Chart* selection dictates the content of the *Category* drop-down list, which in turn dictates the content of the *View by* drop-down list – see *Table 19 (below)*.

Table 19: Trends chart properties

Chart name	Available categories		Available display items	
Bundle usage	▪ Entirely in bundle ▪ Partially in bundle ▪ Qualified but expired	▪ Not in bundle ▪ All categories	▪ Number of calls ▪ Duration ▪ Events	▪ Data volume ▪ Original cost ▪ Cost
Call Period	▪ Weekend ▪ Day	▪ Evening ▪ All Categories	▪ Number of calls ▪ Duration ▪ Events	▪ Data volume ▪ Original cost ▪ Cost
Destinations	▪ International ▪ International Mobile ▪ National ▪ Non-geo ▪ Local	▪ Mobile ▪ Other ▪ Premium rate services ▪ All Categories	▪ Number of calls ▪ Duration ▪ Events	▪ Data volume ▪ Original cost ▪ Cost

[12] The contents of the *Category* filter drop-down list is determined by the selected *Chart*.
[13] Available for Custom Trends charts only.

Chart name	Available categories	Available display items
Peak/Off-peak	▪ Not applicable ▪ Weekday peak ▪ Weekday off peak ▪ Weekend peak ▪ All categories	▪ Number of calls ▪ Duration ▪ Events ▪ Data volume ▪ Original cost ▪ Cost
Roamed	▪ Not roamed ▪ Roamed ▪ Roamed received ▪ Roamed mobile ▪ Roamed SMS ▪ All categories	▪ Number of calls ▪ Duration ▪ Events ▪ Data volume ▪ Original cost ▪ Cost
Service summary	▪ Fixed ▪ All categories	▪ Number of calls ▪ Duration ▪ Events ▪ Data volume ▪ Original cost ▪ Cost
Transmission type	▪ Voice ▪ Data ▪ SMS ▪ GPRS ▪ Fax ▪ Email ▪ MMS ▪ All categories	▪ Number of calls ▪ Duration ▪ Events ▪ Data volume ▪ Original cost ▪ Cost
Voice vs SMS	– –	▪ Number of calls ▪ Events
VPN	▪ Unknown ▪ Off net ▪ On net ▪ Non-VPN ▪ All categories	▪ Number of calls ▪ Duration ▪ Events ▪ Data volume ▪ Original cost ▪ Cost

Select the chart type using the *Chart type menu* icons to the right of the chart.

13.2. Custom Trend Charts

13.2.1. Creating trend charts

If none of the predefined charts meets your needs you can create your own using the *My trend chart* wizard.

Figure 63: Edit my trend chart feature

Create a new chart

1. From the *Trends overview* page, **Create new chart**

   A7 displays the *Edit my trend chart* panel – *Figure 63 (above)*.

2. Complete the *My chart* form:

Parameter	Type	Usage
Chart name	Text box	Provides a descriptive identifying name for the chart.
Format	Drop-down	Determines how the data is presented, select one of: Line, Bar or Area.
Axis 1	Drop-down	Use *Axis 1* and *Axis 2* to compare one category against another. Select a chart type for Axis 1
Category	Drop-down	Select a category for the Axis 1 chart type
Display	Drop-down	Select a view for the Axis 1 chart type
Axis 2	Drop-down	Use *Axis 1* and *Axis 2* to compare one category against another.

3. **Save as a new trend chart** to save the custom chart

   A7 saves the chart and adds it to the *Trends Overview* page's *Charts* drop-down list; in the *My trend charts* sub-section.

   A7 displays a confirmation message.

4. **Return to trend overview** to return to the *Trends overview* page.

   A7 displays the *Trend overview* page, showing the new chart.

   If you create two new charts they will display in chart positions one and two respectively.

13.2.2. Maintaining trend charts

Delete a chart

1. From the *My trends chart* panel of the *Edit my trend chart* – *Figure 63 (on page 63)* – find the chart name in the list on the right hand side.
2. **Delete** icon to delete.

   A7 displays a confirmation message.

3. **Delete** to continue

   A7 deletes the chart.

4. **Return to trend overview** to return to the main Trends page.

Edit a chart

Don't forget the context

Remember My view – any selected charts will change dynamically to reflect your context whenever you:

- Select a different Billing-period,
- Drill into the Organisational Structure,
- Search for a specific Subscriber.

1. From the *Trends overview* page, select the chart from the *Charts* drop-down list.
2. **Edit** to continue

   A7 displays the *Edit my trend chart* – *Figure 61 (on page 52)*.

3. Make the required changes.
4. **Update existing chart** to save the changes

   [Alternatively] **Save as new chart**

   This action retains the old Trend chart, whilst also creating a new one using the values supplied – you just need to supply the name.

5. **Return to trend overview** to return to the main Trends page.

13.2.3. Adding Trends charts to favourites

Use the *Add to Favourites / Remove from Favourites* icon(s) –displayed on the *Trend Overview* – to update the *My favourites* feature.

Add to Favourites

Remove from Favourites

The icons are visible only when viewing a custom Trend chart.

14. Audit reports

Available only to Admin users and Top-level users with structure rights.

Audit Reports display a list of changes to both the structures and moved charges.

14.1. Structure Audit Log

Available only to Admin and Top-level users on Default, Billing- or User-defined structures

The *Structure audit log* displays a list of structure and user updates for all the structures to which the viewing user is assigned.

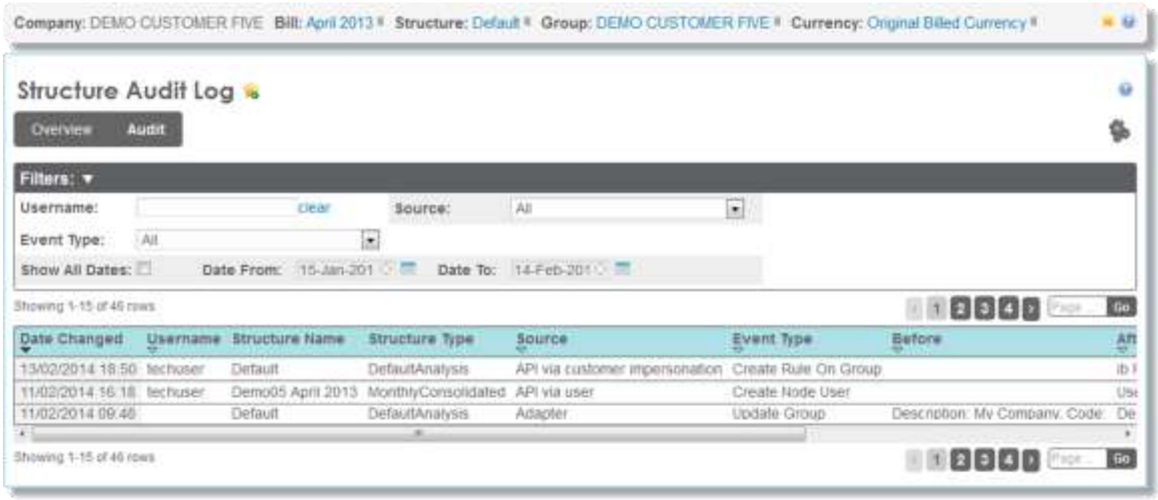


Figure 64: Structure audit log

The following *Report filters* are available:

- Username (results returned after 3 entries and a clear filter is available)
- Source (drop down list showing the sources available; by default all will be shown)
- Event Type (drop down list showing the sources available; by default all will be shown)
- Dates (by default the log shows data for the previous month, the calendar controls and/or the Show All Dates can be used to return a different period)

The following columns are displayed:

- Date changed
- Username
- Structure Name
- Structure Type
- Source
- Event Type
- Before
- After

The standard report functionality detailed in *Ch. 11 Understanding report components (on page 40)* is available.

14.2. Manage Charges Audit Log

Requires optional module – Split charges
Available only to *Top-level users* on the *Default structure*.
Report details older than 30 days {Default} are cleared down.

The *Moved charges audit log* displays a list of charges moved using the *Manage Charges* functionality.

Figure 65: Move charges audit log

The following filters are selectable:

- Username (results returned after 3 entries and a clear filter is be available)
- Dates (by default the log shows data for the previous month, the calendar controls and/or the Show All Dates can be used to return a different period)
- Charge Type (the ability to select ‘All’ or an individual charge)

The following columns are shown:

- Date Changed
- Username
- Charge Type
- Subscriber / Group level
  Only if an individual subscriber charge(s) has moved
- Previous Charge Location
- New Charge Location

Standard report functionality is available with the exception of Scheduled reports.

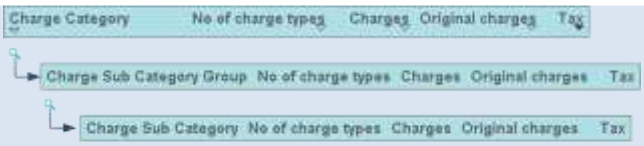
15. Report definitions

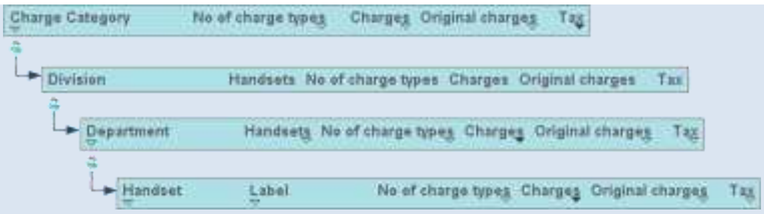
This section contains a report definition for each predefined report. It uses the default system-defined column-set as its basis. You can of course create your own report views to modify this – see: *Ch. 11.6 Report configuration (on page 50)*.

15.1. Costs reports

15.1.1. Charge-categorisation report definition

Figure 66: Charge-categorisation report

Report title	**Charge-categorisation**	
Description:	Displays charges by Charge-category. The top-level report displays a summary line per Charge-category showing: ▪ Charge-category ▪ Charges (Count) ▪ Charges (amount) ▪ Original charges (amount) ▪ Tax (amount).	
Constraints:	Available only to *Service-providers* using twelve Charge-categ*ories*:	
	▪ There must be at least one sub category per Charge-category; ▪ Sub categories are dynamic;	▪ A maximum of 12 Charge-categories can be defined.
Variations:	Unavailable report functionality:	
	▪ *One line per* filter; ▪ *Zero entries* filter	▪ *Report overview observations*.
Report basis	Charge detail records *Report detail level* columns are as described in *Table 17 (on page 49)*	
Sequence:	Charge-category – descending	
Select detail		

Report title	Charge-categorisation
Select group	

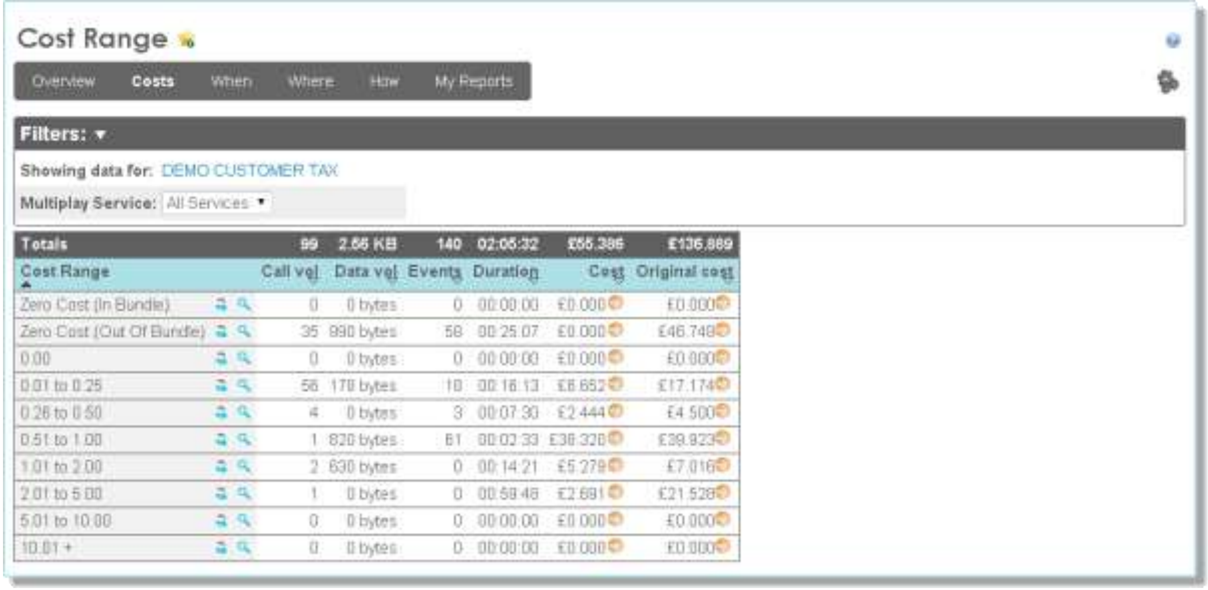
15.1.2. Cost allocation report definition

For Six-charge-category model deployments see *Appendix C.3 (on page VII)*.

Figure 67: Cost allocation report

Report title	Cost allocation
Description:	Displays billing costs at each level of the organisational structure. All twelve categories are available for display, but categories Charge 7 through Charge 12 are switched-off by default. Use the selectable columns feature to activate any or all of them.
Sequence:	Cost – descending
Constraints:	Does not break down the total cost by Charge-category at each *organisational level*. The report lines will wrap-around when exporting All columns in MS Word, PDF or PowerPoint format, so we recommend users either limit the number of columns being reported or exporting All columns in CSV format.
Variations:	Unavailable report functionality: *Cost adjustment arrows*.
Report basis	Charge detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*
Select group	Drills down through the organisational structure hierarchy.

15.1.3. Cost range report definition



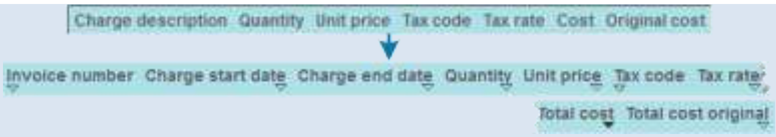
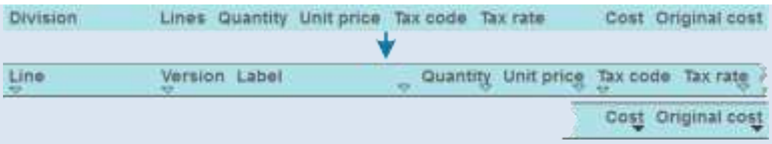
Totals	99	2.66 KB	140	02:05:32	£55.386	£136.889
Cost Range	Call vol	Data vol	Events	Duration	Cost	Original cost
Zero Cost (In Bundle)	0	0 bytes	0	00:00:00	£0.000	£0.000
Zero Cost (Out Of Bundle)	35	890 bytes	58	00:25:07	£0.000	£46.748
0.00	0	0 bytes	0	00:00:00	£0.000	£0.000
0.01 to 0.25	56	170 bytes	10	00:16:13	£6.652	£17.174
0.26 to 0.50	4	0 bytes	3	00:07:30	£2.444	£4.500
0.51 to 1.00	1	820 bytes	61	00:02:33	£38.320	£39.923
1.01 to 2.00	2	630 bytes	0	00:14:21	£5.279	£7.016
2.01 to 5.00	1	0 bytes	0	00:58:48	£2.691	£21.528
5.01 to 10.00	0	0 bytes	0	00:00:00	£0.000	£0.000
10.01 +	0	0 bytes	0	00:00:00	£0.000	£0.000

Figure 68: Cost range report

Report title	Cost range
Description:	Highlights areas of high or low spend; it displays the volume, duration and cost in pre-defined cost ranges {Configurable}.
Sequence:	Cost range -ascending.
Constraints:	Available only in single-currency deployments. A maximum of twelve ranges can be defined. [Optionally] Two of the ranges can be designated to display: ▪ All bundled usage records (that is, zero cost). ▪ All unbundled zero cost usage.
Variations:	None
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down directly to *Report detail level* .
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.1.4. Invoice backup definition

Report title	invoice backup	
Description:	Displays invoice charges by charge description	
Sequence:	Cost - descending	
Constraints:	Available only if the service-provider can supply summarised charges in the data. ▪ Available only to Top-level users on the *Billing-defined or Default structure*.	
Variations:	Unavailable report functionality:	
	▪ *Report filters* (all) – at top-level; ▪ *Multiplay service* filter – at any level; ▪ Charts;	▪ *Cost adjustment arrows*; ▪ *Report overview Observations*.

Report title	**invoice backup**
Report basis	Charge detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	
Select group	

15.1.5. Invoice details report definition

For Six-charge-category model deployments see *Appendix C.3 (on page VII)*.

Figure 69: Invoice details report

Table 20: Invoice detail report definition

Report title	**invoice details**
Description:	Displays a summary *line per* loaded invoice All twelve categories are available for display, but categories Charge 7 through Charge 12 are switched-off by default. Use the selectable columns feature to activate any or all of them.
Sequence:	Invoice number – ascending.
Constraints	▪ Available only to Top-level users on the *Billing-defined* or *Default structures.* ▪ Cannot be deployed alongside the *Invoice Statement* report; these are mutually exclusive reports. ▪ The *Charge Original* columns are not available.
Variations:	Not linked to organisational structure. Unavailable report functionality: ▪ *Multiplay service* filter; ▪ *Select group*; ▪ *Cost adjustment arrows*; ▪ Charts; ▪ *Report overview Observations*; ▪ Report totals.
Report basis	*Charge* detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to invoice details 
Select group	Drill-down unavailable

15.1.6. Invoice statement report definition

Figure 70: Invoice statement report

Table 21: Invoice statement report definition

Report title	**Invoice statement**
Description:	At the top-level the report displays a one-line per invoice summary, which can be expanded to show the *Tax break down* – as show in Figure 70 *(above)*. The following columns are available at the top-level: ▪ Invoice Number ▪ Invoice Total (Ex tax) ▪ Total Tax ▪ Invoice Total (incl. Tax) ▪ Previous Balance ▪ Payment Received ▪ Balance Outstanding The taxes shown are applicable to that invoice only; all taxes included in the invoice are displayed even those of zero value Expand the tax data using the expander icons [▸ ▾], the columns available comprise: ▪ Invoice Number ▪ Tax Code ▪ Tax Description ▪ Tax Rate ▪ Tax Amount
Constraints:	▪ Available only to Top-level users. ▪ Cannot be deployed alongside the *Invoice Detail* report; these are mutually exclusive reports. ▪ Cannot be deployed by customers using Tax as a Charge-category ▪ Tax expander icons are displayed even where service-providers do not have multiple taxes or where tax is only at invoice level. ▪ The selectable columns feature does not extend to columns in the *Tax break down* view.
Variations:	▪ If this report is deployed, then the *Headline summary* will point to this report not the *Invoice Detail report*. ▪ *Payment* and *Balance* are optional fields populated only if the service-provider can send that information. ▪ Both the Download and Email options will prompt you to select between downloading without a tax break down or downloading a tax break down only. **Unavailable report functionality:** ▪ *One line per* filter; ▪ *Zero entries* filter ▪ *Report overview observations*.
Report basis	Charge detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Sequence:	Invoice number – ascending

Report title	Invoice statement
Select detail	For the selected invoice, this drill-down displays a one-line per Charge-category summary showing total tax and the charge amount. The *Select detail* icon in this column-set launches the *Report results summary* panel to access *Report detail level*.
Select group	This drill-down shows the charges for each subscriber.  By default charges 1 thru 6 are shown; use **Report option menu»Configuration** to select additional or different charges. ▪ User the expander icons in the Total tax column to show the *Tax break down* for the selected subscriber. The columns show include: Tax Code, Tax Description, Tax Rate, Tax Amount ▪ The *Select detail* icon in this column-set launches the *Report results summary* panel to access *Report detail level*.

15.1.7. Monthly charge analysis report definition

For Six-charge-category model deployments see *C.3 Deprecated Reports (on page VII).*

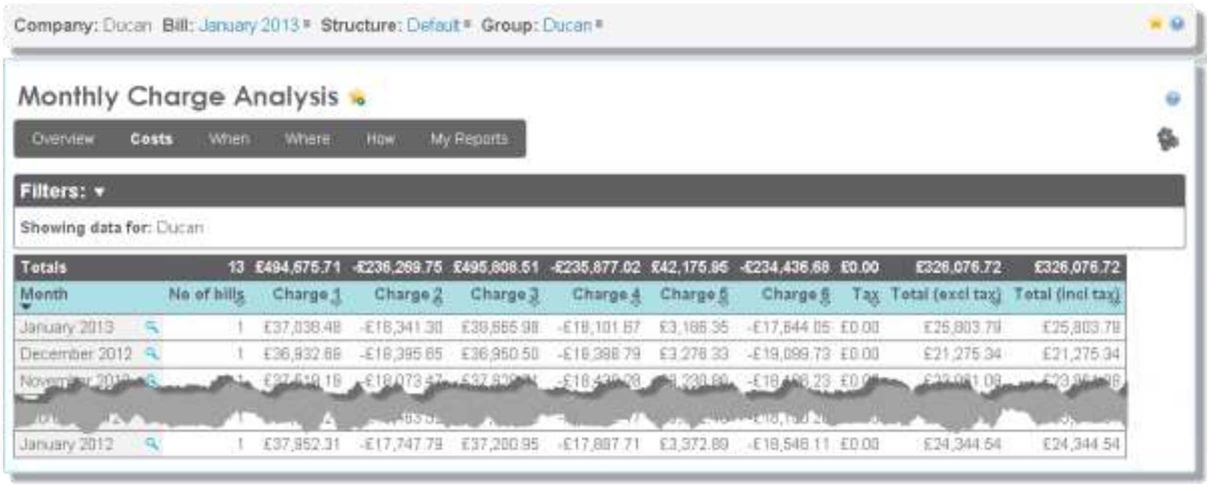
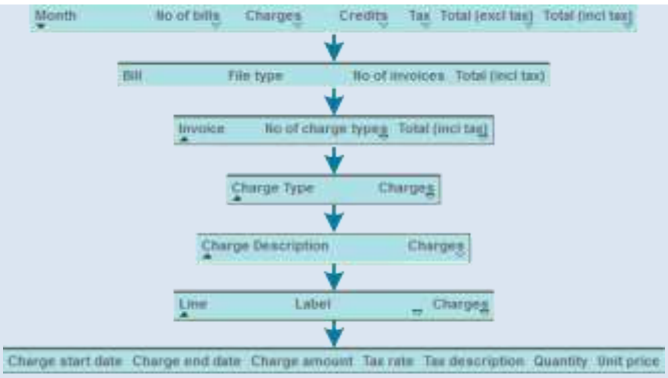


Figure 71: Monthly charge analysis report

Report title	Monthly charge analysis
Description:	Summarises charges for each month's loaded data (up to 13 months), with *Select detail* drill-down, to associated bills, invoices and charges. Report totals consolidate *all bills* received in a month regardless of the *Billing-period* selected in the *Current analysis context*. All twelve categories are available for display, but categories Charge 7 through Charge 12 are switched-off by default. Use the selectable columns feature to activate any or all of them.
Sequence:	Month - descending.
Constraints	Available only to Top-level users on the Default structure. ▪ Unavailable in *User-defined*, *billing-defined* and Historical contexts. The report lines will wrap-around when exporting All columns in MS Word, PDF or PowerPoint format, so we recommend users either limit the number of columns being reported or exporting All columns in CSV format.
Variations:	Not linked to organisational structure. ▪ All twelve *Charge Original* columns are available, but are switched-off by default. Unavailable report functionality includes:

Report title	Monthly charge analysis	
	▪ *Multiplay service* filter; ▪ *Select group* drill-down; ▪ *Cost adjustment arrows*;	▪ *Report charts*; ▪ *Report overview Observations*; ▪ Report totals.
Select detail		
Select group	Drill-down unavailable	

15.1.8. Most expensive report definition

Figure 72: Most expensive report

Report title	Most expensive
Description:	Highlights high cost usage records (within the current context)
Sequence:	Cost - descending.
Constraints:	Available only to ▪ Top-level users on the *billing-defined structure*; ▪ *Top-level users on the Default structure*; ▪ *Subscriber user*; Includes: ▪ Previous three *Billing-period*; {Configurable: ▪ Top 50 records; {Configurable: Excludes Zero-charge usage.
Variations:	The *Personal description filter* is displayed for *subscriber users*. Unavailable report functionality:

Report title	Most expensive	
	▪ Filters (all)); ▪ *Select group* drill-down; ▪ *Select detail* drill-down;	▪ *Cost adjustment arrows*; ▪ *Report overview Observations*; ▪ Report totals.
Select detail	Drill-down unavailable.	
Select group	Drill-down unavailable.	

15.1.9. Subscriber summary report definition

For Six-charge-category model deployments see *Appendix C.3 (on page VII)*.

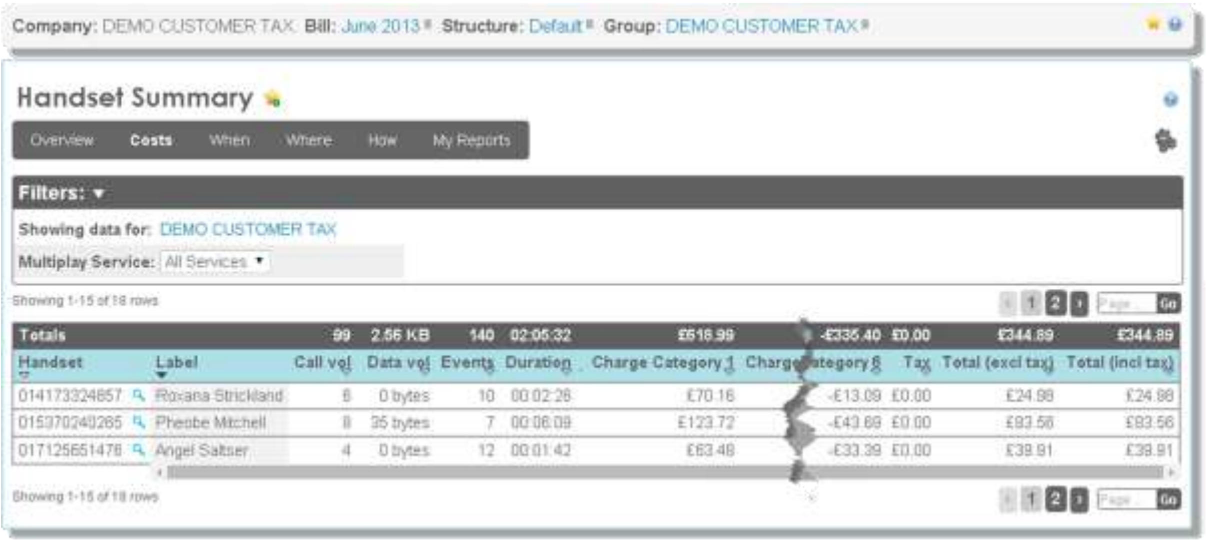


Figure 73: Subscriber summary report

Report title	Subscriber summary	
Description:	Summary of invoice related charges against each subscriber. All twelve categories are available for display, but categories Charge 7 through Charge 12 are switched-off by default. Use the selectable columns feature to activate any or all of them.	
Sequence:	Charge total - descending.	
Constraints:	Not available to *subscriber users* The report lines will wrap-around when exporting All columns in MS Word, PDF or PowerPoint format, so we recommend users either limit the number of columns being reported or exporting All columns in CSV format.	
Variations:	Billing entities can be displayed Configurable:{**OFF**; On}. Unavailable report functionality: ▪ *Cost adjustment arrows*; ▪ Charts;	▪ *One line per* filter - at top-level; ▪ *Zero entries* filter - at top-level.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*	
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*	
Select group	Drills down unavailable	

15.1.10. Tax exempt report definition

For Six-charge-category model deployments see *Appendix C.3 (on page VII).).*

Figure 74: Tax exempt report

Report title	**Tax exempt**
Description:	Displays calls with no associated tax (for example, VAT) charge
Sequence:	Cost – descending
Constraints:	Available only if the service-provider can provide a Tax flag at CDR level.
Variations:	Includes VAT exempt or zero rated us*age* records (for example roaming calls outside of European Union). Unavailable report functionality: ▪ Charts; ▪ *Cost adjustment arrows*; ▪ *Report overview Observations*.
Report basis	Charge detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down directly to *Report detail level* .
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.1.11. Usage report definition

Figure 75: Usage report

Report title	**Usage**
Description:	Displays *usage* against organisational structure
Sequence:	Cost - descending
Constraints:	None specified.
Variations:	Unavailable report functionality: ▪ *Multiplay service* filter; ▪ Charts; ▪ *Report overview Observations*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down directly to *Report detail level* .
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.2. When reports

15.2.1. Billing period report definition

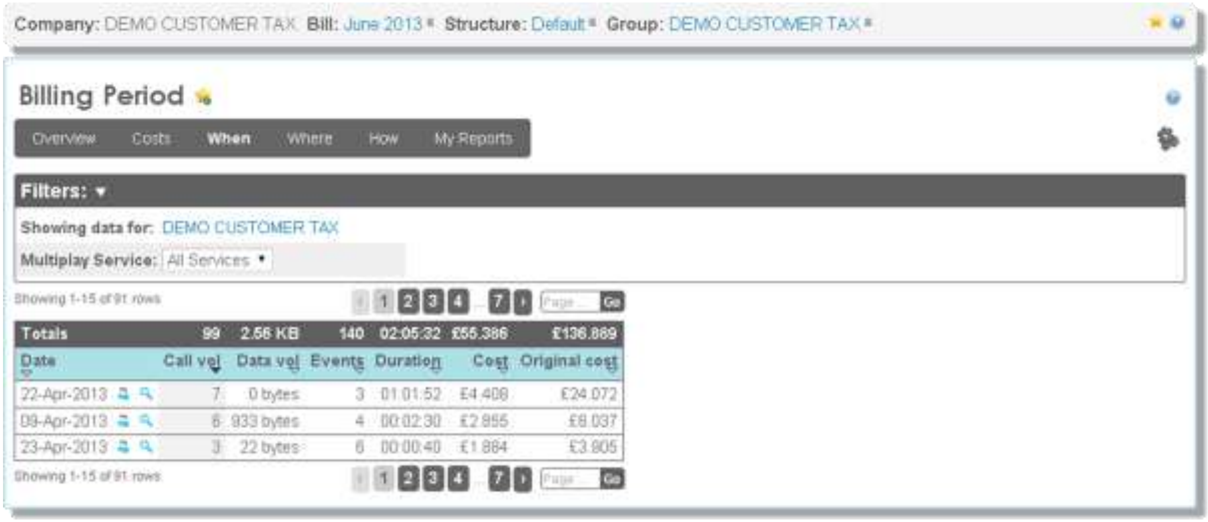
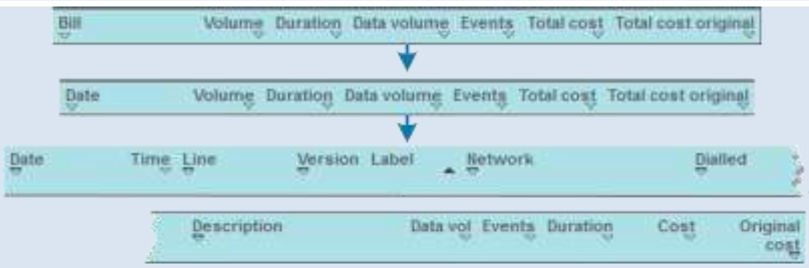


Figure 76: Billing-period report

Report title	**Billing period**
Description:	Displays usage summary for each loaded bill. The report displays usage each day within the *Current analysis context's Billing-period*, revealing usage patterns and the subscribers involved.
Sequence:	Date – ascending.
Constraints:	Available only to *Top-level users on the Default structure*; ▪ Not organisational structure aware; ▪ Displays all usage irrespective of the: ▪ Bill selected – even where multiple bills contain usage for the same day; *Current analysis context*'s *Billing-period* – so may include more than one month's data.
Variations	Unavailable report functionality: ▪ *One line per* filter (at top level); ▪ *Zero entries* filter (at top level); *Cost adjustment arrows*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	**Drills down directly to *Report detail level* .**
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.2.2. Billing period history report definition

Figure 77: BIlling-period history report

Report title	Billing period history
Description:	Displays usage within *Billing-period* for loaded bills up to and including the *Billing-period* set by the *Current analysis context*. The report initially displays a *Billing-period*-level summary, allowing the user to drill-down to a see usage on a selected date.
Sequence:	*Billing-period* – descending
Constraints:	Available only to *Top-level users on the Default structure*; ▪ Not organisational structure aware. ▪ Displays all usage irrespective of the bill selected – even where multiple bills contain usage for the same day
Variations	Unavailable report functionality: ▪ *One line per* filter (at top level); ▪ *Zero entries* filter (at top level); ▪ *Graph or chart*. ▪ *Cost adjustment arrows*; ▪ *Report overview Observations*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	
Select group	Drill down unavailable

15.2.3. Daily distribution report definition

Figure 78: Daily distribution report

Report title	**Daily distribution**
Description:	Displays usage per hour over a 24 hour cycle. This report is ideal for identifying busy/quiet spots within a day, with individual hours viewable via the *Select detail* drill-down.
Sequence:	*Time of day* – ascending
Constraints:	None identified
Variations:	[Optionally] Usage records without a default *timestamp* of midnight can be excluded; in which case the message "`The report may not contain all usage records`" is displayed. Excluded records have a charge base of 'data volume'. Unavailable report functionality: ▪ *One line per* filter (at top level); ▪ *Zero entries* filter (at top level); ▪ *Cost adjustment arrows*; ▪ *Report overview Observations*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*
Select group	Drills down through the organisational structure hierarchy.

15.2.4. Duration range report definition

Figure 79: Duration range report

Report title	
Description:	Displays usage by *Duration range*. Categories are also displayed for: ▪ *Usage* not charged by duration; ▪ *Usage* allocated an automatic zero duration. The *Duration ranges* are defined at system set-up. {Configurable:
Sequence:	*Duration range* – ascending
Constraints:	None specified
Variations:	Unavailable report functionality: ▪ *One line per* filter (at top level); ▪ *Zero entries* filter (at top level); ▪ *Graph or chart*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*
Select group	Drills down through the organisational structure hierarchy.

15.2.5. Longest report definition

Report title	Longest report
Description:	Displays the 50 longest duration us*age* records.
Sequence:	*Duration* – descending.
Constraints:	Available only to Top-level users on the *Default or Billing-defined structures and to subscriber users;* Includes: ▪ Previous three *Billing-period*; {Configurable}; ▪ Top 50 records; {Configurable}; ▪ Excludes zero duration usage.
Variations:	The *Personal description filter* is displayed for *subscriber users*. Unavailable report functionality

Report title	Longest report
	▪ *Report filters* (all); ▪ *Select group* drill-down; ▪ *Select detail* drill-down; ▪ *Cost adjustment arrows*; ▪ *Report overview Observations*; ▪ Report totals.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drill down unavailable
Select group	Drill down unavailable

15.2.6. Monthly trend analysis report definition

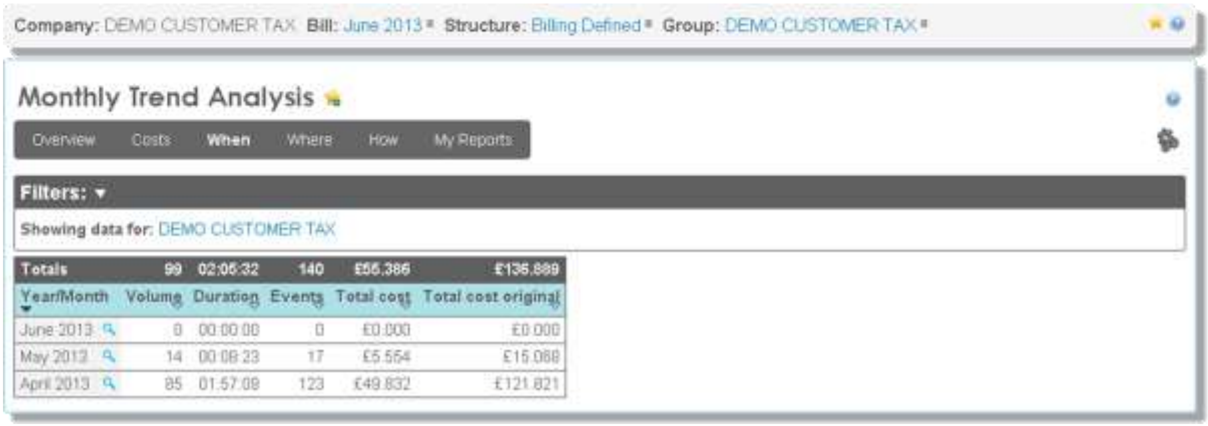


Figure 80: Monthly trend analysis report

Report title	Monthly trend analysis
Description:	Displays monthly trend information based on the *CDR* rather than the invoice items. Analysis is by *CDR* date, not invoice *Billing-period*. The report is for the whole of the selected organisational structure irrespective of the *Current analysis context*.
Sequence:	: Year/Month – descending.
Constraints:	Available only to *Top-level users* on *Default, Billing-defined* or *User-defined structures*. Not organisational structure aware.
Variations:	Unavailable report functionality: ▪ *Multiplay service* filter; ▪ *One line per* filter; ▪ *Zero entries* filter; ▪ *Select group* drop-down list; ▪ *Cost adjustment arrows*; ▪ *Report overview Observations*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	
Select group	drill-down unavailable

15.2.7. Peak/Off peak report definition

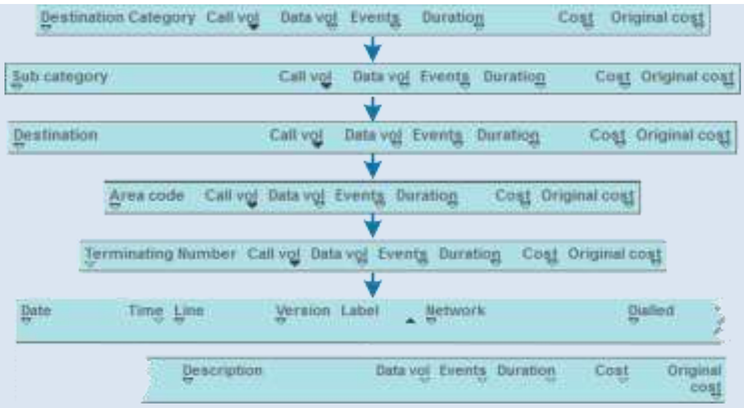
Figure 81: Peak/Off-peak report

Report title	**Peak/Off peak**
Description:	Displays usage grouped into charge bands (for example, peak, weekend peak, or off-peak) The charge banding can either flagged in the data or be determined from the *CDR* time stamp {Configurable}.
Sequence:	*Call volume* – descending
Constraints:	None specified
Variations:	{Configurable} The report can be configured to group *usage* by *time period* if *Peak/Off Peak categorisation* is not used by the service-provider. Unavailable report functionality: ▪ *One line per* filter (at top level); ▪ *Zero entries* filter (at top level).
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.3. Where reports

15.3.1. Destinations report definition

Report title	**Destinations report**
Description:	Displays *Call* destinations grouped by *Destination category* *Destination categories* may include, for example, Landline, On Net, Roaming, Other Mobile Networks, Text Messages, Answer phone, International and Premium Rate.
Sequence:	usage category – ascending
Constraints:	▪ A maximum of 15 *Destination categories* may be defined; ▪ *Subscriber users* see only *Destination category* and usage *sub-category* drill-down levels.
Variations:	Unavailable report functionality: ▪ *One line per* filter at top-level; ▪ *Zero entries* filter at top-level.

Report title	Destinations report
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.3.2. Frequently dialled

Figure 82: Frequently dialled report

Report title	Frequently dialled
Description:	Displays the most popular dialled numbers, with a drill-down-that reveals who has been dialling those numbers. {Configurable} The report can display the dialled location in addition to the number
Sequence:	Call volume - descending.
Constraints:	Available only to *Top-level users on* the *Default structure*. The graph relates to each specific page of results.
Variations:	Unavailable report functionality: ▪ *Multiplay service* filter; ▪ *Select group drill-down*; ▪ *Cost adjustment arrows;* ▪ *Report overview Observations*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*

Report title	**Frequently dialled**
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.3.3. Internal

Figure 83: Internal usage report

Report title	**Internal**
Description:	Displays data based on usage between subscribers within the same organisation, so that internal organisational usage may be analysed.
Sequence:	Call volume - descending
Constraints:	The report is available only if the *service-provider* data feed can flag internal usage against each *usage* record {Configurable}: .
Variations:	**Unavailable report functionality:** ▪ *Multiplay service* filter; ▪ *Cost adjustment arrows*; ▪ Charts.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.3.4. Usage by direction

Figure 84: Usage by direction report

Report title	Usage by direction
Description:	Displays a summary of the Incoming and Outgoing usage for billed items.
Sequence:	*Call volume* – descending
Constraints:	None specified
Variations:	*Report overview observations* unavailable.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.4. How reports

15.4.1. Bundle usage

Figure 85: Bundle usage report

Report title	Bundle usage
Description:	Displays usage by *Bundle usage*. View *Bundle usage* to determine whether the Account's *bundle package* is an appropriate type and level. The *bundle category Partially in bundle* is used when only part of the usage is included in the *bundle*. The remaining usage is costed once the *bundle* allowance has expired.
Sequence:	*Call volume* – descending.
Constraints:	Up to four *Bundle categories* can be defined. {Configurable}
Variations:	*Report overview observations* unavailable. ▪ *One line per* filter (at top level); ▪ *Zero entries* filter (at top level); ▪ *Report overview Observations*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.4.2. Multiplay service

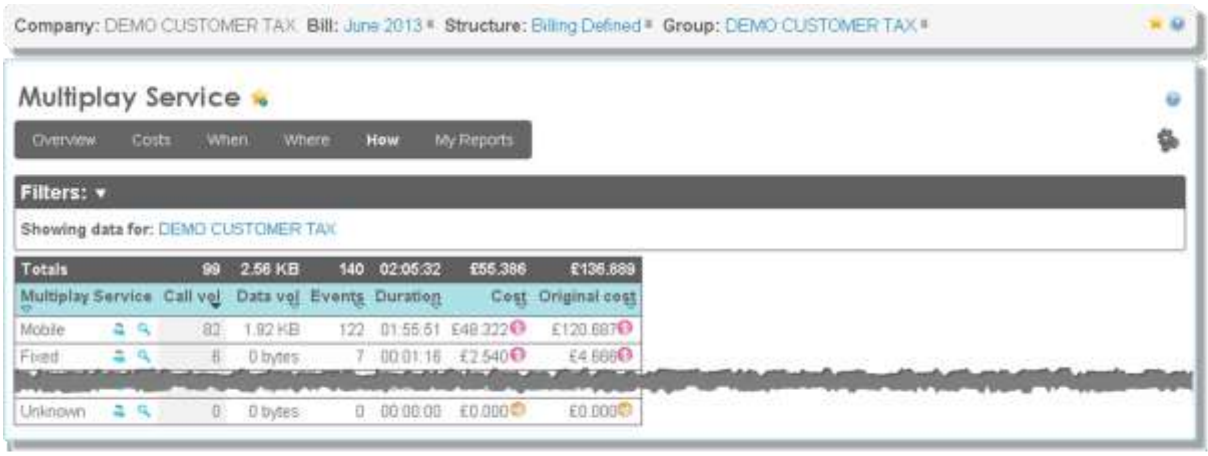


Figure 86: Multiplay service report

Report title	Multiplay service
Description:	Displays usage by *Multiplay service type*. Identifies the cost of each service.
Sequence:	*Call volume* – descending.
Constraints:	The report excludes charges. Up to ten multiplay types may be defined.
Variations:	Unavailable report functionality: ▪ *Multiplay service* filter; ▪ *One line per* filter (at top level); ▪ *Zero entries* filter (at top level); ▪ *Report overview Observations*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*

Report title	Multiplay service
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.4.3. Roamed status report

Figure 87: Roamed status report

Report title	Roamed status report
Description:	Displays usage by *Roamed status*. View usage by *Roamed status* to identify roaming costs and anomalies.
Sequence:	*Call volume* – descending.
Constraints:	Up to five *Roamed status* categories can be defined. {Configurable:
Variations:	Unavailable report functionality: ▪ *One line per* filter (at top level); ▪ *Zero entries* filter (at top level); ▪ *Report overview Observations*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.4.4. Transmission type

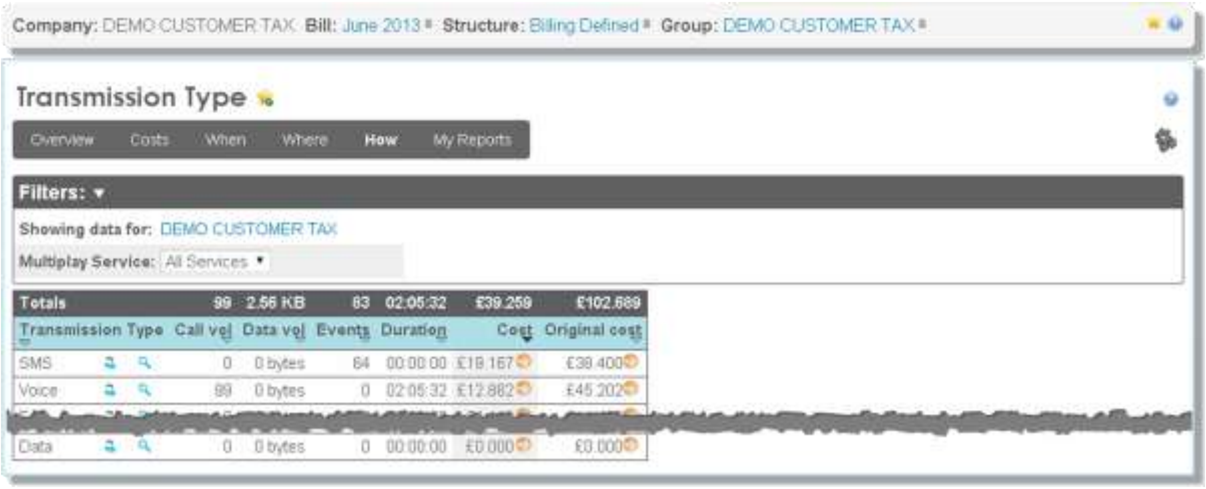


Figure 88: Transmission type report

Report title	Transmission type
Description:	Displays usage by *Transmission type*. Viewing usage by *Transmission type* reveals how subscribers are being used.
Sequence:	*Call volume* – descending
Constraints:	{Configurable} A maximum of ten *Transmission type* categories can be defined (for example, Data, Voice, SMS, GPRS).
Variations:	Unavailable report functionality: ▪ *One line per* filter (at top level); ▪ *Zero entries* filter (at top level).
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

15.4.5. VPN report definition

Figure 89: VPN report

Report title	VPN
Description:	Displays VPN usage by *VPN Status*. {configurable} The default *VPN Status* categories include: ▪ On-Net – zero cost VPN usage (within the company); ▪ Off-Net – external VPN usage (with a cost); ▪ NON-VPN – non-VPN usage (with or without cost).
Sequence:	*Call volume* – descending.
Constraints:	Up to five *VPN Status* categories can be defined.
Variations:	Unavailable report functionality: ▪ *One line per* filter (at top level); ▪ *Zero entries* filter (at top level); ▪ *Report overview Observations*.
Report basis	Usage detail records *Report detail level* columns are as described in *Table 17 (on page 49)*
Select detail	Drills down to Report detail level – see *Table 17 (on page 49)*
Select group	Drills down through the organisational structure hierarchy and then via *Select detail* to Report detail level for the selected subscriber..

Part five:

Usage tagging features

Chapters in Part five:

A7 comprises a standard set of Usage tagging features – described in Ch. 16 (92) – which may be augmented by the addition of the optional Advanced usage tagging module – described in Ch. 17 (on page 99).

16. Standard usage tagging

This chapter deals only with the management aspects of usage tagging

Related information

The tagging of usage is available only to subscriber-users and is described in the A7 Subscriber User Guide;

The *Usage Tagging* feature set comprises two distinct areas, designed to meet very different objectives. This chapter describes the administrative functions that enable the monitoring and control of the *Usage tagging* process, and not the tagging process itself.

16.1. Usage tagging overview

The *Usage tagging overview* feature enables the management and administration of usage tagging in three functional areas:

- Tagging reports

  View usage tagging reports based on business and personal splits;

- Action reports

  Lock and unlock subscriber submissions and send email reminders to users who have not completed their submissions;

- *My reports*

  Create bespoke reports based on usage information.

Navigating usage tagging reports …

Usage tagging provides navigation functionality such as

- Sorting,
- Filtering,
- Drilling-down,
- Saving,
- Printing and
- Downloading

All work in the same was as they do for standard Reports – which is described in Ch. IV11 Understanding report components (page 40).

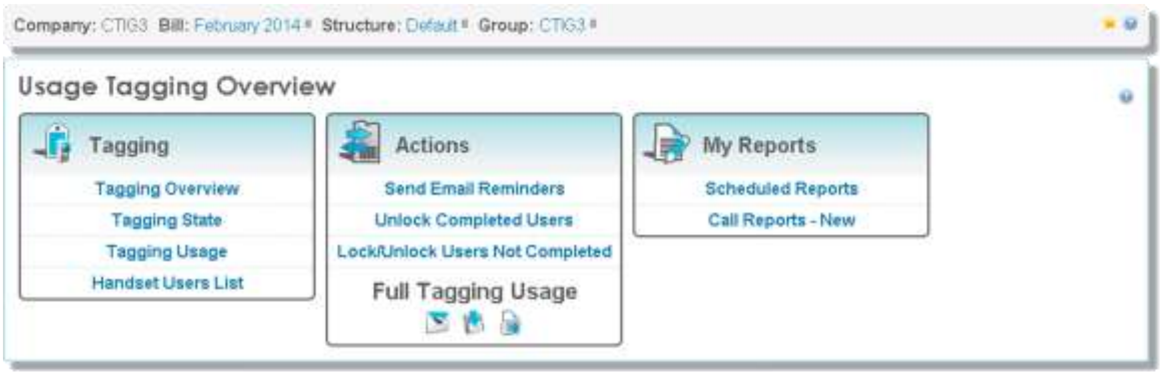


Figure 90: Usage tagging overview page

16.2. Tagging reports

The *Tagging* reports are provided to aid in the administration on usage tagging.

Report	Description
Tagging Overview	The *Tagging overview* report shows a break down of business and personal usage for each element of the *Organisational structure*.
Tagging State	The *Tagging state* report shows a break down of usage by tagged status – see *Table 24 (page 96)*.
Tagging Usage	The *Tagging usage* report summarises usage by its tagged status (that is, either personal or business).

Report	Description
Subscriber user list	The *Subscribers user list* report shows *subscribers* in the selected group, optionally filtered by *User assignment* {`All; No user assigned; User assigned`}.

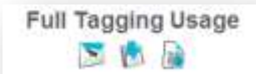
16.3. Action reports

Sending Email Reminders	The *Sending email reminders* report lists all users who have not submitted their call tagging declaration, and enables the sending of an email reminder.
Unlocking Completed Users	The *Unlocking Completed Users* report lists users who have submitted their tagging statements and enables the unlocking of those user's submissions.
Locking or Unlocking Users Not Completed	The *Locking or Unlocking Users Not Completed* report list users who have not submitted their call tagging declaration and enables the locking (and subsequent unlocking) of the tagging declarations.

16.4. Full Tagging Usage

This report is *Organisational structure* aware.

The *Full tagging usage* features download [14], email and print a subscriber level break down of personal and business spend.



16.5. My Reports

The *Usage Tagging* feature set includes *My Reports,* which is an extension of the same functionality delivered by the Reports features, with the addition of being able to filter on personal and business and tagged statuses.

Usage tagging reports are based on the *Usage detail records*, and no *Charge Reports* functionality is available.

16.6. Usage tagging report definitions

For Administrator and Group-level users only

[14] In CSV or Excel format.

16.6.1. Tagging overview report definition

The *Tagging overview* report shows a break down of business and personal usage for each element of the organisational structure.

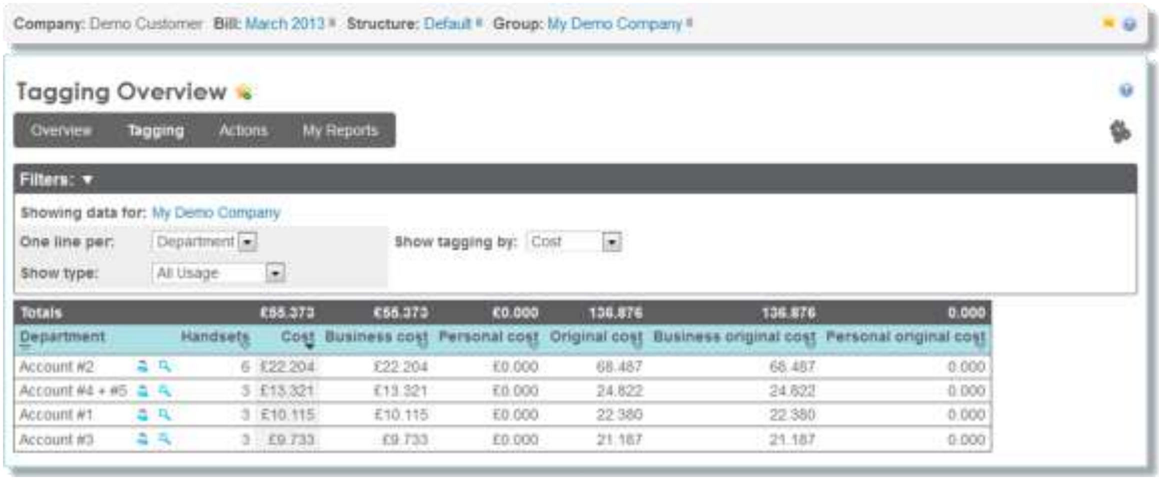


Figure 91: Tagging overview report sample

Table 22: Tagging overview report attributes

Report attributes		
Description:	The *Tagging overview* report shows a break down of business and personal usage for each element of the organisational structure.	
Constraints:	None identified.	
Variations:	None identified.	
Report basis:	*Usage detail records*	
Sequence:	*N/A*	
Filters:	*Showing data for*	`[selected level]`
	One line per	Select an *Organisational level* at or below the current drill-down level.
	Show tagging by	`{`**`Cost`**`, Duration, Call volume, Data volume or Events volume}`.
	Show type	`{`**`All`**` usage, Business or Personal}`.
Functionality:		Drill-down to display the *Report results summary* page.
		Drill-down through the *Organisational structure* levels and display the *Usage detail records* for the selected level.

Report attributes				
Viewable columns – mandatory columns in **bold**, deselected columns in (brackets).				
Report summary level	Group level	▪ **Tier name** ▪ *Subscribers* ▪ *Cost* ▪ *Business cost* ▪ *Personal cost* ▪ *Original cost* ▪ *Business original cost*	▪ *Personal original cost* ▪ *(Call vol)* ▪ *(Business vol)* ▪ *(Personal vol)* ▪ *(Data vol)* ▪ *(Business data vol)* ▪ *(Personal data vol)*	▪ *(Events)* ▪ *(Business events)* ▪ *(Personal events)* ▪ *(Duration)* ▪ *(Business duration)* ▪ *(Personal duration)*
	Subscr. Level	▪ **Subscriber** ▪ (Version) ▪ Label ▪ *Cost* ▪ *Business cost* ▪ *Personal cost* ▪ *Original cost*	▪ *Business original cost* *Personal original cost* ▪ *(Call vol)* ▪ *(Business vol)* ▪ *(Personal vol)* ▪ *(Data vol)* ▪ *(Business data vol)*	▪ *(Personal data vol)* *(Events)* ▪ *(Business events)* ▪ *(Personal events)* ▪ *(Duration)* ▪ *(Business duration)* ▪ *(Personal duration)*
Report detail level		▪ Date ▪ Time ▪ Subscriber ▪ (Version) ▪ Label	▪ Network ▪ Dialled ▪ Description ▪ Data vol	▪ Events ▪ Duration ▪ Cost ▪ Original cost

16.6.2. Tagging state

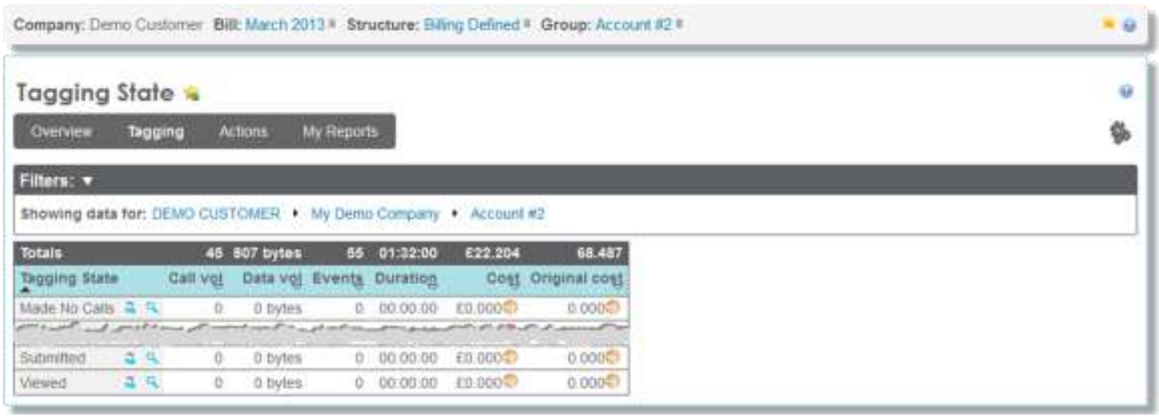


Figure 92: Tagging state panel sample

Table 23: Tagging state report attributes

Report attributes		
Description:	The *Tagging overview* report shows a break down of business and personal usage for each element of the organisational structure.	
Constraints:	None identified.	
Variations:	None identified.	
Report basis:	*Usage detail records*	
Sequence:	*N/A*	
Filters:	*Showing data for*	`[selected level]`
	One line per	Select an *Organisational level* at or below the current drill-down level.

Report attributes				
	Show tagging by	`{`**`Cost`**`, Duration, Call volume, Data volume or Events volume}`.		
	Show type	`{`**`All`**` usage, Business or Personal}`.		
Functionality:		Drill-down to display the *Report results summary* page.		
		Drill-down through the *Organisational structure* levels and display the *Usage detail records* for the selected level.		
Viewable columns – mandatory columns in **bold**, deselected columns in (brackets).				
Report summary level	Top level	▪ **Tagging State** ▪ Call vol ▪ Data vol	▪ Events ▪ Duration	▪ Cost ▪ Original cost
	Group level	▪ **Tier name** ▪ *Subscribers* ▪ *Call vol*	▪ *Data vol* ▪ *Events* ▪ *Duration*	▪ *Cost* ▪ *Original cost*
	Subscr . Level	▪ **Subscriber** ▪ (Version) ▪ Label	▪ Call vol ▪ Data vol ▪ Events	▪ DurationCost ▪ Original cost
Report detail level		▪ Date ▪ Time ▪ Subscriber ▪ (Version) ▪ Label	▪ Network ▪ Dialled ▪ Description ▪ Data vol	▪ Events ▪ Duration ▪ Cost ▪ Original cost

Table 24: Available tagging states

Tagged status	Tagged status description
Made No Calls	Subscriber users who have made no calls for the selected period
No User Assigned	This include the *subscribers* that do not currently have a user assigned to them.
Not Viewed	Subscriber users that have not logged on and viewed this month's statement
Submitted	Subscriber users who have submitted their statement (once the subscriber user submits their statement the bill is locked)
Viewed	Subscriber users logged on and viewed this month's statement but not submitted

16.6.3. Tagging usage report definition

The *Tagging usage* report summarises usage by its tagged status (that is, either personal or business).

Figure 93: Tagging usage report sample

Table 25: Tagging usage report attributes

Report attributes			
Description:	The *Tagging usage* report summarises usage by its tagged status (that is, either personal or business).		
Constraints:	None identified.		
Variations:	None identified.		
Report basis:	*Usage detail records*		
Sequence:	*N/A*		
Filters:	*Showing data for*	`[selected level]`	
	One line per	Select an *Organisational level* at or below the current drill-down level.	
	Show type	`{All usage, Business or Personal}`.	
Functionality:		Drill-down to display the *Report results summary* page.	
		Drill-down through the *Organisational structure* levels and display the *Usage detail records* for the selected level.	
Viewable columns – mandatory columns in **bold**, deselected columns in (brackets).			
Report summary level – Top level	▪ **Tagging Status** ▪ *Call vol* ▪ *Data vol*	▪ *Events* ▪ *Duration*	▪ *Cost* ▪ *Original cost*
Report summary level – Group level	▪ **Tier name** ▪ *Subscribers* ▪ *Call vol*	▪ *Data vol* ▪ *Events* ▪ *Duration*	▪ *Cost* ▪ *Original cost*
Report summary level – Subscr. Level	▪ **Subscriber** ▪ *(Version)* ▪ *Label*	▪ *Call vol* ▪ *Data vol* ▪ *Events*	▪ *DurationCost* ▪ *Original cost*
Report detail level	▪ *Date* ▪ *Time* ▪ *Subscriber* ▪ *(Version)* ▪ *Label*	▪ *Network* ▪ *Dialled* ▪ *Description* ▪ *Data vol*	▪ *Events* ▪ *Duration* ▪ *Cost* ▪ *Original cost*

16.6.4. Subscriber users list report definition

The *Subscriber users list* report lists all users assigned to the *Current analysis context.*

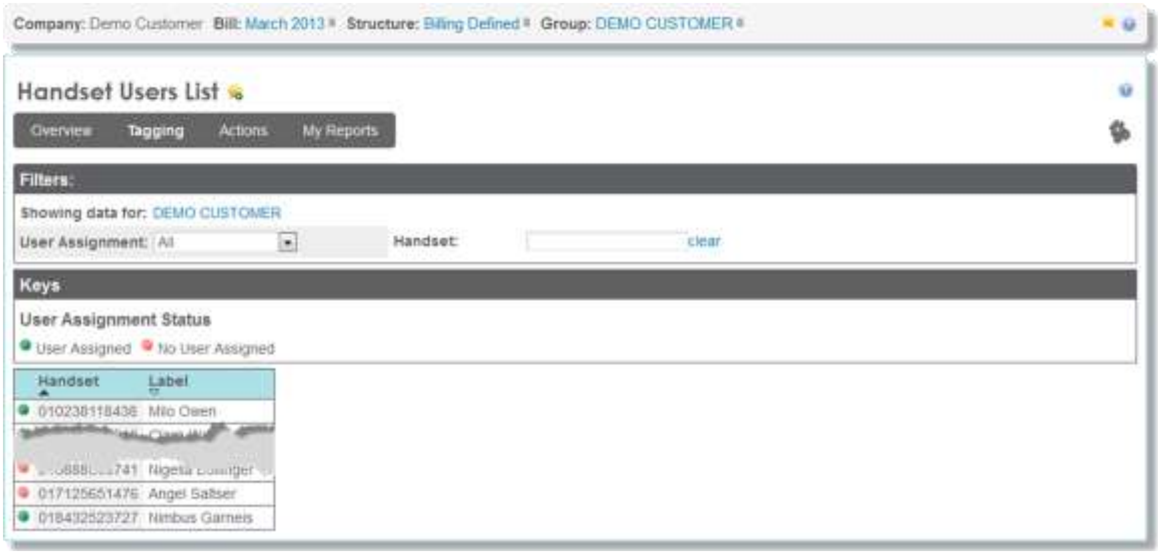


Figure 94: Subscriber users list report sample

Table 26: Subscriber users list report attributes

Report attributes		
Description:	The *Subscriber users list* report shows all users assigned to the selected *Current analysis context.* The *User assignment* filter allow further selection of: ▪ Subscribers with users assigned; ▪ Subscribers with no user assigned.	
Constraints:	When the report is emailed or downloaded, *User* and *No user* icons are replaced by their respective text labels	
Variations:	▪ Can be viewed using any organisational structure you are assigned to; ▪ Drill-down options are not available.	
Report basis:	*Usage detail records*	
Sequence:	*Subscriber*– ascending	
Filters:	*Showing data for*	`[selected level]`
	User assignment	`{`**`All`**`; No user assigned; User assigned}`
	Subscriber	The search text box filters the *subscriber* column.
Functionality:	(search icon)	Not available
	(user icon)	Not available
Viewable columns – mandatory columns in **bold**, deselected columns in (brackets).		
Report summary level — Group level	Not available	
Report summary level — Subscr. Level	▪ *Subscriber;* ▪ *Version;* ▪ *Label.*	
Report detail level	Not available	

17. Advanced usage tagging

OPTIONAL: This optional module provides additional usage tagging management features.

This chapter deals only with the management aspects of usage tagging

Advanced usage tagging provides additional *Usage tagging management* features such as:

- Configuration management

  Enables *Administrator users* are to define default settings for *Usage Tagging* throughout A7.

  For example, they may set all calls to be personal by default , with *subscribers* users identifying their business calls through submitting their tagging..

- Phone Book management

  This option adds a public phone book to the private phone book accessible as standard by all users.

- Rules management

  Enables an *Administrator user* to create and assign rules to an organisational structure and the structure positions within it.

  For example, they may define that all International calls are personal for structure position A, while B might have all weekend calls tagged as personal.

Configuration settings, Rules, and Phone book are applied at data load time; any changes made after that point are applied to the next bill not the current bill.

17.1. Managing the public phone book

Only Administrator users can maintain the *Public phone book* but all users see the entries in it..

The entries in the public phone book are in the same format as private phone books with the exception of an additional data item, which dictates the default tagging policy for any future usage; this default tagging action is displayed as an information message.

For details on using the phone book editor, including bulk handling – see *Ch. 19(on page 122).*

17.2. Managing the Configuration

Use *Usage Tagging Configuration* to set a *Tagging policy* for all usage.

Available only to:
- Administrator users;
- Group users with Tagging rules rights.

An example tagging policy …

Use this feature to set all calls to be personal by default. Then the Subscriber users need only manually identify those calls which were for business purposes.

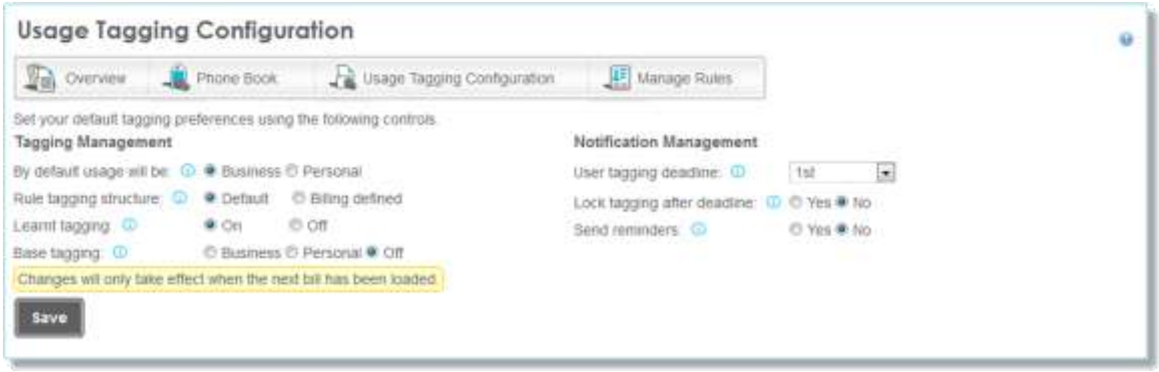


Figure 95: Usage tagging configuration page

A7 applies all settings at data load; subsequent changes take effect after the next data load.

Manage configuration settings

1. From the *Main menu*, **Usage tagging**
2. Within the Usage tagging overview, select **Usage tagging configuration**
   A7 displays the Usage tagging configuration page – *Figure 95 (**above**)*.
3. Set the required *Tagging management options* see *Table 27 (below)*.
4. Set the required *Notification management options* see *Table 28 (on page 101)*.
5. **Save** to continue
   A7 saves the changes. Options will become effective only at the next data load.

Table 27: Tagging management options

Option	Type	Description
By default usage will be:	radio buttons	Define how A7 is to automatically tag usage; options {**Business**; Personal} The default setting means that all usage is classed as business usage. This setting does not override any learnt tagging, base tagging or phone book tagging.
Rule Tagging Structure:	radio buttons	Rules can only be applied to one structure at a time. Define the structure to which the tagging rules apply; options {**Default**; Billing defined}. Existing rules are permanently deleted if this option is changed; they must be manually recreated if needed.

Option	Type	Description
Learnt Tagging:	radio buttons	Define whether you want A7 to remember tagging settings from month to month; options { **On**; Off } By default tagging usage as Personal one month will result in A7 tagging that usage in the same way the next time it is encountered. Any tagging set in Phone book or Dialled Number description pop up overrides this option.
Base Tagging:	radio buttons	Defines how usage involving dialled numbers containing a pre-configured identifier are tagged; Options {**Off** ; Business; Personal} Numbers so tagged are not automatically added to Phone Book.

Table 28: Notification management options

Option	Type	Description
User Tagging Deadline:	Drop down list	Define the date by which a user must tag and submit their usage tagging; options {**No deadline**, 1st through to -31st}. This date is used on the *data loaded email* If the default *no deadline* option is chosen then no other *Notification Management* options are available; no date is shown on the data loaded email and the subscriber users are given no submission deadline.
Lock Tagging After Deadline:	radio buttons	Available only if a Usage tagging deadline is set Define whether tagging is to be locked once the *user tagging deadline* is reached; options {**Yes**; No}. The default option means all usage is set to *Submitted*. The status of the subscriber (for example, viewed or not viewed) remains unchanged but the user is unable to make further tagging changes. Individual or groups of users can be unlocked if required using the appropriate report.
Send Reminders:	radio buttons)	Available only if a Usage tagging deadline is set This allows you to send reminders to users to submit their tagging and is used on conjunction with the *Reminder days* setting; options {**No**; Yes}. By default no reminders are sent.
Reminder Days:	drop down list	Available only if Send Reminders=Yes Select the number of days prior to the submission date after which the system is to send email reminders to users who have not viewed their tagging report Options:{1 thru 20}.

17.3. Managing tagging rules

17.3.1. About rules

The *Manage rules* feature allows users with *Tagging rules permissions* to create *Tagging rules* and apply them to *structure positions (that is, groups or subscribes)* within those structures.

Each structure position (group or subscriber) can only have one rule applied at any one time, but does not need to have a rule, in which case A7 uses the *Usage tagging configuration* settings.

Each rule comprises a number of categories, which can be set to either *Personal* or *Business*, these include the ability to tag usage based upon:

- Its Destination type;
- Its Transmission type;
- The Time of Day;
- Whether it is Peak or Off Peak;
- Whether it is an Internal call;
- The Day of the Week.

How can I use this?

You may choose to apply different rules to different groups depending upon their function, for example:

- A rule of All International calls are personal to one group
- A rule of All weekend calls are personal to another group..

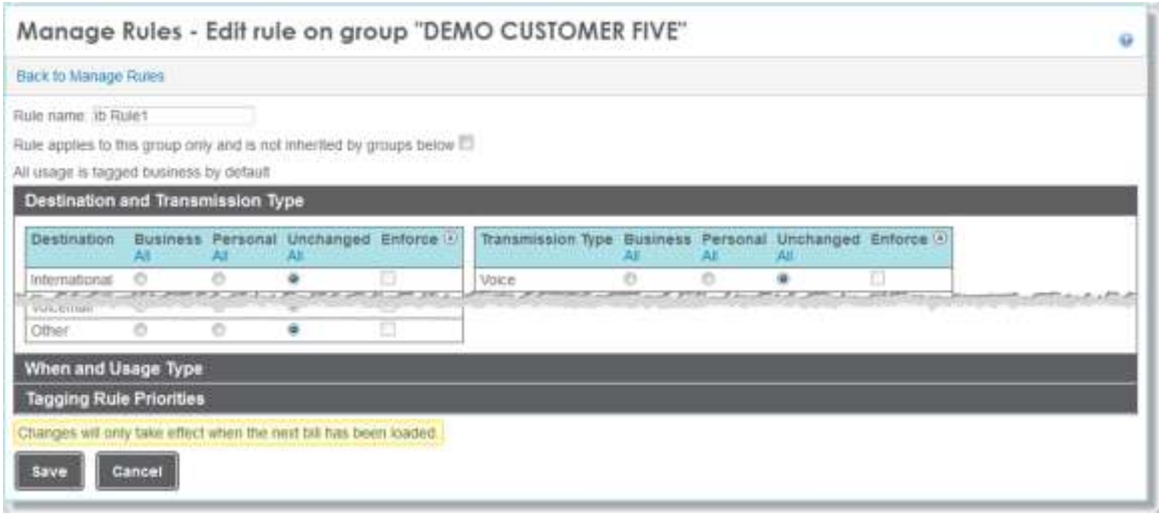


Figure 96: Manage rules - Create/Edit rules page example

Users assigned to *subscribers* can tag or untag any usage that was auto-tagged (or untagged) by a rule.

Rules can be applied to:

- The whole *Organisational structure*,
- A *Group* and all *Groups* below,
- A single *Group*.

Enforcing rules … an example

Setting Enforce on a rule that tags Premium Rate calls as Personal ensures that the Premium rate option is not updateable in rules for any lower level group(s).

Setting any of the above categories to *Enforced* overrides all other rules.

Each user assigned to a subscriber has the ability to see the rule(s) assigned to them.

17.3.2. Using the Manage rules page

Using the *manage rules* feature you can choose to either:

- *Add a rule (on page 103)*

  Create new rules;
- *List the rules assigned (on page 104)*

  A7 displays list of the rules assigned to each level of the *Organisational structure*. You can choose to view, edit or delete existing rules;
- *Show Rule Assigned (on page 105)*

A7 displays a break down of the rule assigned to the selected *Group*.

The *Tagging rules* apply to usage (not charges) on the latest *Default* or *Billing-defined* structures, that is:

- The latest created structure for the *Default* structure;
- The previous billing structure – not the billing structure loaded in the data – for the *Billing-defined* structure.

Changing the structure against which rules apply

If this setting is changed all rules on the previous structure will be dissociated and deleted from the structure and must be recreated and re-assigned to the new structure.

Add a rule

Only available when no rule exists at the selected structure position

1. From the Main menu, select **Usage tagging**
2. From the *Usage Tagging Overview* page, select **Manage rules**

   A7 displays the Manage rules page including a list of the rules assigned at each level in the selected *Organisational structure.*

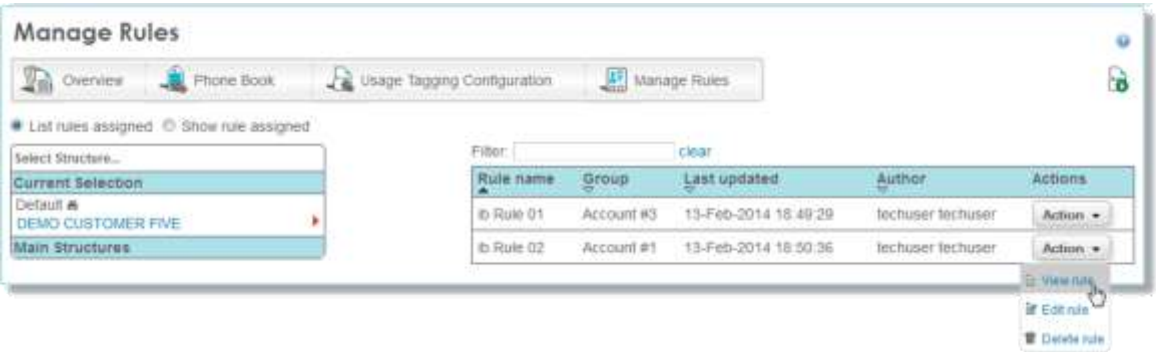


Figure 97: Manage rules page

3. [Optionally] If *Show rules assigned* is checked, select **List rules assigned**

   A7 displays the rules list.

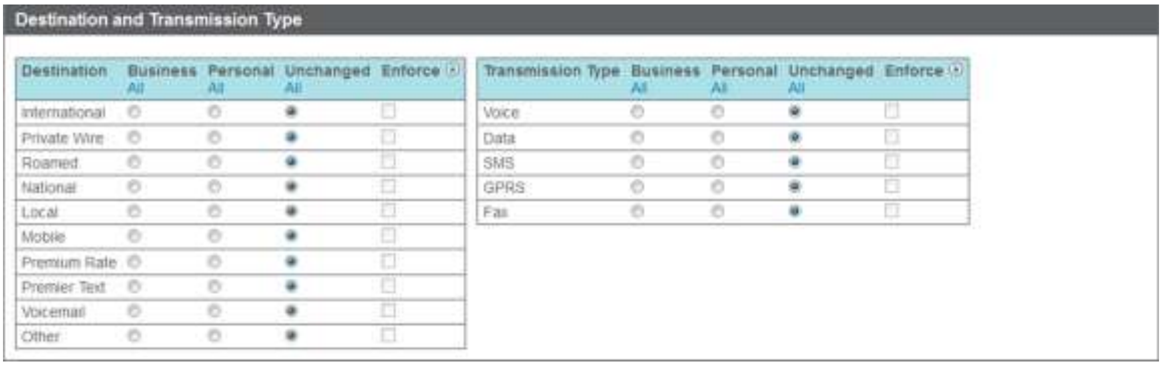
4. **Add Rule**

   A7 displays the *Manage rules – Create rules* page, showing the *Destination and Transmission Type tab*.

5. Within the *Manage rules* page

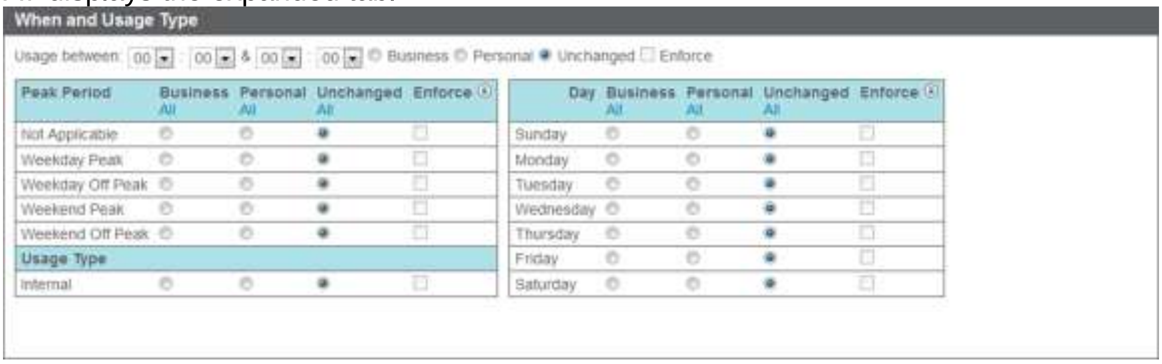
   i. If the rule is to apply only to this Group, select Rule applies to this group only

6. [Optionally] Within the *Destination and Transmission type* tab, set the required rules by selecting (or deselecting) the check boxes.



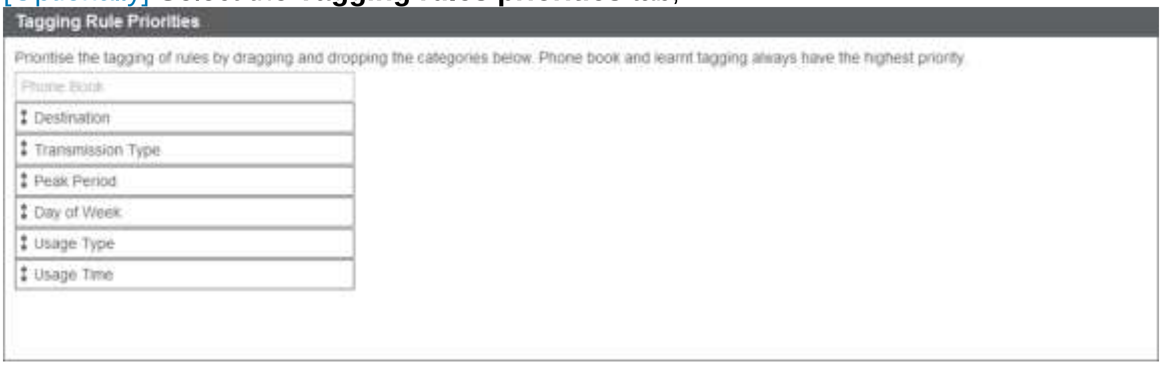
7. [Optionally] Select the **When and Usage type** tab

   A7 displays the expanded tab.



   Set the required rules by selecting the check boxes.

8. [Optionally] Select the **Tagging rules priorities** tab,



   Set the required rule priority by dragging the boxes into the required order.

   Highest priority is at the top.

9. **Save** to continue

   A7 saves the changes, to be applied following the next data load.

List the rules assigned

1. Within *Manage rules,* select **List rules assigned**.

   A7 displays a list of rules for the structure.

[Alternatively] If no rules exist

A7 uses the *Usage Tagging Configuration* settings and displays the message:

No rules defined on this group or below: inherited rule or default will apply

2. [Optionally] Select **Action» Edit rule** to change the settings

   A7 displays the *Manage rules – Edit* page.

   Edit the settings as described above for the Add rule feature.

3. [Optionally] Select **Action» Delete rule** to remove a rule

   A7 displays a Confirmation request message.

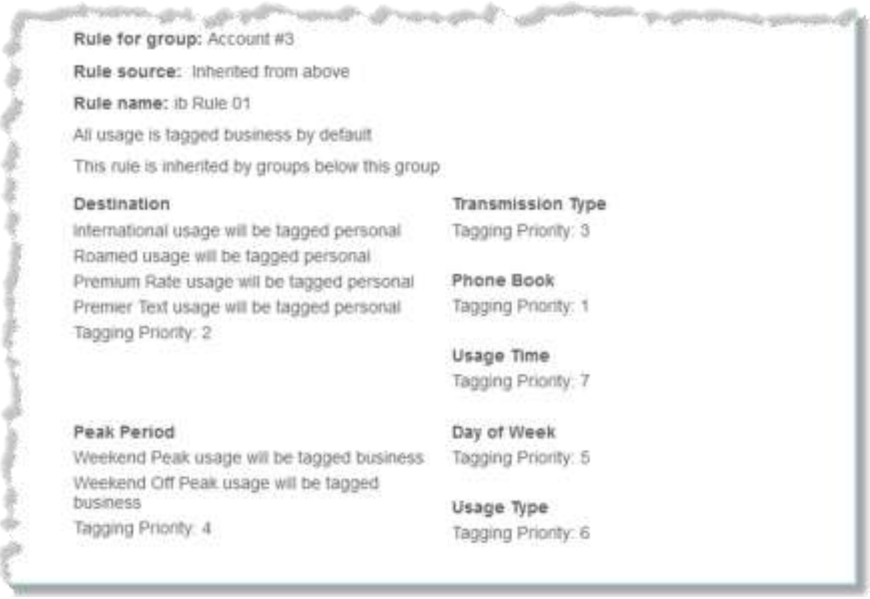
   Delete to continue

   A7 deletes the rule.

Show Rule Assigned

This view displays the detail of each rule applied to the selected structure position (group or subscriber).

The default usage tagging defined in *Usage Tagging Configuration* is displayed, along with information on whether it is inherited by structure positions below it.



17.3.3. Non-participating users

When assigning a user to a subscriber you have the option to mark them as a *Non-participating user*, which means they will not have to tag their usage.

A7's *Non-participating users* feature caters for:

- Managers or staff who are not required to tag their usage – perhaps having personal calls paid for them – but who still want to view their usage;
- Users who want to analyse their spend but not tag their calls.

Part six:

Using Administration features

Chapters in Part six:

Use the *Administration* sub-menu to:

- Manage *A7* elements (for example, *Groups, Subscribers* and *Users*,
- View the Audit reports;
- Manage public and private *Phone books*;
- Maintain *Currency conversion lists*.

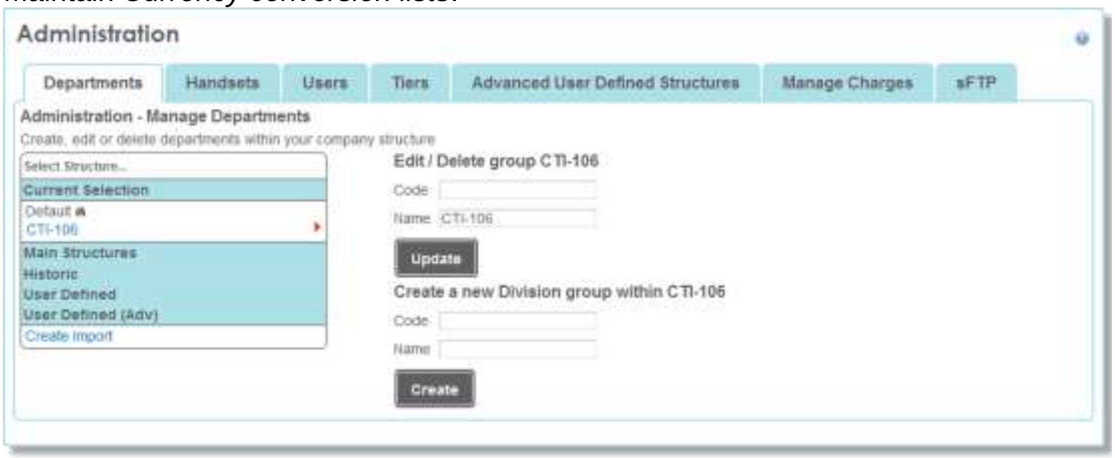


Figure 98: Administration page

18. Administration Management

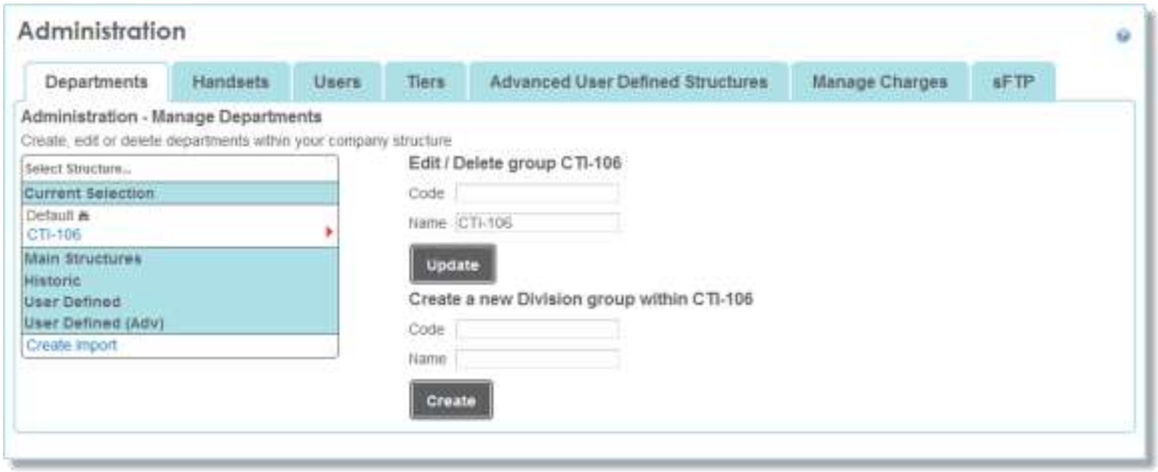
Use the tabbed *Administration management* page to manage A7 elements such as:

- Groups (Departments) – *Ch. 18.1 (below)*
  Maintain the default and user defined structures;
- Subscribers (Subscribers) – *Ch. 18.2 (on page 110)*
  Maintain assignment and tagging for subscribers;
- Users – *Ch. 18.3 (on page 112)*
  Create and maintain users;
- Tiers (Levels) – *Ch. 18.4 (on page 117)*
  Increase or decrease the depth of the hierarchy and name or rename the levels within it;
- Advanced User-defined structures {add-on} – *Ch. 18.5 (on page 117)*.
- Charges {add-on} – *Ch. 18.6 (on page 119)*.
- sFTP configurations {add-on} – *Ch. 18.7 (on page 120)*.

18.1. Managing groups

Manage groups allows you to, add, edit and delete elements from the *Default structure* and any *User-defined structures* to which you have structure permissions.

Related information



If you add a group below what is currently the lowest level of the structure's hierarchy then A7 automatically adds (or removes) a level – see: *Ch. 18.4 (on page 117)* for more on levels.

Create a User-defined structure

Available only if *Advanced user-defined structures* is not deployed

1. From the Main menu, **Administration»Management**
2. Within *Administration* page, select the **Groups** tab.

3. Within the *Structure browser control*, select **Create** link.
   A7 launches the *Create new user-defined structure* pop-up panel

4. Within *Create a new* UDS
   i. Select the creation method
   ii. Input a name for the structure
   iii. Create to save the structure
   A7 displays a success message
   iv. Close the panel to continue
   A7 creates the structure, which you can now maintain using *Manage subscribers* and *Manage groups.*

Create a group

1. From the Main menu, **Administration»Management**
2. Within Administration page, select the **Groups** tab.
3. Within the *Structure browser control*, navigate to and select a parent group.
4. Within *Create a new* group,

No reports display this code.

   i. Input the required Group name as Name.
   ii. Create
   The new Group is added to the structure.

Rename a group

Available only to Administrator users

1. Within the *Structure browser control*, select the group to rename
2. Within *Edit / Delete* group:

No reports display this code.

   i. Input the required new name as Name.
3. **Update**
   A7 applies the new group name to the structure.

Delete a group

> You can only delete *Groups* that have no *Subscribers*, *Users* or child *Groups*.

1. Within the *Structure browser control*, select the group to delete
2. Within *Edit / Delete* group, **Delete**

   The selected group is deleted from the structure.

> Displays a warning message if associated *subscribers*, users or child groups are found.

18.2. Managing subscribers

The *Manage subscribers* feature enables *Top-level* users with appropriate structure permissions to move *subscribers* between *groups* in the organisational structure; they may also rename *subscribers*.

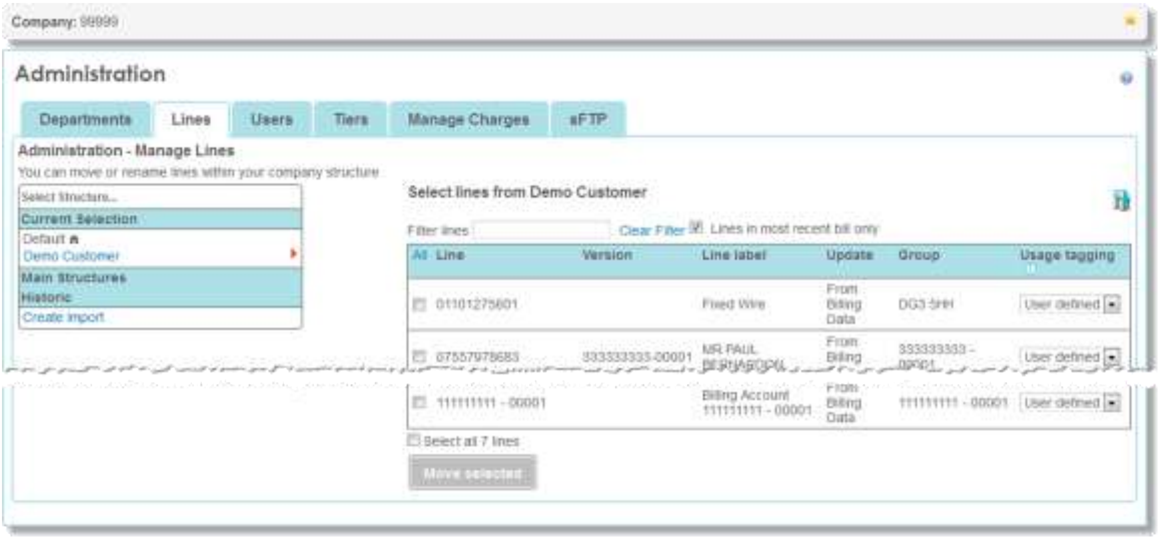


Figure 99: Administration Manage Subscribers panel

Searching for subscribers

- Subscribers appear in ascending numeric order.
- Input a full or partial subscriber/label as Filter subscribers. A list of matching subscribers is returned.
- A warning message is displayed is when no matching subscribers are found.
- Clear Filter to return to the full list of subscribers.

The initial data load derives the *Default* structure from the *Billing-defined* structure.

Subsequent data loads add new *subscribers* to the:

- *Default* structure at the account level;
- *Billing-defined* structure in the same group(s) as specified in the data load file.

18.2.1. Moving subscribers

Moving a subscriber also moves all the history (usage and charges), which will then become visible to all users in the new group.

If a subscriber has a user assigned directly to it, and you subsequently replace the user with a new user, the history (usage and charges) is not visible to the new user.

Move a subscriber to another group

1. Within the *Administration* page, select the **Subscribers** tab.
2. In the *Select subscriber from group* pane, select the required subscriber(s).
3. **Move selected** button

   A7 displays the *Move subscriber to group* panel

Moving multiple subscribers

- You can select multiple subscribers on any one page and move to a different page to select further subscribers; the system remembers subscribers selected in previous pages
- A warning message is displayed if a large number of subscribers are selected to be being moved.
- A progress indicator is displayed during the move.

Figure 100: Move subscriber to group panel

4. Use the *Structure browser control* to navigate to and select the group you want to move the *subscribers* to.

   [Alternatively] Use the *Search* feature to find the group.
5. **Move subscriber(s)** button

   A7 moves the selected subscriber(s) into the group and displays a confirmation prompt panel.
6. **Ok** to continue.

   A7 redisplays the *Manage Subscribers* page.

18.2.2. Renaming subscribers

You can change subscriber names for Default and User-defined structures only.

Changing the subscriber name does not trigger the creation of a user.

Rename one or more subscribers

1. Within the *Administration* page, select the **Subscribers** tab.
2. In the *Select subscriber from group* pane, **Rename subscribers** icon

   A7 displays the *Rename subscriber(s)* panel.

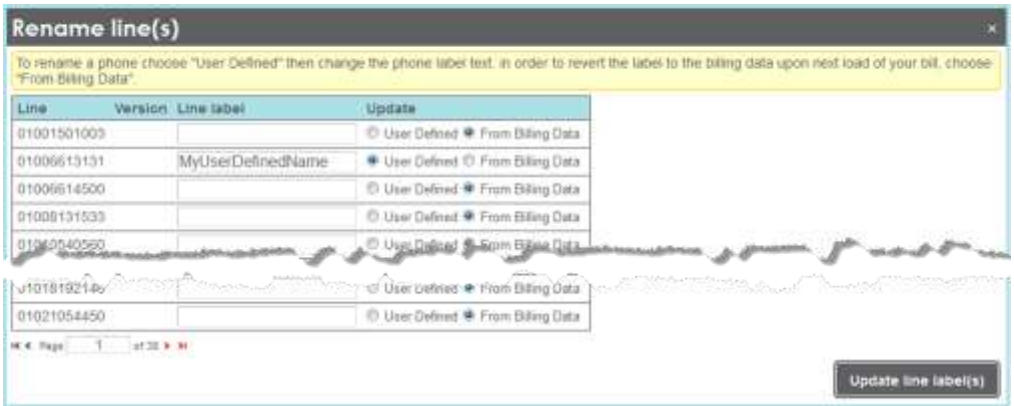


Figure 101: Administration Management Rename subscriber panel

3. For each subscriber to be renamed, repeat:

   Not necessary if the subscriber already has a label.

   i. Input the new label as Subscriber Label.

   This field is useable only when you first select the checkbox *User defined*.

   ii. Update subscriber label(s) to save your changes.
   A7 displays a confirmation message.

18.3. Managing Users

Available only to Administrator users or users with user rights – see: *Table 7 (on page 4)*.

The *Users* tab displays a list of users assigned to the currently selected structure position or below and comprising *Username*, *Email address*, *First* and *Last name, Type* and an *Actions* button.

Figure 102: Manage users page

You can search for a particular user using the *Search filter* text box and the *Type selection* drop down list, which allows the user to confine results to:

- Users with *groups* or *subscribers*
- User with *groups*

- Users with *subscriber*
- Users with no *groups* or *subscribers*

> In this context a Group is a position within the Organisational structure.

You may assign users to:

- A single subscriber
- Multiple *subscribers*
- Groups within the Organisational structures

Constraints:

- The first *Top-level user* created by *A7*– has *Full Admin rights* (that is, rights to both structures and users) and is assigned to the *Default* and *Billing-defined* structures.

> Users created by this *Administrator user*– by default –inherit the same rights and are assigned automatically to the *Default* structure. They are not assigned to the *Billing-defined* structure; do this manually if required.

- *Top-level users* with *Full Admin rights* can edit and disable other *Top-level users,* but cannot edit or disable themselves.

18.3.1. Maintaining user details

Create or edit a User

1. From within the *Administration* page, select the **Users** tab
2. Select **Add New User** icon

   [Alternatively] Edit an existing user, select **Edit** from *Report actions*:

   A7 displays the appropriate panel: *Add new user* or *Edit user*

3. Input (or amend) the values for ***First name, Last name, Email address, Confirm email address*** and **Payroll number** (optional)
4. [Optionally] Select **Add new subscriber or structure position**

> A7 activates the *Add User* button only after you assign a Subscriber or Structure position.

A7 displays a search panel for the selection and assignment of *subscribers* or groups.

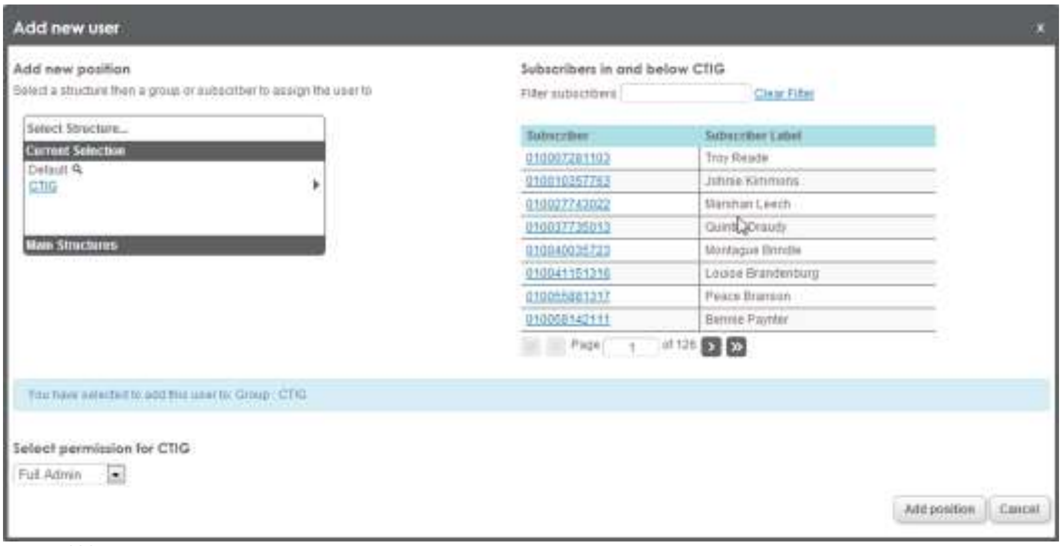


Figure 103: Add new user panel

5. For each required group and subscriber, locate and select the item.

   Add *subscribers* and groups one at a time.

   If adding group positions, select their *User permissions*.

   A7 displays a confirmation message as you add each subscriber or group.

6. **Add position**

   [Alternatively] **Update position**

   A7 saves the changes

7. **Add new user**.

   [Alternatively] **Update user**

   A7 creates the user and emails the website address, username and system generated password.

For example to assign a subscriber,

Locate the subscriber you wish to assign to the user, Add position.

The subscriber is assigned to your user and you can continue to add further subscribers or groups as required.

If the subscriber you are assigning to a user has been present in the data for a number of months, the new user will only be able to view the usage for the latest billing-period.

Subscribers already assigned

If you try to assign a subscriber to a user that has already been assigned to another user you are presented with an error message and must resolve this issue before your user is created.

In the status field against the subscriber that has already been assigned to another user a message is displayed informing you of the user name that subscriber belongs to, you must delete this subscriber from the original user before the new user can be created.

Delete a subscriber or a group

1. From within the *Users* tab, locate the required user row and select **Actions»Delete**,

   A7 displays a confirmation prompt panel

   A7 displays a message if you attempt to remove the user's last subscriber/group.

   Deleting all subscriber and groups from a user renders the user unable to access A7 until you re-assign them a group or subscriber.

2. **Confirm**

   A7 removes the group or *subscriber* from the user.

Disable a User

1. From within the *Users* tab, , select the check box against each user to be disabled

[Alternatively] Select **All** to change all users.

2. **Disable users**

   A7 displays a confirmation prompt panel.

3. **Disable** to confirm

   A7 marks all the selected users as disabled; they can no longer sign-in.

   To re-enable a user please contact your customer service department; also see the A7 Core Back-office Help desk user guide.

18.3.2. User information download and upload

The download only returns those *subscribers* in the current bill and so the subscriber count may not match that in the admin pages, which covers all *subscribers*.

To allow a user to participate in usage tagging you must create a user against a subscriber.

To assist in this process, A7 provides the ability to download a CSV file of current user information, which you can edit as required and then upload the CSV file with your changes – see *Table 29 (on page 116)* for format.

Download current user information

1. From within the *Administration users* tab, select the **Download as CSV file** embedded hyperlink

   A7 displays the *Usage tagging download* panel.

Figure 104: Subscriber-user download panel

2. Within the *Usage tagging download* panel, select the required format options:
   - Improve Excel compatibility checkbox {**No**; Yes};
     Selecting *Improve Excel compatibility* will:
     - Prevent numbers losing preceding zeroes by treating them as formulas;
     - Add a byte order mark to the file, so that Excel 2003 (SP3 - and later) display Unicode characters correctly;
   - Fixed delimiter drop-down list {**Comma**; Semi colon};
   - Text qualifier drop-down list {**Quote**; Single quote}.
3. **Download** to continue.

   A7 downloads the CSV file – for format, see *Table 29 (**on page 116**)*.

Table 29: Usage tagging download columns

<table>
<tr><th>Column name</th><th colspan="2">Notes</th></tr>
<tr><td>Subscriber</td><td colspan="2"></td></tr>
<tr><td>Email</td><td colspan="2" rowspan="3">When uploading the file, Subscribers are only assigned to Users if a unique exact match is found, that is where the existing active user:
▪ Has a username that starts with the one requested,
▪ Has an identical email address
▪ Belongs to the same customer.
If a non-unique match is found the system ensures that a subscriber is not assigned to the wrong user by:
▪ Creating a new user
▪ Assigning the subscriber to the new user
In these instances you may need to manually re-assign the subscriber to the required user with the Manage users feature.</td></tr>
<tr><td>First Name</td></tr>
<tr><td>Last Name</td></tr>
<tr><td rowspan="2">New Login Details Required,</td><td>No</td><td>▪ If the user doesn't exist A7 creates one, otherwise it ignores the user details
▪ If the subscriber already has a user, A7 ignores the supplied user details.</td></tr>
<tr><td>Yes</td><td>▪ If the user already exists
A7 disables the old user creates the new user.
▪ If the user doesn't exist or any details have changed,
A7 disables the old user creates the new user.</td></tr>
<tr><td>Payroll Ref.</td><td colspan="2">The Payroll reference is optional.</td></tr>
</table>

Upload user information

1. From within the *Administration users* tab, select the **Upload the CSV file** embedded hyperlink

   A7 displays the *Usage tagging upload* panel.

Figure 105: Subscriber-user upload panel

2. Within the *Usage tagging upload* panel, select **Browse**
3. Navigate to and select the file to upload.
4. Select the required format options
   - Fixed delimiter drop-down list {**Comma**; Semi colon};
   - Text qualifier drop-down list {**Quote**; Single quote}.
5. **Upload** to continue.

   A7 uploads the CSV file – for format, see *Table 29* (***above***):
   - Validating the *subscriber* and *user details;*
   - Displaying any new users in the user list;
   - Displaying a list of errors detected during the upload.

Any errors must be resolved by a Top-level user, as required.

18.4. Managing levels

A7 provides for a flexible hierarchy depth, allowing a maximum if ten levels (tiers). This tab allows you to give each level a user-defined label as required (for example, Departments or Accounts).

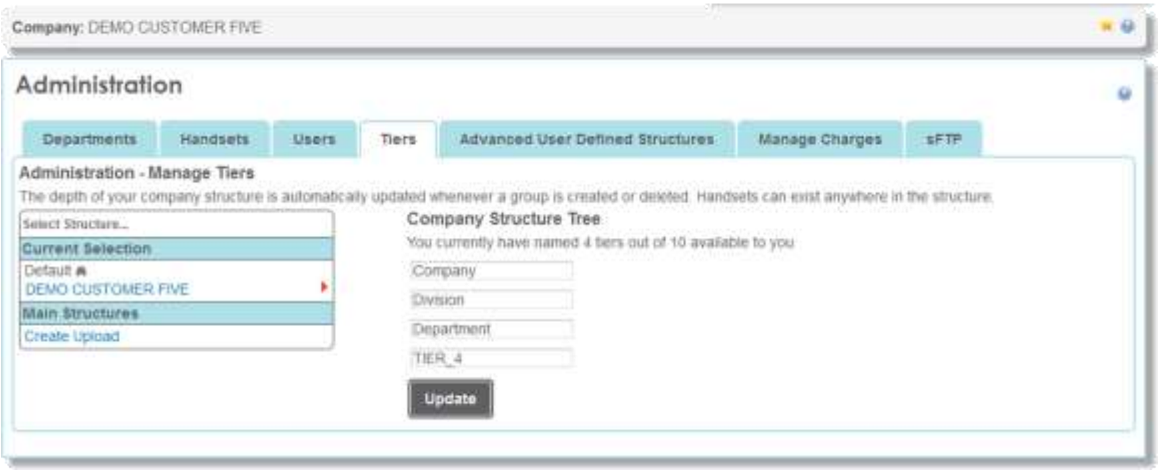


Figure 106: Manage levels tab example

These levels are reflected in the *One line per* filter which is available in some reports and in the *Select Group* drill-down.

A7 automatically adds (or removes) levels whenever necessary an organisational structure changes. For example if you added a group below what was the bottom level, it will add another level (up to the maximum allowed). Levels are automatically named `Tier_x` , where `x` is the level number (1 through 10).

When this process removes levels it retains their original name and will use it again if the levels are increased at a later time.

Edit level names

1. From within the Administrator page, select **Levels**
2. Enter or update the label names as required.
3. **Update** to continue.

18.5. Managing advanced user defined structures

This is an optional module.
It is available only to *Administrator users* on the source structure.

Why create a user defined structure?

if you had a user who needed to view data for the same department in three different countries, (for example, Sales department in France, Spain and UK).

You can create a structure that contains just those groups.

The *Advanced user defined structures* tab allows for the creation of structures by selecting groups and / or *subscribers* from either the Billing-defined or the Default structure.

There are three steps to creating a user defined structure:

- Select the source structure;
- Select the required structure positions;
- Select the type of structure to create.

Create a user-defined structure

1. From within *Administration management*, select the **Advanced user defined structure** tab

   A7 displays the *Manage Advanced User Defined Structures* panel.

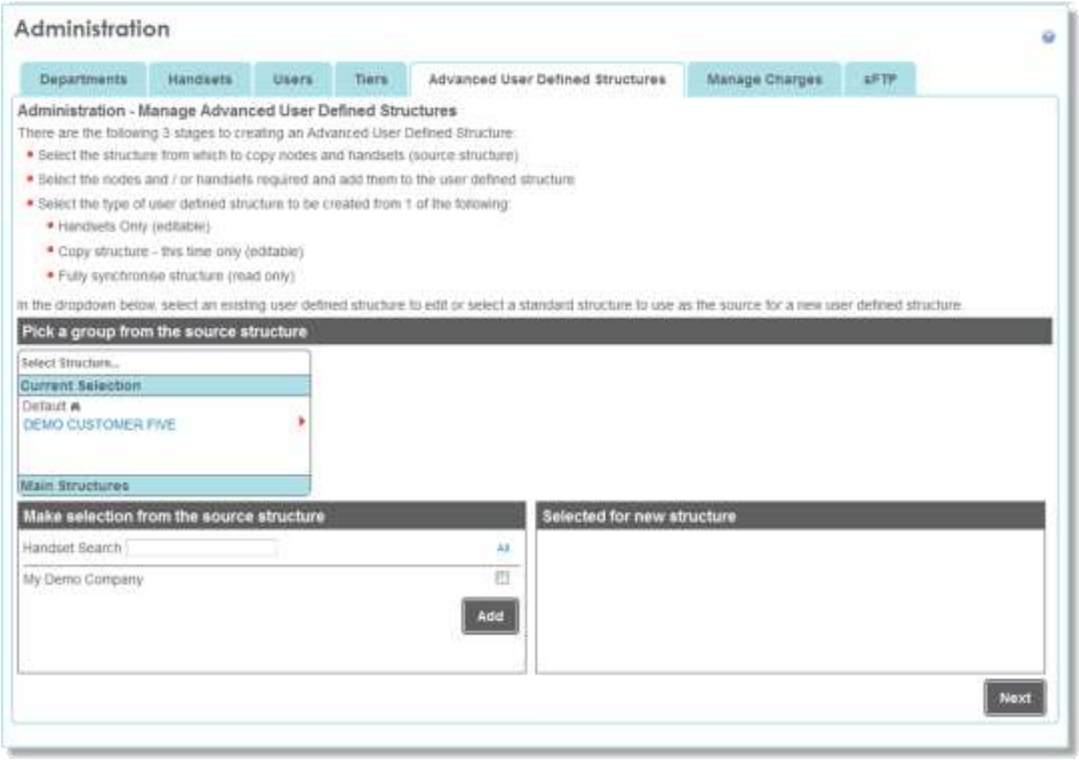


Figure 107: Manage advanced user defined structures

2. Select the source organisational structure
3. For each structure position required

   A7 displays a list of any child groups and *subscribers* in the left pane

   i. For each subscriber or group required, select their checkbox

      [Alternatively] Select **All**

   ii. Add

      A7 adds the selected *subscribers* and groups to the new structure and displays them in the right hand pane.
4. **Next** to continue

   A7 displays a panel allowing you to select the type of structure you would like to create.
5. Select the method from the drop down list
   - Subscribers Only (editable)
   - Copy structure - this time only (editable)
   - Fully synchronise structure (read only)

Clicking on each option displays a description detailing the functionality available to that type of structure.

6. Input a structure name
7. **Create** to save details

   A7 saves the new structure, which can now be selected in *My view*.

18.6. Managing Charges

Optional module
Available only if the Split charges module is implemented.

The Manage charges feature allows you to move charges from *subscribers* within your Organisational structure. Moved charges are visible in all charge reports. There is also an option to reverse the move using *Revert charges*.

You can only move charges using the *Default Organisational structure.*

All totals and summaries remain unchanged.

What is this useful for?

If, for example, all rental charges come under the budget of a single department, you can use this feature to move the rental charges from all your subscribers and allocate them to the appropriate department.

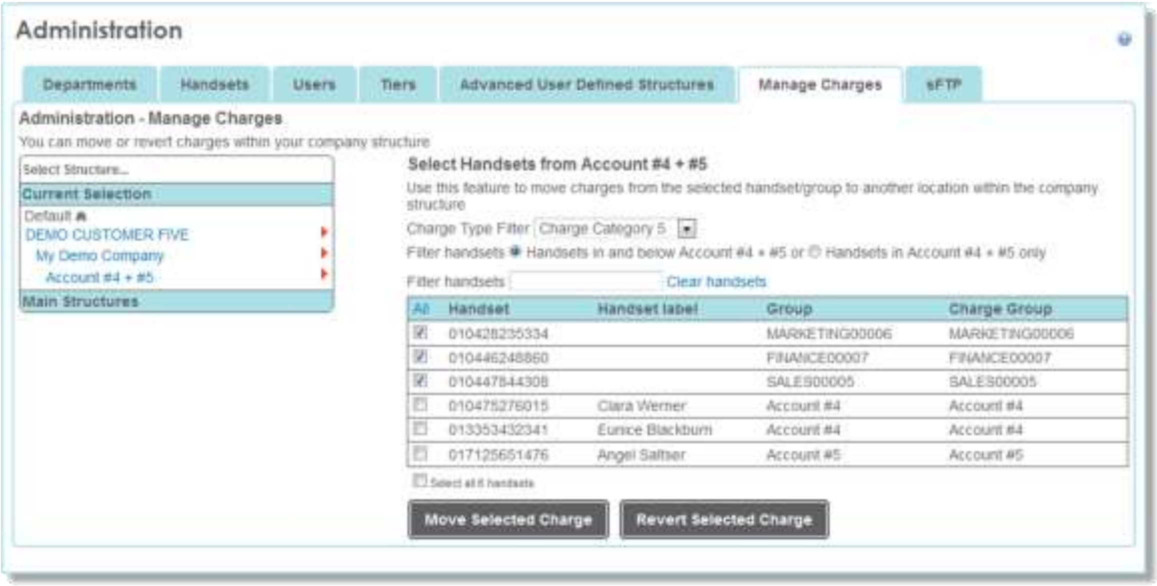


Figure 108: Manage charges page – showing selection of source structures

Move charges

1. From within Administration management, select **Move charges**

   A7 displays the *Move charges* page.
2. Within the *Structure browser control*, navigate to and select the group or subscriber(s) you wish to move the charges from.
3. Select the *charge type* to be moved from the **Charge type filter** drop down box

   A7 displays a list of *subscribers* that contain charges of that type, showing the group the subscriber is assigned to and the group the charge is assigned to.

To view the group the charge is assigned to: Use the *Charge type filter* to select the charge type and the subscriber list is updated to reflect your selection.

4. Select the Subscribers to move charges from

   Unless selecting the top-level of the *Organisational structure* you can select *a* maximum of 999 *subscribers.*

Get around this limitation by using *Select All* and de-selecting *subscribers* you do not want to move charges from.

5. Select **Move Selected Charges** button

If you wish to move more than one charge use the pop-up.

A7 displays the *Move charges* panel, with the selected charge type ticked.

Figure 109: Move charges panel – showing selection of target structures

This panel does not show the selected *subscribers*

6. [Optionally] Select any further charge types to move.
7. Within the *Structure browser control*, select the group to move your charge(s) to
8. **Move charge(s)**

No confirmation prompt panel is displayed.

A7 re-assigns the charges, which will now appear in any report displaying charges.

The *Manage Charges* screen displays the group containing the charges.

Using this feature you can also revert a charge (or charges) back to its (their) original group position (*Revert Selected Charges*).

18.7. Managing sFTP

Available to Administrator and Top-level users only

The *Manage sFTP* feature enables *Top-level users* to assign an external sFTP site to the unbilled download.

If this tab is completed then – when unbilled files are loaded – your accounts will be transmitted via sFTP to the specified site.

Figure 110: Manage sFTP page

When details are entered the Action menu contains a **Test** option, which can be used to verify that *A7* can connect to the sFTP site.

Details of the outgoing sFTP server are provided in the intial registration email to the first top-level user; they can alos be obtained by containing customer services.

19. Managing phone books

All users have access to a *Private phone book*

By default the core A7 product provides for the maintenance of private phone books – the optional module, *Advanced usage tagging,* extends this to add a public phone book and enhanced management features.

What are Public Phone Books …

Public phone books are a feature of the optional Advanced usage tagging module – see Ch. 17 (on page 99).

Private phone book are a list of *dialled numbers* to which a user has added a *description* using the inline *Phone book editor* or directly in the *Phone book editor*.

Private phone book entries comprise:

- A number,
- A description,
- A descriptive icon, which is displayed in reports.

The Administrator's influence

If an administrator user [15] has set a description and icon all other users see them (including all other admin users).

How to revert to the default entry …

Selecting Delete this entry, reverts to the icon and description set in the Public phone book entry;

A7 does not treat similar numbers as the **same** number (for example, 01234-234567 is not the same as 01234234567)

19.1. Using the inline phone book editor

Private phone books are maintained using the *In-line phone book editor* (), which allows you to:

- Add and edit descriptions at any time.

  You should note however that tagging occurs only at data load.
- Delete phone book entries

How edit the phone book inline …

Edit private phone book directly from report detail lines

Select icon to open the inline Phone book editor.

Create or edit phone book entry

1. Within a report, navigate to the *Report detail level*
2. For the required subscriber, select the **In-line phone book editor**

   The *In-line phone book editor* panel is displayed

3. Input the entry details:
   i. Input descriptive text as Description
      This cannot be blank.
   ii. Select an appropriate descriptive to indicate the use for this entry.

[15] That is, a user assigned to the top level of the Organisational structure.

4. **Save** to continue

   A7 saves the details

   [Alternatively] **[Escape]** to abandon the input details.

Delete a phone book entry

1. Within a report, navigate to the *Report detail level*
2. For the required subscriber, select the **In-line phone book editor**

   The *In-line phone book editor* pane is opened.

   Use the filter to search long lists

3. Select **Delete this entry**

   A7 displays a confirmation request message.

4. **Yes** to continue

   A7 deletes the entry.

   [Alternatively] **[Escape]** to abandon the delete and return to the report.

What happens when I delete …

Delete removes the *Phone book* description, icon and (if set) its tagging status from A7.

The icon and description revert to those set in the data load. Configuration settings determine any future tagging actions.

19.2. Using the Phone book editor

Requires the optional *Advanced usage tagging* module (AUT).

Advanced usage tagging adds a *Public phone book* and a *Phone book* management feature, which is accessible from both the *Administration* menu and the *Tagging overview* page.

A7's inline phone book editor () continues to work as described in *Ch. 19.1 (on page 122)*.

Figure 111: Phone book management page

The *AUT Phone Book Editor* allows you to:

- Add and edit descriptions at any time. You should note however that tagging occurs only at data load.

  A7 does not treat similar numbers as the *same* number.

- Delete phone book entries
- Bulk process phone books

  You are able to upload, download and print phone books.

Figure 112: Phone book management page

Create a phone book entry

1. Within the *Main menu,* select **Administration»Phone book**.

   A7 displays the *Phone book management* page – *Figure 111 (on page 123)*

   > **Sorting phone books ...**
   >
   > You may sort the lists by dialled number or description; both are text fields so sorting is done A-Z, not 1-9.

   [Alternatively]

   i. Within the Main menu, select Usage Tagging
      A7 displays the *Usage tagging overview* page.

   ii. Within Usage tagging management, select Phone book
      A7 displays the *Phone book management* page – *Figure 111 (on page 123).*

1. Select the **Create new entries within the phone book** icon

   Input the entry details:

   > **The No Change option ...**
   >
   > A7 uses the By default usage tagging will be setting; as set in the Usage tagging configuration feature.

   i. Input the number as Dialled number

   ii. Input descriptive text as Description
      This cannot be blank.

   iii. Select an Icon to indicate the use for this entry

   iv. {Optionally – for Public phone books only} Select Business, Personal or No change as the Default tagging option.

   v. {Optionally – to add further entries} Add new row icon
      A7 displays a further blank row
      Repeat step 3.

2. **Save** to continue

   A7 saves the details

   Close icon to return to the *Phone book*

   [Alternatively] **Cancel** to abandon the input details.

Delete a phone book entry

1. Within the *Main menu,* select **Administration»Phone book**.

   A7 displays the *Phone book management* page – *Figure 111 (on page 123)*

   [Alternatively]

   i. Within the Main menu, select Usage Tagging
      A7 displays the *Usage tagging overview* page.

   ii. Within Usage tagging management, select Phone book
      A7 displays the *Phone book management* page – *Figure 111 (on page 123).*

2. Locate the entry to be deleted

   Use the filter to search long lists

3. Within the required report line, select **Actions»Delete Entry**

   A7 displays a confirmation request message

What happens when I delete …

The delete feature removes the *Phone book entry*, its description, icon and tagging status from A7.

The icon and description revert to those set in the data load and configuration settings determine default future tagging actions.

4. **Yes** to continue

   A7 deletes the entry

   [Alternatively] **No** to cancel the deletion

19.3. Handling bulk phone book entries

Requires the optional *Advanced usage tagging* module

You can *import* and *export* a *CSV* file of Phone book entries using the *Upload* and *Download* icons

A7 uploads the file on demand but any changes to future tagging take effect only at the next data load.

19.3.1. File format

The file contains columns for the:

- *Dialled number,*
- *Description,*
- *Default tagging type.*

  For the public phone book only.

  - 0 = Tag as Business
  - 1= Tag as Personal
  - Blank = *no change* {Default value}

There is no icon column. The upload settings specify an icon to be applied to all entries.

19.3.2. Uploading phone book entries

The upload panel allows you to select to:

- Overwrite existing details {default},

  This mode overrides the values of any existing entries in the phone book with those in the uploaded file;

For example if an entry is set to *Business* in the phone book and the upload contains the same entry set to *Personal*, the personal entry overrides the business entry

- Not *overwrite existing details*

  Any existing entries are retained untouched.

For example: If you upload ten entries and eight of them already exist, then only two entries are processed,

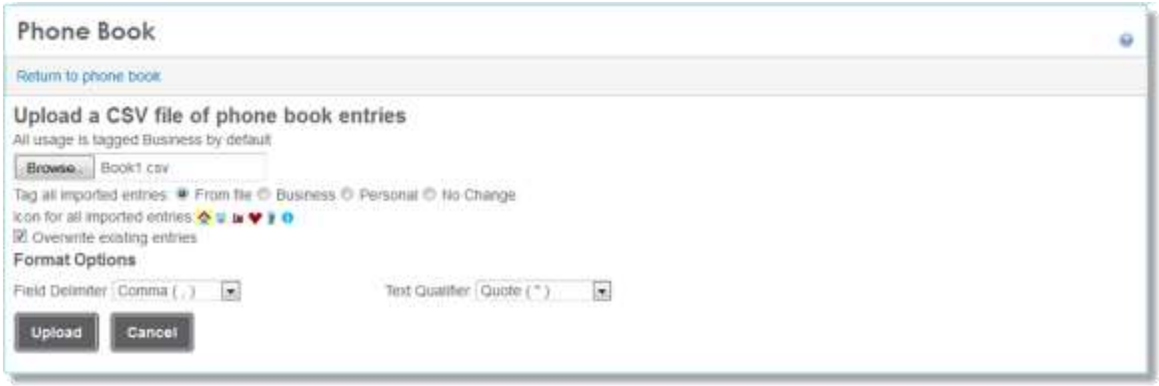


Figure 113: Upload phone book entries panel

Upload Phone book entries

1. Within the *Usage tagging management* pane, select **Phone book**.

   [Alternatively] if Advanced usage tagging is deployed Within the *Main menu,* select **Administration»Phone book**.

2. Select the **Upload** icon 

   A7 displays the upload panel – *Figure 113 (above)*.
3. Select **Browse**

   A7 opens a file browser panel.
4. Navigate to the required file**,** select **Open** to continue
5. [Optionally] Select an **Icon** to apply to all uploaded entries.
6. [Optionally] Deselect **Overwrite existing entries** to ignore any existing entries.
7. [Optionally] Select a delimiter from the drop-down list **Field delimiter**
8. [Optionally] Select a qualifier from the drop-down list **Text qualifier**
9. Select **Upload** to continue

   A7 uploads the selected data and saves the details

   A confirmation panel is displayed

   Select the Close icon to return to the *Phone book*

   If errors are found then an error panel is displayed – see *Appendix D Phone book upload failures (on page XIV)* for further information.

   [Alternatively] **Cancel** to abandon the input details.

19.3.3. Downloading phone book entries

Figure 114: Download phonebook entries

Save phone book

1. Within the *Main menu,* select **Administration»Phone book**

   [Alternatively] Within the *Usage tagging management* pane, select **Phone book**.

2. Select the **Save** icon

   A7 displays the *Download phone book entries* panel – *Figure 114 (above)*.

3. [Optionally] Select **Improve excel compatibility**.

4. [Optionally] Select a delimiter from the drop-down list **Field delimiter**

5. [Optionally] Select a qualifier from the drop-down list **Text qualifier**

> **Excel compatibility options …**
>
> Selecting Excel compatibility prevent numbers from losing preceding zeroes by treating them as formulas.
>
> A byte order mark is also added to the file so that Excel 2003 (Service Pack 3) and later will display Unicode characters correctly.

6. Select **Download** to continue

   A7 downloads the selected data and saves the details in accordance with your browser settings. The file name is `phonebook.csv`

   Select **Return to phone book**

   [Alternatively] **Cancel** to abandon the download.

20. Managing Currencies

A7 caters for multiple currencies by providing *Currency Conversion Lists*. These manually maintained lists enable you to configure exchange rates for multiple currencies, enabling reports to display multi-currency usage in a *single converted currency*.

Viewing multi-currency accounts …

A7 prompts CBV users viewing multiple currency accounts to define currency conversion rates the first time they use A7.

- Within the displayed prompt panel, select Define currency conversion rates to open the Currency conversion panel

You must create *Currency conversion lists* defining target currency details for each of the currency that may appear in your data – see *Create a currency conversion list (on page 129).*

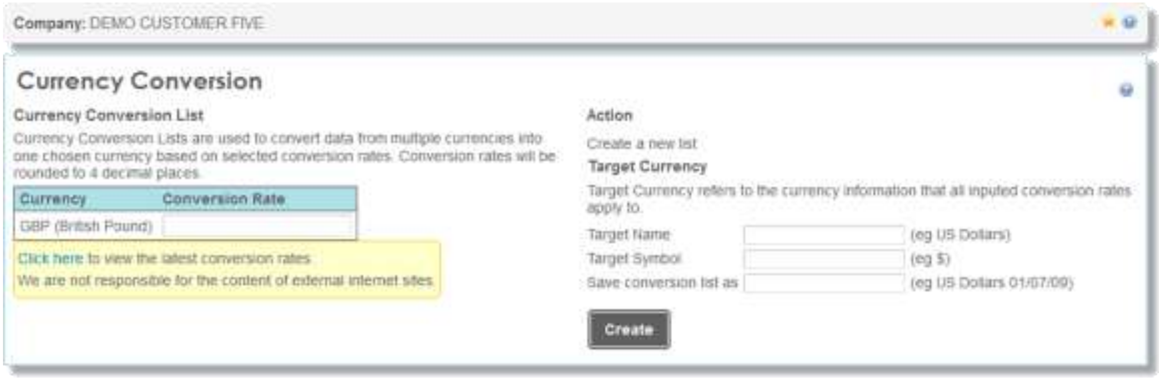


Figure 115: Currency conversion panel

The *Currency conversion* panel comprises two parts:

- On the left is a pane displaying
  - The currency into which A7 converts all other currencies in the data load;
  - The rate A7 must multiply this currency by in order to get the equivalent value in the target currency selected on the right hand side of the panel.

    To get the latest rates select **Click here** to link to an Exchange rate website.
- On the right hand side is a pane displaying the selected target currency's details (if any).

If the data comprises a mix of Euros, USD (US Dollars) and GBP (GB Pounds), to be displayed as a unified GBP value:

- Create a target currency for GBP specifying a 1:1 conversion rate.
- Create a target currency for Euros, specifying a conversion rate of, for example, 1.2000 (that is, £1 buys €1.2);
- Create a target currency for USD, specifying a conversion rate of, for example, 1.6000 (that is, £1 buys $1.6).

You can also edit and delete existing *Currency conversion lists* from within the Currency conversion panel – see *Update or delete a currency conversion list (on page 129).*

Currency fields allow up to four decimal places but trailing zeroes are not required; so 0.8 and 0.8000 represent the same value

Create a currency conversion list

1. Within the *Main menu,* select **Administration»Currency**
2. Select the **Create a new list**

   A7 displays the *Currency conversion panel – Figure 115* (*on page 128*).
3. Within the Target currency pane, input
   - Descriptive text as the **Target name**
   - The symbol representing this currency as **Target symbol**
   - A name for the currency as **Save conversion rate as**
4. **Create** to continue

   A7 saves the currency details.

The rate is immediately available for selection (for example within *My view)*

Update or delete a currency conversion list

1. Within the *Main menu,* select **Administration»Currency**

   A7 displays the Currency conversion panel

The Update option is displayed only if lists have been created.

2. Select **Update existing list**

   A7 displays a drop-down list containing the available *Currency conversion lists*
3. Select the required currency conversion list from the drop-down list
4. Edit the displayed currency details.
5. **Update** to continue

   A7 saves the currency details.

   [Alternative 1] **Cancel** to exit without changing the details.

   [Alternative 2] **Delete** to remove the list.

   A7 displays a confirmation prompt panel; **Delete** to confirm.
   The list is no longer available for selection.

Appendices

List of appendices

Appendix A Browser compatibility

A7 relies on web standards that older browsers may not fully support.

A7 supports a browser page resolution of 1280 by 1024 px.

This version of *A7* explicitly supports the browsers:

> **Microsoft Windows 8 ™**
>
> Support for IE 10 is applicable only when running in Desktop-style for Windows 8.

- *Microsoft Internet Explorer (IE)* ™ (versions 8, 9, 10 and 11);

  Earlier versions of IE are no longer supported

- *Mozilla Firefox* ® and *Google Chrome* ® major releases on *Microsoft Windows* ™;
- Apple Safari ® and *Google Chrome* on iOS7.

Browser	Windows 7	Windows 8	Windows 8.1	Android	iOS7 [16]
IE8	✓	✓	✓	✗	✗
IE9	✓	✓	✓	✗	✗
IE10	✓	✓	✗	✗	✗
IE11	✓	✗	✓	✗	✗
Metro IE 10	✗	✗	✗	✗	✗
Metro IE 11	✗	✗	✗	✗	✗
Chrome 32 [17]	✓	✓	✓	✗	✓
Firefox 30 [17]	✓	✓	✓	✗	
Safari	✗	✗	✗	✗	✓

Key	
✓	Supported
✗	Note supported

16 This is only for PDFs on iPads/iPhones

17 Only the latest *major* number releases are tested

Appendix B Excel and .CSV Compatibility

Support for Office 2003 is deprecated and will be revoked after 31st July 2015

A7 CSV exports will open in all versions of Excel, however the Excel exports will only work on versions of Excel from 2003 and onwards. CSV by default outputs everything as UTF-8 as this supports the majority of character sets for different countries and languages.

When saving and emailing reports, if you opt to export your report in .CSV format using a version of Excel before Excel 2003 SP3, the cost column will display the currency symbol as Â, this is because Unicode UTF-8 is being used, all versions off Excel from Excel 2003 SP3 will display all currency symbols correctly.

Images within Excel spreadsheets are not supported.

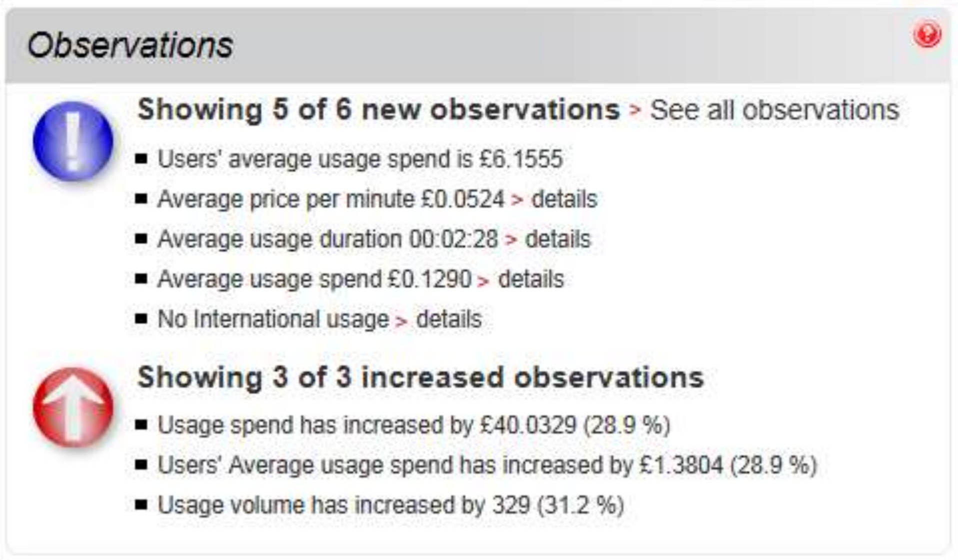
It is recommended that if you use earlier versions of Excel, you open your .CSV file in Notepad and save as a Unicode file.

Appendix C Deprecated features

C.1 Dashboard features

C.1.1 Observations

These are static observations highlighting averages and changes in your bill from last month; a hyperlink is displayed this will take you to the appropriate report where you can view more details.



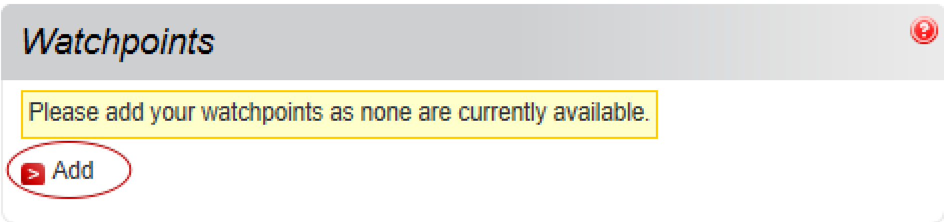
C.1.2 Watchpoints

This functionality allows you to enter up to:

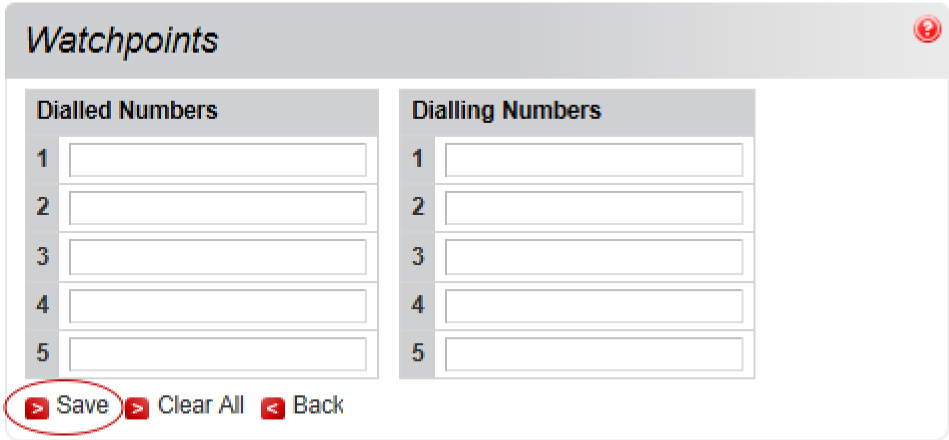
- 5 Dialling Numbers and /or
- 5 Dialled Numbers

Then analyse the spend between the latest billing period and the previous billing period. If the dialling number is not present in the previous bill the watch point for this bill is shown as zero.

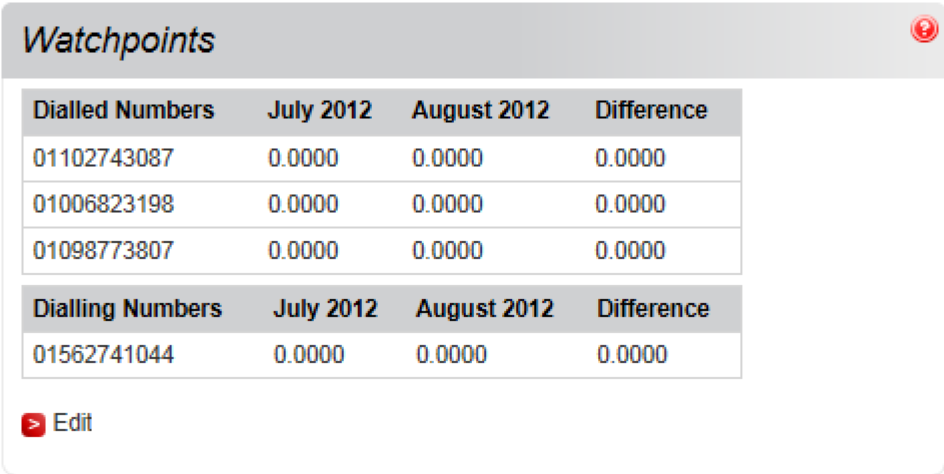
1. To start adding numbers simply click *Add*:



2. Input your chosen numbers



3. Just click *Save* and your screen will dynamically change to display these Watchpoints.


Watchpoints

Dialled Numbers	July 2012	August 2012	Difference
01102743087	0.0000	0.0000	0.0000
01006823198	0.0000	0.0000	0.0000
01098773807	0.0000	0.0000	0.0000

Dialling Numbers	July 2012	August 2012	Difference
01562741044	0.0000	0.0000	0.0000

Edit

C.2 Home page features

C.2.1 Headline summary – Six-charge-category model deployments

Use the scrollable *Headline summary* pane to gain a quick overview of the state of the selected context.

Figure 116: Headline summary feature

The pane contains embedded hyperlinks to reports containing further details on the values displayed.

C.2.2 Recent charges – Six-charge-category model deployments

My Recent Charges shows summaries of:

- *Totals of recent charges* for the currently selected and previous billing-periods.
  These can be expanded to display a break down of the figures excluding VAT and the VAT amount

- *Subscribers* [18] in the currently selected structure and billing-period, which is expandable to display a break down by *Service Type*.

  Subscribers loaded prior to June 2013 show a service type of Unknown.

The *Cost Adjustment Icons* indicate how each of the figures has changed since the last billing-period (hovering over an icon will display the previous bill's figure).

Depending on assigned permissions and features available *My recent charges* may also display quick links to the:

- *Charge-categorisation* report – see *Topic 15.1.1 (on page 68)*;
- *My Recent Charges – Invoices* feature;
- *Usage report – see* *Topic C.3.5 (on page XII).*

C.2.3 My recent invoices

Available to Account level users (or above).

The *My recent invoices* feature displays a list of loaded invoices (five per page) for the currently selected billing-period, with the option to download a PDF version.

Individual invoices can be searched for by *Invoice number*.

Figure 117: Sample My recent charges - Invoices feature

You do not need to be viewing the *Billing-defined structure* to see the list and download PDF invoice copies.

[18] Sample image shows this labelled as Lines.

C.3 Deprecated Reports

C.3.1 Cost allocation report (6 Charge-category model only)

The *Cost allocation* report summarises usage by *Cost allocation* and can be used to highlight areas of high or low spending.

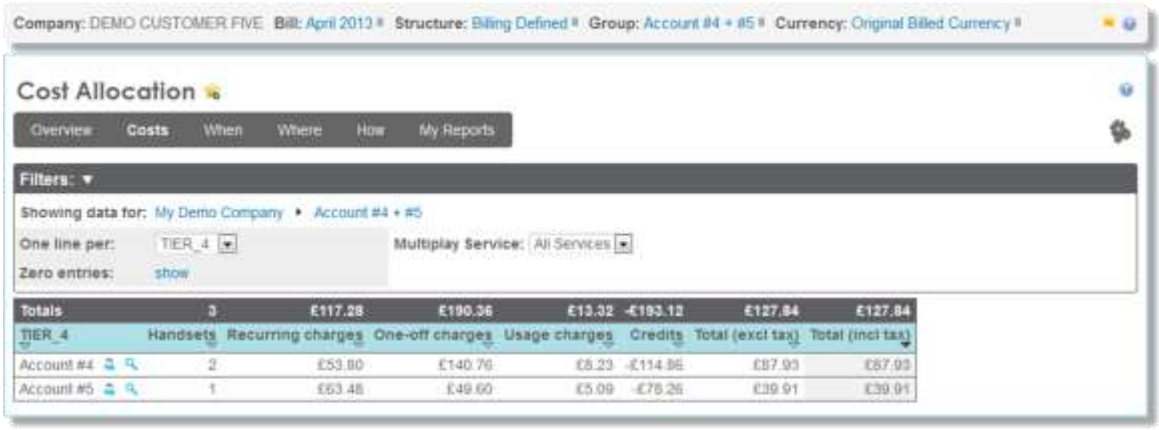
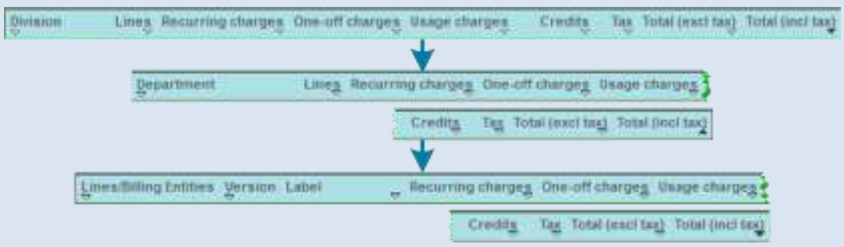


Figure 118: Cost allocation report sample

Table 30: Cost allocation report attributes

<table>
<tr><th colspan="4">Report attributes</th></tr>
<tr><td>Description:</td><td colspan="3">The Cost allocation report displays up to three Charge-categories and three corresponding credit categories.</td></tr>
<tr><td>Constraints:</td><td colspan="3">None identified.</td></tr>
<tr><td>Variations:</td><td colspan="3">Unavailable report functionality:
Cost adjustment arrows not displayed.</td></tr>
<tr><td>Report basis:</td><td colspan="3">Charge detail records</td></tr>
<tr><td>Sequence:</td><td colspan="3">Cost - descending.</td></tr>
<tr><td rowspan="2">Filters:</td><td colspan="2">Fixed:</td><td>Selectable:</td></tr>
<tr><td colspan="2">Showing data for [<code>selected level</code>]</td><td>▪ Multiplay service;
▪ Show zero entries,
▪ One-line-per.</td></tr>
<tr><td rowspan="2">Functionality:</td><td></td><td colspan="2">Drill-down directly to Report results summary level.

</td></tr>
<tr><td></td><td colspan="2">Drill-down the Organisational structure from your starting level to Subscriber-level and then to Report results summary level.

</td></tr>
</table>

Report attributes				
Default view		**Mandatory columns**	**Selectable columns**	
		▪ Group level name Or ▪ Subscribers/Billing Entity, Version and Label	▪ Recurring charges ▪ One-off charges ▪ Usage charges	▪ Credits ▪ Tax ▪ Total (excl. tax) ▪ Total (incl. tax)
Viewable columns – mandatory columns in **bold**, deselected columns in (brackets).				
Report summary level	Group level	▪ **Group level name** ▪ Subscriber (count) ▪ Recurring charges	▪ One-off charges ▪ Usage charges ▪ Credits	▪ Tax ▪ Total (excl. tax) ▪ Total (incl. tax)
	Subscr. Level	▪ **Subscriber/Billing entity** ▪ (Version) ▪ Label	▪ Recurring charges ▪ One-off charges ▪ Usage charges ▪ Credits	▪ Tax ▪ Total (excl. tax) ▪ Total (incl. tax
Report detail level		▪ Subscriber ▪ (Version) ▪ Label ▪ Charge description	▪ Charge start date ▪ Charge end date ▪ Charge amount ▪ Original amount	▪ Tax rate ▪ Tax description ▪ Quantity ▪ Unit price

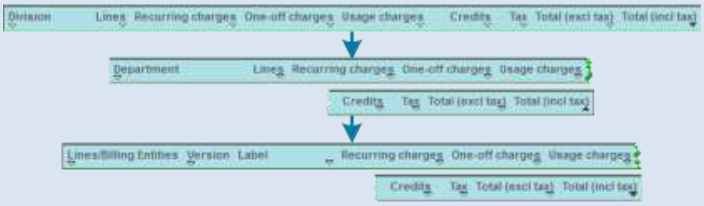
C.3.2 Fixed cost report definition

The *Fixed cost report* summarises recurring and one-off charges.

Figure 119: Fixed cost report sample

Table 31: Fixed cost report attributes

Report attributes	
Description:	Summary of Recurring and Non-Recurring charges for a customer
Constraints:	Available only to *Service-provider*s using six Charge-categ*ories*.
Variations:	**Unavailable report functionality:** ▪ *Cost adjustment arrows*; ▪ Charts; ▪ *Report overview Observations*
Report basis:	*Charge detail records*

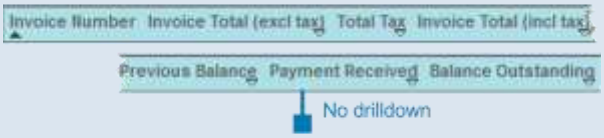
<table>
<tr><th colspan="5">Report attributes</th></tr>
<tr><td colspan="2">Sequence:</td><td colspan="3">Cost – descending.</td></tr>
<tr><td colspan="2" rowspan="2">Filters:</td><td colspan="2">Fixed:</td><td>Selectable:</td></tr>
<tr><td colspan="2">Showing data for [<code>selected level</code>]</td><td>▪ Multiplay service;
▪ Show zero entries,
▪ One-line-per.</td></tr>
<tr><td colspan="2" rowspan="2">Functionality:</td><td></td><td colspan="2">Drill-down directly to Report results summary level for the selected Cost range.
</td></tr>
<tr><td></td><td colspan="2">Drill-down the Organisational structure from your starting level to Subscriber-level and then to Report results summary level for the selected Cost range..
</td></tr>
<tr><td colspan="5">Viewable columns – mandatory columns in bold, deselected columns in (brackets).</td></tr>
<tr><td rowspan="2">Report summary level</td><td>Group level</td><td>▪ Group level name
▪ Subscribers(count)</td><td>▪ Total Recurring
▪ Total One-Off</td><td></td></tr>
<tr><td>Subscr. Level</td><td>▪ Subscriber/Billing entity
▪ (Version)</td><td>▪ Label
▪ Total Recurring
▪ Total One-Off</td><td>f</td></tr>
<tr><td colspan="2">Report detail level</td><td>▪ Subscriber
▪ (Version)
▪ Label
▪ Charge description</td><td>▪ Charge start date
▪ Charge end date
▪ Charge amount
▪ Original amount</td><td>▪ Tax rate
▪ Tax description
▪ Quantity
▪ Unit price</td></tr>
</table>

C.3.3 **Invoice** summary report definition

The *Invoice Summary* report allows you to view all invoices loaded, with their associated Invoice Totals (excl. VAT), Total VAT, Invoice Total (incl. VAT), Previous Balance, Payments Received and Balance Outstanding.

Figure 120: Invoice summary report sample

Table 32: Invoice summary report attributes

Report attributes		
Description:	The invoice details report shows a summary line per loaded invoice at the top-level, drilling down to display a line per *Subscriber* for the selected invoice.	
Constraints:	Available only to Administrator and Top-level users on the *Default* or *Billing-defined structures*: ▪ Works only for *service-provider*s using six Charge-categ*ories*. ▪ {Configurable} For *Service-provider*s using twelve Charge-categ*ories*: Removing the *Select detail* against the invoice disassociates the Charge-categories allowing a one line per invoice summary to be shown. ▪ The report is not Organisational Structure aware. All the invoices for the current billing-period and *Organisational structure* position are displayed.	
Variations:	**Unavailable report functionality:** ▪ *Report filters (all)*; ▪ *Select group* drill-down; ▪ *Cost adjustment arrows*; ▪ Charts; ▪ *Report overview Observations*; ▪ *Report detail level*	
Report basis:	*Invoices*	
Sequence:	*Invoice number* – ascending.	
Filters:	Not available	
Functionality:	Drill-down directly to list of subscribers in the invoice. level.  Not available	
Viewable columns – mandatory columns in **bold**, deselected columns in (brackets).		
Report summary level	Top level	▪ **Invoice Number** ▪ Invoice Total (excl. tax) ▪ Total Tax ▪ Invoice Total (incl. tax) ▪ Previous Balance ▪ Payment Received ▪ Balance Outstanding
	Subscr. Level	▪ **Subscriber/Billing entity** ▪ Label ▪ Recurring Charges ▪ Usage Charges ▪ Invoice Total (excl. tax)
Report detail level	Not available	

C.3.4 Subscriber summary report definition

The *Subscriber summary* report summarises invoice-related charges by subscriber.

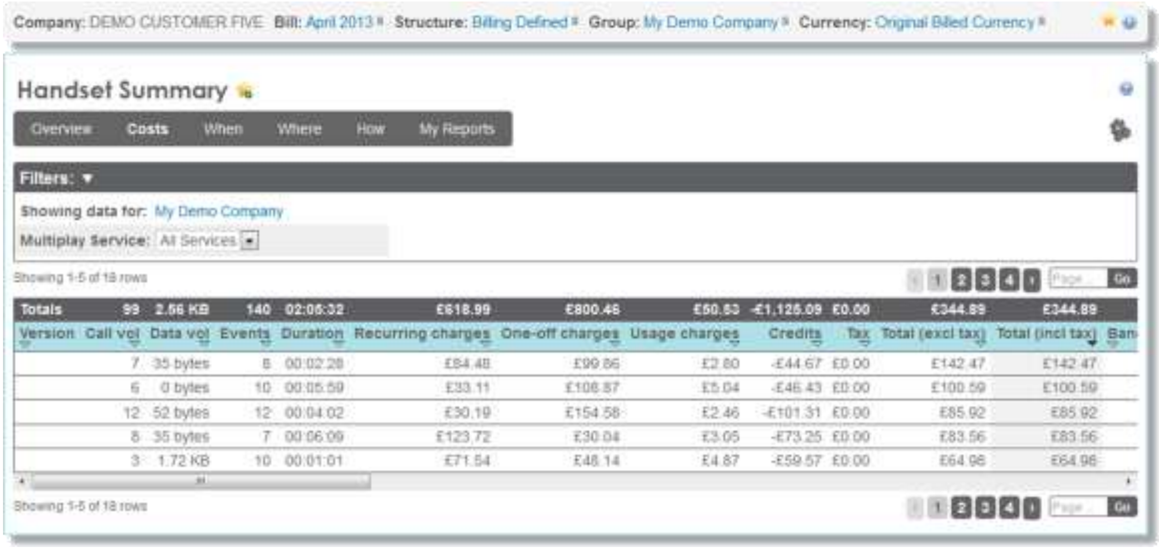
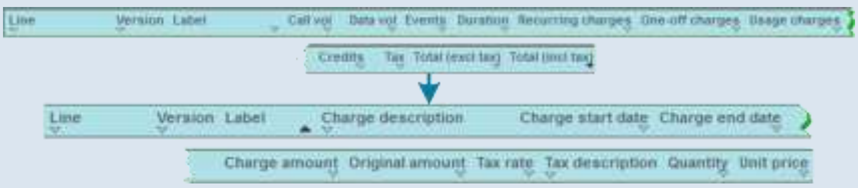


Figure 121: Cost allocation report sample

Table 33: Subscriber summary report definition

<table>
<tr><th colspan="4">Report attributes</th></tr>
<tr><td colspan="2">Description:</td><td colspan="2">Summary of invoice related charges against each Subscriber</td></tr>
<tr><td colspan="2">Constraints:</td><td colspan="2">Unavailable for
▪ Subscriber users;
▪ Service-providers using six Charge-categories.</td></tr>
<tr><td colspan="2">Variations:</td><td colspan="2">{Configurable} Billing entities are not shown {Show billing entities: OFF; On}.
Unavailable report functionality:
▪ Cost adjustment arrows;
▪ Charts;
▪ One line per filter - at top-level;
▪ Zero entries filter - at top-level.</td></tr>
<tr><td colspan="2">Report basis:</td><td colspan="2">Charge detail records</td></tr>
<tr><td colspan="2">Sequence:</td><td colspan="2">Charge total - descending.</td></tr>
<tr><td colspan="2" rowspan="2">Filters:</td><td>Fixed:</td><td>Selectable:</td></tr>
<tr><td>Showing data for [<code>selected level</code>]</td><td>▪ Multiplay service;
▪ Show zero entries,
▪ One-line-per.</td></tr>
<tr><td colspan="2" rowspan="2">Functionality:</td><td colspan="2">Drill-down directly to Report results summary level.

</td></tr>
<tr><td colspan="2">Not available</td></tr>
<tr><td colspan="4">Viewable columns – mandatory columns in bold, deselected columns in (brackets).</td></tr>
<tr><td>Report summary level</td><td>Top level</td><td colspan="2">▪ Subscriber
▪ {Version)
▪ Label
▪ Events
▪ Duration
▪ Recurring charges
▪ Credits
▪ Tax
▪ Total (excl. tax)</td></tr>
</table>

		▪ Call vol ▪ Data vol	▪ One-off charges ▪ Usage charges	▪ Total (incl. tax)
	Group level	Not available		
	Subscr. Level	Not available		
Report detail level		▪ Subscriber ▪ (Version) ▪ Label ▪ Charge description	▪ Charge start date ▪ Charge end date ▪ Charge amount ▪ Original amount	▪ Tax rate ▪ Tax description ▪ Quantity ▪ Unit price

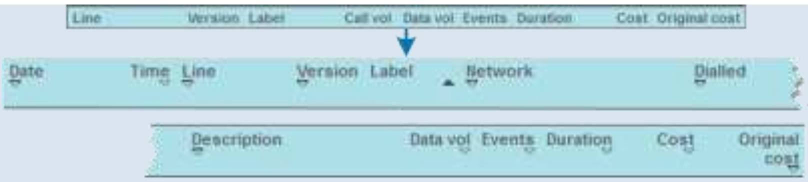
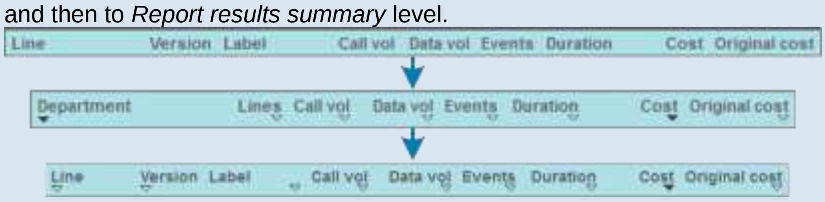
C.3.5 Usage report definition

The *Usage* report summarises usage volumes and costs at each level of the selected *Organisational structure*.

Figure 122: Usage report sample

Table 34: Usage report definition

Report attributes		
Description:	Shows usage against Organisational structure for the *Current analysis context.*	
Constraints:	None specified – viewable using any *Organisational structure* assigned to the user.	
Variations:	**Unavailable report functionality:** ▪ Multiplay service filter; ▪ *Charts*; ▪ *Report overview observations*.	
Report basis:	*Usage detail records*	
Sequence:	*Cost* – descending.	
Filters:	**Fixed:**	**Selectable:**
	Showing data for [selected level]	▪ One line per ▪ Zero entries
Functionality:	Drill-down directly to *Report results summary* level.	

<table>
<tr><th colspan="5">Report attributes</th></tr>
<tr><td rowspan="2" colspan="2"></td><td></td><td colspan="2">
</td></tr>
<tr><td></td><td colspan="2">Drill-down the Organisational structure from your starting level to Subscriber-level and then to Report results summary level.

</td></tr>
<tr><td colspan="5">Viewable columns – mandatory columns in bold, deselected columns in (brackets).</td></tr>
<tr><td rowspan="2">Report summary level</td><td>Group level</td><td>▪ Tier name
▪ Subscribers
▪ Call vol</td><td>▪ Data vol
▪ Events
▪ Duration</td><td>▪ Cost
▪ Original cost</td></tr>
<tr><td>Subscr. Level</td><td>▪ Subscriber
▪ (Version)
▪ Label</td><td>▪ Call vol
▪ Data vol
▪ Events</td><td>▪ Duration
▪ Cost
▪ Original cost</td></tr>
<tr><td colspan="2">Report detail level</td><td>▪ Date
▪ Time
▪ Subscriber
▪ (Version)
▪ Label</td><td>▪ Network
▪ Dialled
▪ Description
▪ Data vol</td><td>▪ Events
▪ Duration
▪ Cost
▪ Original cost</td></tr>
</table>

Appendix D Phone book upload failures

If any of these errors are detected, they are reported in the log file and the file upload will fail:

- Dialled Number empty
- Tagging from file with no personal or business flag
- Description exceeds 30 characters
- Dialled number exceeds 20 characters
- Incorrect character in the tagging field(standard is 0&1 or left blank)

You must correct the issues and re-import.

A maximum error limit of 200 is set, after which failures are no longer reported

The following information is displayed to assist you in fixing the file:

```
<List of errors>
Dialled digits is too long on the following rows:
10, 16, 17
Dialled description is too long on the following rows:
10, 16, 17,
<List of warnings>
Duplicate entries found on row(s):
5, 25
```

There is no interaction with external (for example, Outlook) address books.

Appendix E Subscriber upload failures

If the file is missing information such as *email address*, or a subscriber is duplicated, the file is rejected and must be fixed before it can be imported.

You will not be able to import the file again until the first import has completed.

- Once the import has started, a message is displayed informing you the import has started

```
Your upload has been submitted. Depending on the size of your upload, this
could take a while. Please check the status on the user tab where you can
view the upload results when it has been processed
```

- While the file is being processed a further message is shown on the page

```
There is currently a CSV file of user information being processed against
your account. You will not be able to upload a file until this has completed
```

- If you try to regenerate the import during this time an error message is displayed

```
There is currently a CSV file of user information being processed against
your account. Please try again later
```

Appendix F Glossary of terms

A7 terms and terminology

Account:
A management unit used to collect subscribers into meaningful units.

Organisational level:
A management unit within the billing structure defined by the service-provider and used to collect related accounts into meaningful groups.

Service:
The entity used by subscribers for which usage charges and other costs are incurred

Service-provider:
The organisation providing the service being consumed and billed.

Structure position:
Refers to either a group or a subscriber node within an organisational structure..

Subscriber
A person, device or mechanism accessing and using the service and incurring usage charges.

Subscriber-transaction:
A single instance of service use by a subscriber.

User:
A subscriber, customer or service-provider representative with assigned A7 Sign-in credentials and access to the A7 application.

[Inside back cover page]

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