Hierarchy Management User Guide

Forsta Plus v2022

This is revision 1 of the Forsta Plus v2022 Hierarchy Management User Guide published in January 2022. The information herein describes Forsta Plus Hierarchy Management and its features as of Build nr. 2022.1.129. New features may be introduced into the product after this date. Go to www.forsta.com or check “News” on the Customer Extranet for the latest updates.

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What's New in this Revision?

The following changes have been made in this revision:

- The manual is updated with new logo, company and product names. Note that images will be updated at a later date, and URLs, folder names etc. will be corrected as the changes become applicable.

Note: The general layout and language in this document is continually being corrected, adjusted and improved to ensure the user has the best possible source of information. Only NEW information and details of functionality that has changed since the previous issue are listed here - minor corrections to the text and document layout are not listed.

Important
We need your feedback so we can improve this document and provide you with the information you require. If you have any comments or constructive criticism concerning the content or layout of this documentation, please send an email to documentation@forsta.com. Please include in your email the section number and/or heading text of the section to which your comment applies.

1. Introduction

The Forsta Plus Hierarchy Management module provides an easy-to-use interface for building, verifying, updating, and maintaining hierarchies so your Voice of Customer, Voice of Employee, and/or Market Research programs can produce the highest quality results. This document is intended for the Hierarchy Administrator - the person who creates and maintains the hierarchies that will be used by the End User in their surveys and reports. This is a complete set of information that covers all the functionality available in the module. Note that a separate user guide is available for the End User.

1.1. General Description

A hierarchy is an arrangement of items (objects, names, values, categories, etc.) in which the items are represented as being "above", "below," or "at the same level as" one another. Each item can have zero or more subordinates ("children"), and zero or one immediate superior ("parent"). For example, members of an organization could be ranked according to relative status or authority. Most governments, corporations and organizations are hierarchical.

Hierarchies are used in Forsta Forsta Plus for example when running employee satisfaction surveys, to define the structure of the organization. This allows employees to be grouped into the correct departments under the correct managers, and this in turn allows the appropriate permissions to be allocated so that the employees have access to information relevant to their positions within the organization when the results are reported.

Each "location" in the hierarchy, in this case each position in the company, is termed a "Node", with the lowest level - those with no-one reporting to them, being termed "Leaf" nodes to indicate their positions at the ends of the branches - see the figure below.

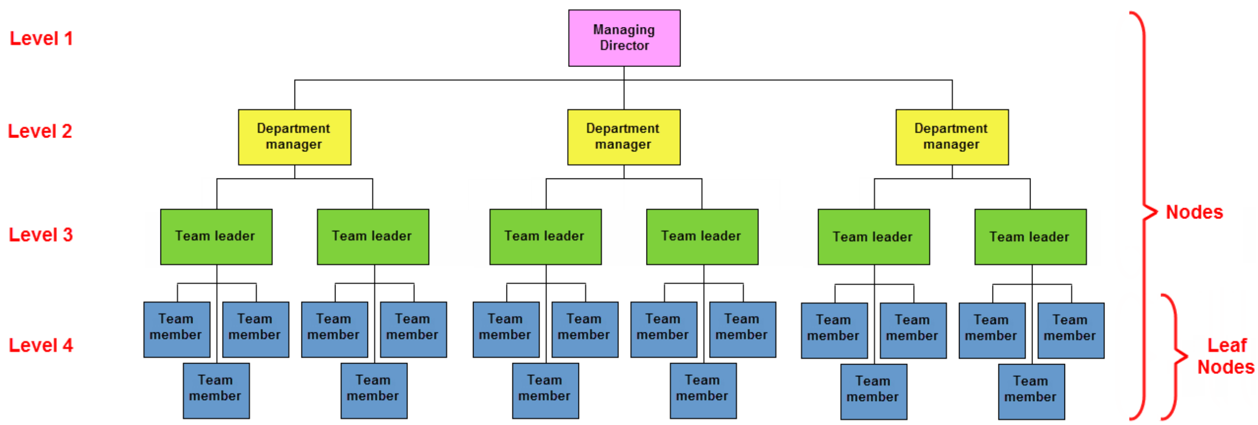

Figure 1 Hierarchy example

The Forsta Hierarchy Management functionality allows you to define your hierarchies by importing Excel®[1] spreadsheets, which may for example be based on output from a Human Resource Information System (HRIS). The hierarchy can then be edited further within Forsta Plus. Or you can export a definition file from Forsta Plus to Excel, edit the file and then re-import. Forsta Plus supports up to 15 levels in a hierarchy.

1.2. Hierarchy Management System Requirements

System requirements for the Hierarchy Management application are presented in the System Requirements document that is available from the Forsta extranet at https://extranet.confirmit.com. Log in, go to the **Membership Center > Resources** page, and filter Types for System Requirements.

[1]The word Excel®, as used in the Forsta Plus GUI, is a registered trademark of the Microsoft Corporation.

1.3. Hierarchy Management vs Database Designer

Forsta Plus also has capabilities for designing hierarchies within the “Database Designer” module in Professional Authoring, which precedes the Hierarchy Management module. These modules share the same back-end, so hierarchies can be used very much in the same way regardless of which of the modules it has been set up in: You can use the hierarchy definition in a “hierarchy” question in a survey, either as a background variable or as a visible, normal question, and it can be reported on and also used as a personalized report filter so that you can set up role-based access to the reports for end users. In addition to providing a very different user experience, there are some key functional differences between the two:

- In the Hierarchy Management module, any change to the hierarchy definition is instantly live in any surveys or reports using the hierarchy. In the Database Designer module you make edits in a “Design” mode, and have to synchronize these changes to “Runtime” for them to update in surveys and reports.
- The Hierarchy Management module provides an interface for assigning contacts to hierarchy units. This capability is not available in the Database Designer module.
- The Hierarchy Management module supports giving end users (business users) access to edit the hierarchy definition. The Database Designer module is only available for Professional Users.
- The Database Designer module supports hierarchy definitions with node labels in multiple languages. Hierarchy Management supports one language only (English).

Hierarchies set up in Hierarchy Management cannot be opened in Database Designer, and vice versa. It is however possible to export a hierarchy definition from one and import it into the other.

1.4. Importing Hierarchy Definitions

A hierarchy definition is an Excel™ file containing a table that defines the hierarchy layout. The column headers are predefined in the system, and if the headers are used then they must be as shown in the table below.

When uploading to hierarchy management, the Excel™ file can contain hierarchy definition and contacts data (for example for employees), or just the hierarchy definition. And for the hierarchy definition, it is possible to upload with the relations between nodes on different levels specified in two different ways: Either in “parent-child” format, where a node id and node label is provided along with the id of the parent node (or empty if the node is at the root level), or in “full path” format, where the node’s position in the hierarchy is provided by listing the full path from the top of the hierarchy through the different levels to the specific node. For the “full path” format, it is possible to upload a file either with or without node id columns. So in total, six types of uploads are supported:

1. Upload of “full path” hierarchy definition with external node ids and labels.

   The file includes columns for node IDs and node labels. If these columns contain data then the data will be included in the appropriate levels in the hierarchy automatically. The table below shows the definition for a very simple 2-level hierarchy. In this case the top level (L1:) is the “company” Mega Sales, and this company has two departments in the second level (L2:); Finance and Marketing.

	A	B	C	D	E	F
1	Node ID	Node Label	L1:	L2:		
2	MEGA	Mega Sales	Mega Sales			
3	FIN	Finance	Mega Sales	Finance		
4	MAR	Marketing	Mega Sales	Marketing		
5						

Figure 2 Example of a simple hierarchy definition with Node IDs and labels

The company hierarchy based on this definition will be as shown below:

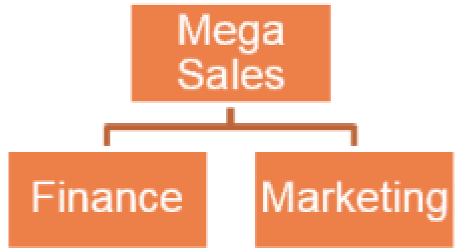

Figure 3 A simple company hierarchy with node IDs and labels

This type of definition has the advantage that it is easily updated. Note that each level in the company requires its own “L” column (in addition to the Node ID and Node Label columns), so a company with four levels in the hierarchy will require columns L1, L2, L3 and L4.

2. Upload of “full path” hierarchy definition without external node ids.

   If node IDs are not provided in the hierarchy definition then on upload the system will automatically generate node IDs for each node. These will merely be numbered sequentially starting from 1.

3. Upload of “full path” hierarchy definition with external node ids and with contacts assigned to the hierarchy. Note that this requires that a contact database is set up in SmartHub and linked to the hierarchy. If the contact database includes employee data then the resulting definition could be as below:

	A	B	C	D	E	F	G	H
1	Node ID	Node Label	L1:	L2:	contactid	email	Name	Gender
2	MEGA	Mega Sales	Mega Sales		1440	documentation1@confirmit.con	Adam Avian	1
3	MEGA	Mega Sales	Mega Sales		1441	documentation2@confirmit.con	Belinda Brant	2
4	FIN	Finance	Mega Sales	Finance	1442	documentation3@confirmit.con	Charles Chaffinch	1
5	FIN	Finance	Mega Sales	Finance	1443	documentation4@confirmit.con	David Dunlin	1
6	FIN	Finance	Mega Sales	Finance	1444	documentation5@confirmit.con	Ellen Eagle	2
7	MAR	Marketing	Mega Sales	Marketing	1445	documentation6@confirmit.con	Fred Fulmar	1
8	MAR	Marketing	Mega Sales	Marketing	1446	documentation7@confirmit.con	Gareth Gadwall	1
9	MAR	Marketing	Mega Sales	Marketing	1447	documentation8@confirmit.con	Helen Hawk	2
10	MAR	Marketing	Mega Sales	Marketing	1448	documentation9@confirmit.con	Ian Ivorybill	1
11								
12								

Figure 4 Example of a hierarchy definition with contacts

Each employee in the company will require his/her own row in the table. In this case two people are assigned to the top Mega Sales node, three are assigned to the second-level Finance node, and four are assigned to the second-level Marketing node. You can view which employees are assigned to each hierarchy node, and you can add and delete employees and move them between nodes as required due to for example promotions, hirings and resignations (go to Editing the Hierarchy on page 19 for more information). Note that the contactids must be unique for the hierarchy.

4. Upload of “full path” hierarchy definition without external node ids and with contacts assigned to the hierarchy. In this case node ids will be generated automatically, and a contact database must be set up and linked to the hierarchy.

5. Upload of “parent-child” hierarchy definition. In a “parent-child” hierarchy definition the Excel file to upload must have one column for the node id, one for the node label and one for the parent id. Column headers should be “Node id”, “Node label” and “Parent id”, or, for backwards compatibility with Database Designer, they can also be labeled “id”, “__l9”, “parent”.

	A	B	C
1	Node ID	Node Label	parent ID
2	MEGA	Mega Sales	
3	FIN	Finance	MEGA
4	NAR	Marketing	MEGA
5			

Figure 5 Example of the parent-child upload

6. Upload of “parent-child” hierarchy definition with contacts assigned to the hierarchy. For this, a contact database must be set up and linked to the hierarchy.

	A	B	C	D	E	F	G
1	Node ID	Node Label	Parent ID	contactic	email	Name	Gender
2	MEGA	Mega Sales		1440	documentation1@confirmit.com	Adam Avia	1
3	MEGA	Mega Sales		1441	documentation2@confirmit.com	Belinda Br	2
4	FIN	Finance	MEGA	1442	documentation3@confirmit.com	Charles Cl	1
5	FIN	Finance	MEGA	1443	documentation4@confirmit.com	David Dun	1
6	FIN	Finance	MEGA	1444	documentation5@confirmit.com	Ellen Eagle	2
7	MAR	Marketing	MEGA	1445	documentation6@confirmit.com	Fred Fulm	1
8	MAR	Marketing	MEGA	1446	documentation7@confirmit.com	Gareth Ga	1
9	MAR	Marketing	MEGA	1447	documentation8@confirmit.com	Helen Haw	2
10	MAR	Marketing	MEGA	1448	documentation9@confirmit.com	Ian Ivorybi	1

Figure 6 Example of a parent-child upload with contacts

Note: The hierarchy management module supports uploading of up to 15 levels in the hierarchy. This means that you can have in total 15 level columns in a “full path” import, with L1:, L2:, …, L15: as the column headers.

1.5. The Hierarchy List

When you go to the Hierarchy Management item in the Forsta Plus Homepage or the Global Navigation overlay (go to The Global Navigation Icon on page 5 for more information), the Hierarchy List page opens. This page lists all the hierarchies that you have access to.

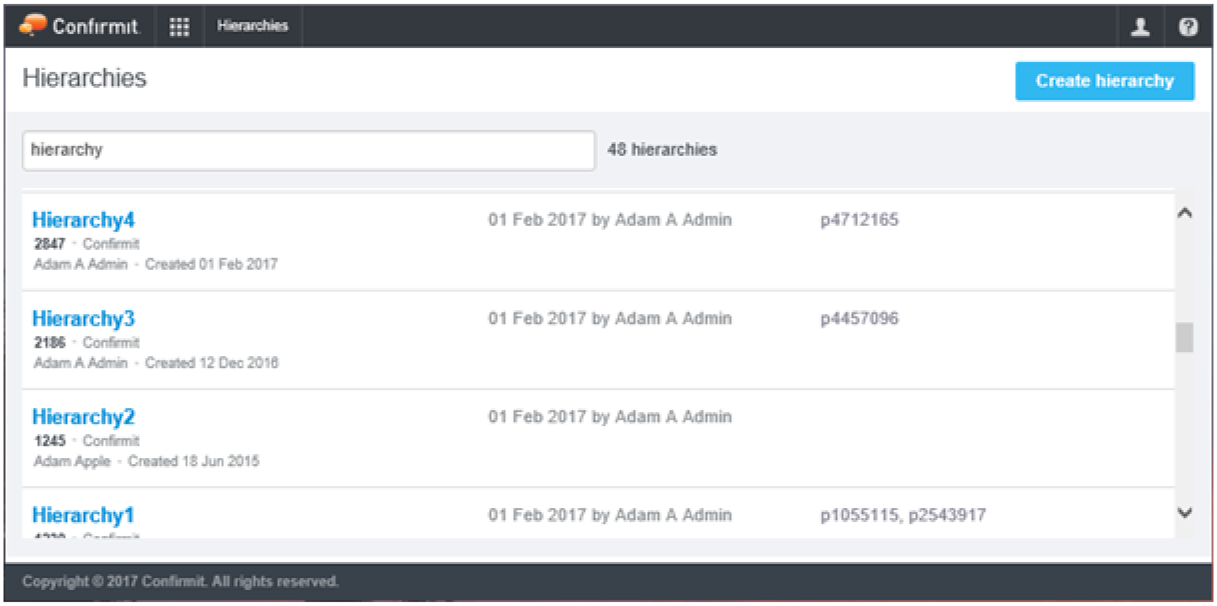

Figure 7 Example of the Hierarchy List

The total number of hierarchies available to you is given beside the Search field. The list is sorted descending by last modified, so the most recently updated hierarchy will be at the top. For each hierarchy, the list shows the hierarchy name (blue text), the Id number (black text below the name), the user who created it, the date it was created and the date it was last modified. In addition, launched surveys and contact databases that use that hierarchy are given in the Used In column.

In the event your list of hierarchies is extensive, you can search for the desired hierarchy. Type characters into the Search box; the list is immediately filtered such that only those hierarchies containing the character string you have typed are listed. The search facility will look through the hierarchy names, the users' first names, last names and user ID using the "contains" operator, and the hierarchy will be included in the list if any of its parameters contain the character string anywhere within it. You can also search for the hierarchy ID, but in this case only a full match will be found (a search for 123 will only return hierarchy 123, not hierarchy 1234 etc.).

1.6. The Global Navigation Icon

The Global Navigation icon to the left in the main toolbar is common to the majority of Forsta's applications. Click the icon to open a selection overlay providing access to all the other Forstaapplications which you are licensed to use. If you are logged in to a Forsta Plus application and you wish to change to a different application, click the icon and click the appropriate icon. Note that if you are not licensed to use an application, its icon will not be displayed in the overlay.

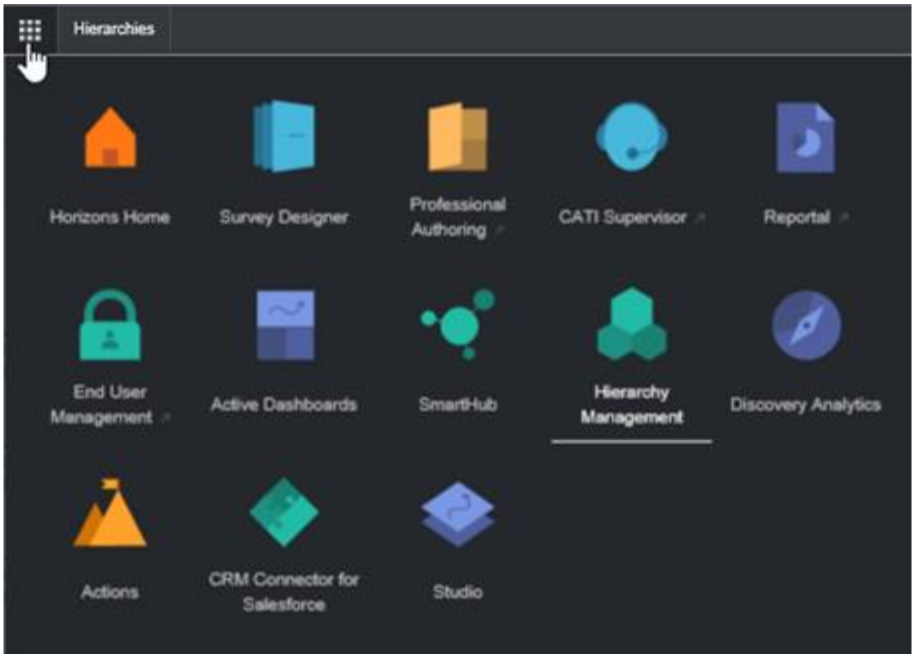

Figure 8 The application selection overlay

Icons with an “arrow” icon  open Authoring or Reportal, icons without the arrow take you directly to the selected application. Refer to the separate user guides for further information on these applications.

The **Hierarchies** button beside the Global Navigation icon is always available while you are in Hierarchy Management, and returns you directly to the Hierarchies list (go to The Hierarchy List on page 4 for more information).

1.7. The Forsta Plus Homepage

The Forsta Plus Homepage is common to the majority of Forsta's applications. When you first log in to Forsta Plus this page opens, and it provides access to all the Forsta Plus applications that you are licensed to use - click the appropriate icon to go to that application. Note that if you are not licensed to use an application, its icon will not be displayed in the page.

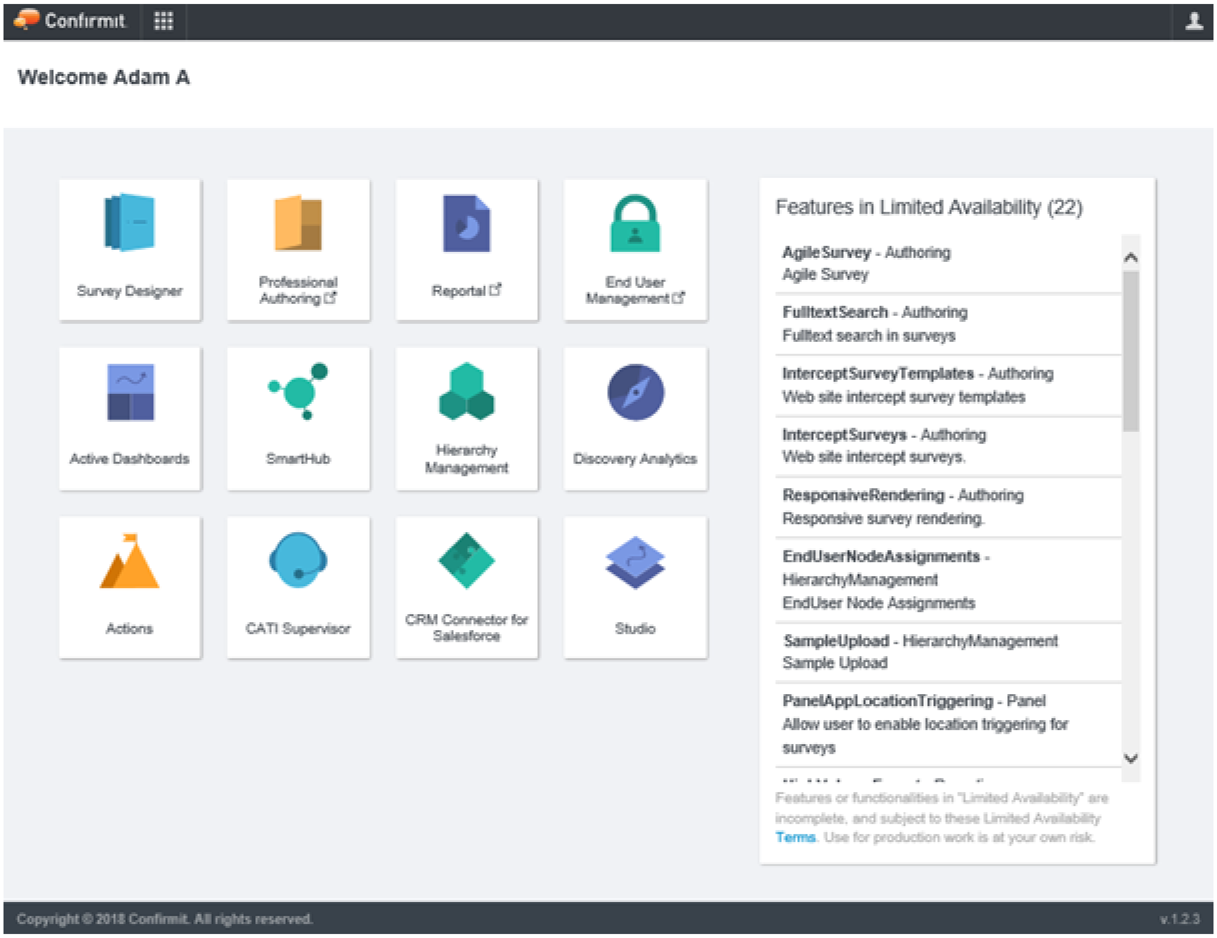

Figure 9 Example of the Forsta Plus Homepage

Note: Applications that do not yet have a Global Navigation icon have beside the application name. These will open in a new window, allowing this Homepage to remain open while you are working in the selected application.

A list of new features and functionality currently accessible to you under "Limited availability" is presented on the right side of the Homepage. These items are still undergoing development, but are made available for testing purposes if your company has agreed to trial them. Please note that use of this new functionality for production work is at your own risk.

2. Creating a Hierarchy

You create your hierarchies using the Forsta Plus Hierarchy Management functionality. To access this:

1. Open **Hierarchy Management**.

   The Hierarchies page opens. If you have no hierarchies available to you (you haven't created any yourself and no-one has given you permission to access theirs), then the Hierarchies page opens "empty" and you are invited to create one.

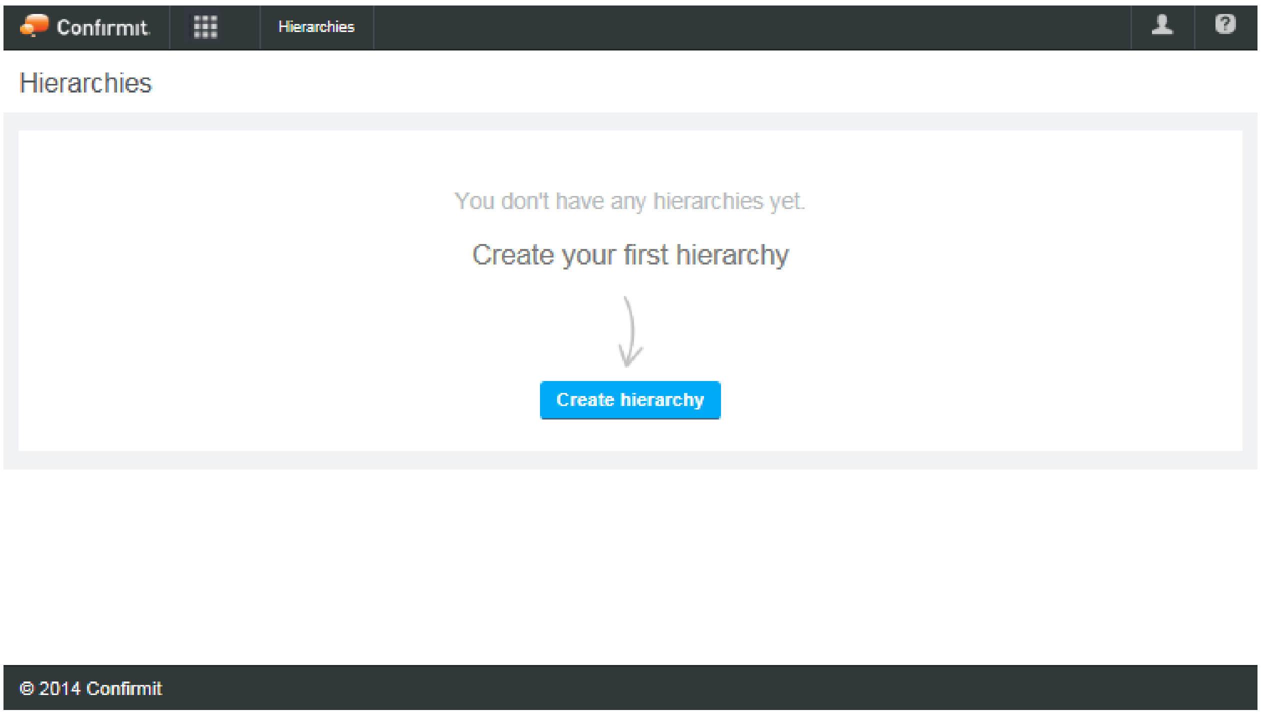

Figure 10 The empty Hierarchies page

   If you already have access to one or more hierarchies then the Hierarchies page opens with those hierarchies listed. Click on a hierarchy name in the list to open that hierarchy for editing (go to Editing the Hierarchy on page 19 for more information). In this case, as you wish to create a new hierarchy:

2. Click **Create hierarchy** and continue the procedure

   The Create hierarchy page opens.

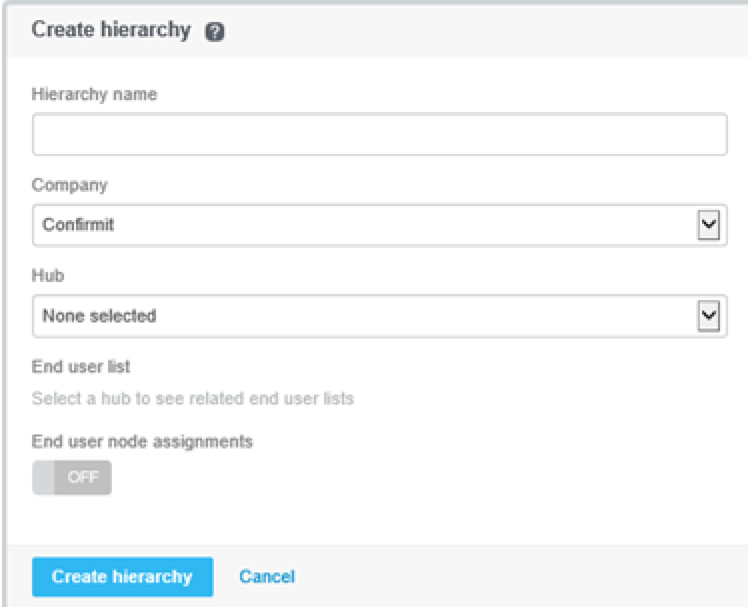

Figure 11 The Create hierarchy page

3. Type a name for your new hierarchy into the Hierarchy name field.
4. Select the hub you wish to use for the hierarchy.

Note: You do not have to select the hub at this point; you can wait until later in the procedure. In this case, when you want to select the hub, go to the cog-wheel icon and select Hierarchy properties, then select the desired hub in the Properties page. Bear in mind that once you have selected a hub and created the hierarchy, you cannot change the hub.

5. If you select a hub at this point, you can also select an End User list from the End User lists assigned to the selected hub.

Note: Later, you can see which hub is connected to the hierarchy by going to the cog-wheel icon and selecting Hierarchy Properties (go to The Hierarchy Settings on page 40 for more information).

6. On completion, click **Create Hierarchy**.

   Once the hierarchy is created you will be asked to import a definition (go to Importing a Hierarchy Definition on page 19 for more information).

3. Hierarchy Permissions

The Hierarchy Permissions functionality allows you to specify who can manage and edit the hierarchy and who can only view it. Here you can add users to the list from your company, remove users from the list, and allocate permissions to individual users or groups of users (go to Professional User Permissions on page 10 for more information). If your company has licensed the add-on, you can also allocate permissions to end users (go to End User Permissions on page 12 for more information).

The hierarchy designer (or another user who has been given Manage permission) can give Manage or View permission to other users. Click on **Permissions** in the Hierarchy toolbar to open a menu with two options: **Professional user permissions**, and **End user permissions**. Both Professional Users and End Users have two levels of permission:

- **Manage -** a user with Manage rights has full rights to edit the hierarchy and contacts. Professional Users with Manage permission can also give permissions to other users, upload hierarchy definitions and manage hierarchy settings. These are the same rights as the user who created the hierarchy has.
- **View -** a user with View rights can do only that - they can view the hierarchy but they cannot change anything.

Note: Any system administrator will have Manage permission for all hierarchies, but only those users who have explicitly been given access will be listed in the Permissions page.

3.1. Professional User Permissions

The owner (creator) of a hierarchy can allocate Manage or View permissions as appropriate to any Forsta Plus Professional Users registered with the owner's company. If you wish to share the hierarchy with End Users (users from another company), then you must first link an end user list to the hierarchy (go to How to Add End User Permissions to the Entire Hierarchy on page 13 for more information).

3.1.1. How to Add Users to the Permissions List

To add users from your own company to the Permissions list:

1. Go to the **Permissions > Professional user permissions** menu item.

   The Professional users page opens, listing all the users who currently have a permission.

   Note that there must be at least one professional user who has the Manage permission; if the last manager could change his/her permission to something else then no one would be allowed to make any changes. So the last user with Manage permission cannot be revoked or changed.

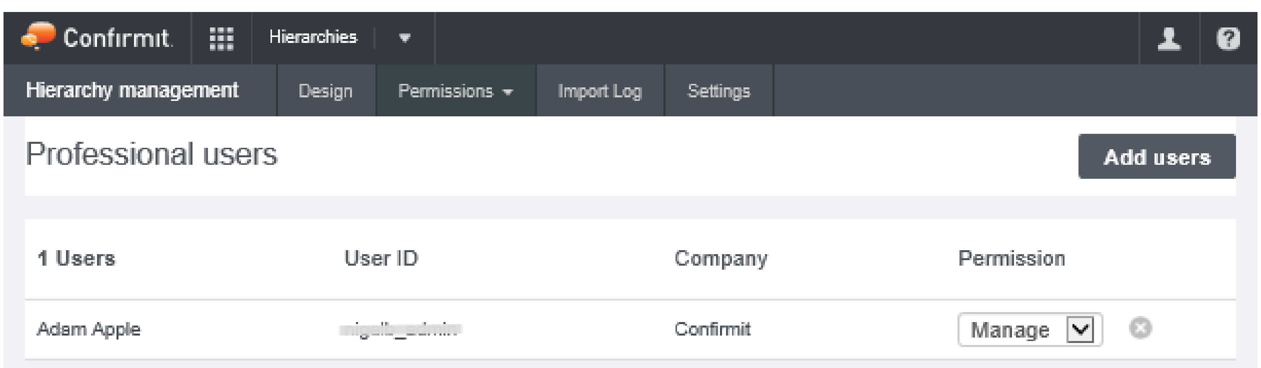

Figure 12 The Professional users permissions page for a hierarchy, with the minimum one manage permission

2. Click **Add users**.

   The Add users overlay appears.

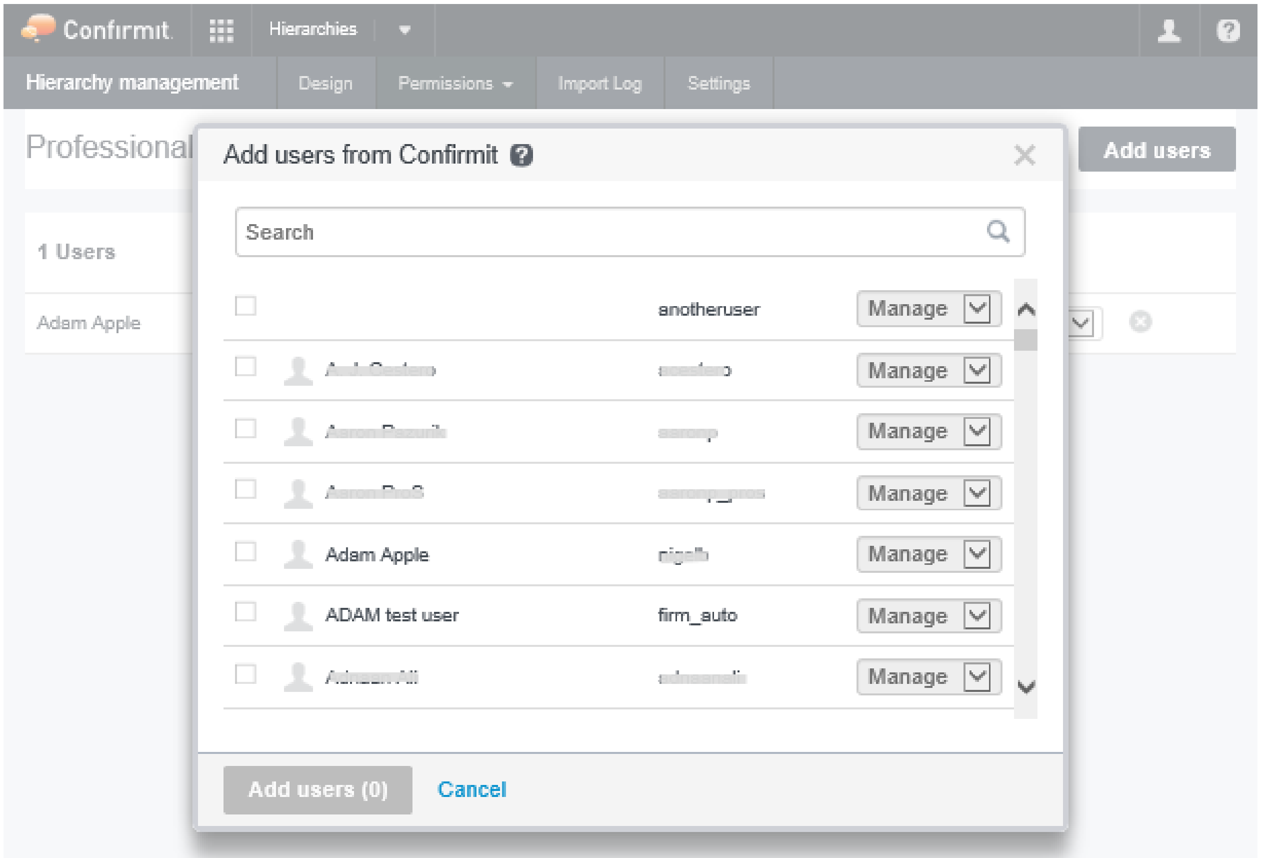

Figure 13 The Add users overlay

3. Check the boxes beside those users you wish to add to the permissions list for this hub.

   In the event the list is extensive you can type search criteria into the Search field. The list will be reduced as you type, to include only those users whose name includes the text string. Note that the search is not case-sensitive.

4. For each user you select, click the drop-down arrow in the right column to open the menu, and select the permission you wish to allocate to that user. Note that you can change the permission allocated at any time.

5. When you have selected the users you wish to add to the Permissions list, click **Add users**.

The selected users are added to the Permissions list.

3.1.2. How to Revoke Permissions for Professional Users

To revoke permission, click the **X** icon at the right of the row where the user is listed on the permission page. When revoking access permissions to hierarchies, different confirmation overlays will be displayed depending on whether you are revoking access for yourself or for others. To reduce the chances of mistakes, in all cases you will need to confirm the action.

Note that there must be a minimum of one professional user with Manage permission for a hierarchy; you cannot revoke access to a hierarchy for the "last man", otherwise no-one will have access. If another user has Manage permission then you can revoke access for yourself, but a warning is presented to ensure you intend to do this.

3.2. End User Permissions

The End Users functionality is an add-on intended to enable a hierarchy builder in one company to give edit access to the hierarchy to business users who do not have a Professional User for Forsta Plus. For example, a consultancy company could be engaged to create and manage a client company's hierarchy. As the client company employees will usually have a better overview of their own company, the consultancy company would give end user permissions to specific employees in the client company so they can make corrections to the hierarchy to keep it updated etc.

Two levels of permission can be allocated for end users:

- **Manage -** a user with Manage rights has rights to edit the hierarchy and contacts; add, move, edit and delete nodes, and move edit and delete contacts.
- **View -** a user with View rights can do only that - they can view the hierarchy but they cannot change anything.

End Users can be given manage or view access to the entire hierarchy (go to How to Add End User Permissions to the Entire Hierarchy on page 13 for more information), or they may be given manage or view access to specific nodes (go to How to Add End User Permissions to Specific Nodes on page 15 for more information). Node permissions include the specific node and all sub-nodes below it in the hierarchy, but not nodes above or other nodes on the same level.

3.2.1. End User Lists

If End User permissions are to be used, then the hierarchy must be associated with an End User List. Before you can make this association, you must first have (or create) the End User List - refer to the Authoring User Guide for details on creating an End User List.

Once an end user list is associated with the hierarchy, you can use the list for the following purpose:

1. You can give end users access to manage the hierarchy; for example a department manager could be given access to edit their area of the hierarchy.

When selecting an end user list, the lists available to you will be all those associated with the selected hub.

A connection to a hub is also optional and can be set later. Bear in mind that once a connection is made between a hub and the hierarchy, it is locked and cannot be changed. If a wrong connection is made then you will have to start again. Note that a hub is required for contact databases or end user assignments.

Note: Only one end user list can be linked to the hierarchy at one time. You can change the end user list for a hierarchy, but if you do so then you will lose all permissions that have been assigned using the first list.

Note: You cannot add more end users to the end user list via Hierarchy Management; you must go to the original end user list in Authoring to do this.

3.2.2. How to Link an End User List to the Hierarchy

To associate the End User List to the hierarchy, you must first link the End User List to the hub that the hierarchy is linked to. To link an End User List to a hub:

1. In Authoring, go to the **End Users > Lists** menu item.

   A list of the end user lists available to you opens.

2. Browse to and select the end user list you wish to link to the hierarchy.
3. On the General tab, type into the SmartHub Id field, the id of the hub that the hierarchy is linked to.

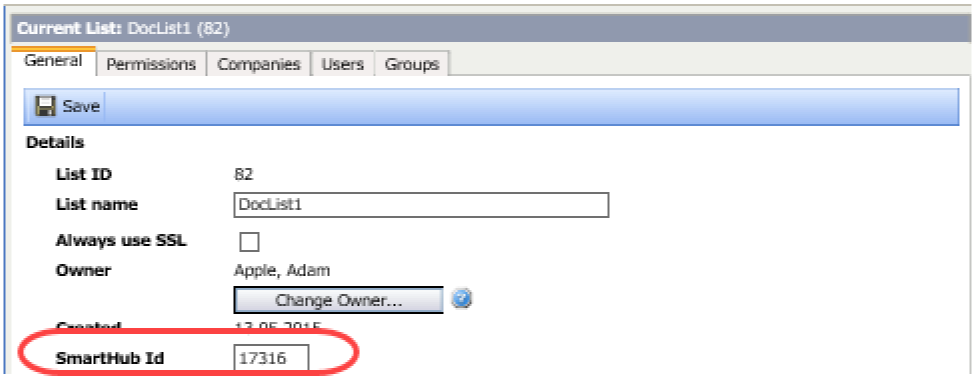

Figure 14 Setting the SmartHub Id to link the End User list to the hierarchy

4. Save the changes.

3.2.3. How to Add End User Permissions to the Entire Hierarchy

Once you have an end user list linked to the hierarchy (go to How to Link an End User List to the Hierarchy on page 12 for more information), to allocate end user permissions to the entire hierarchy:

1. Open the hierarchy, then go to the **Permissions > End user permissions** menu command.

   The End user list page opens, showing any end users who already have permissions. The name and ID number of the end user list in use is displayed at the top of the page.

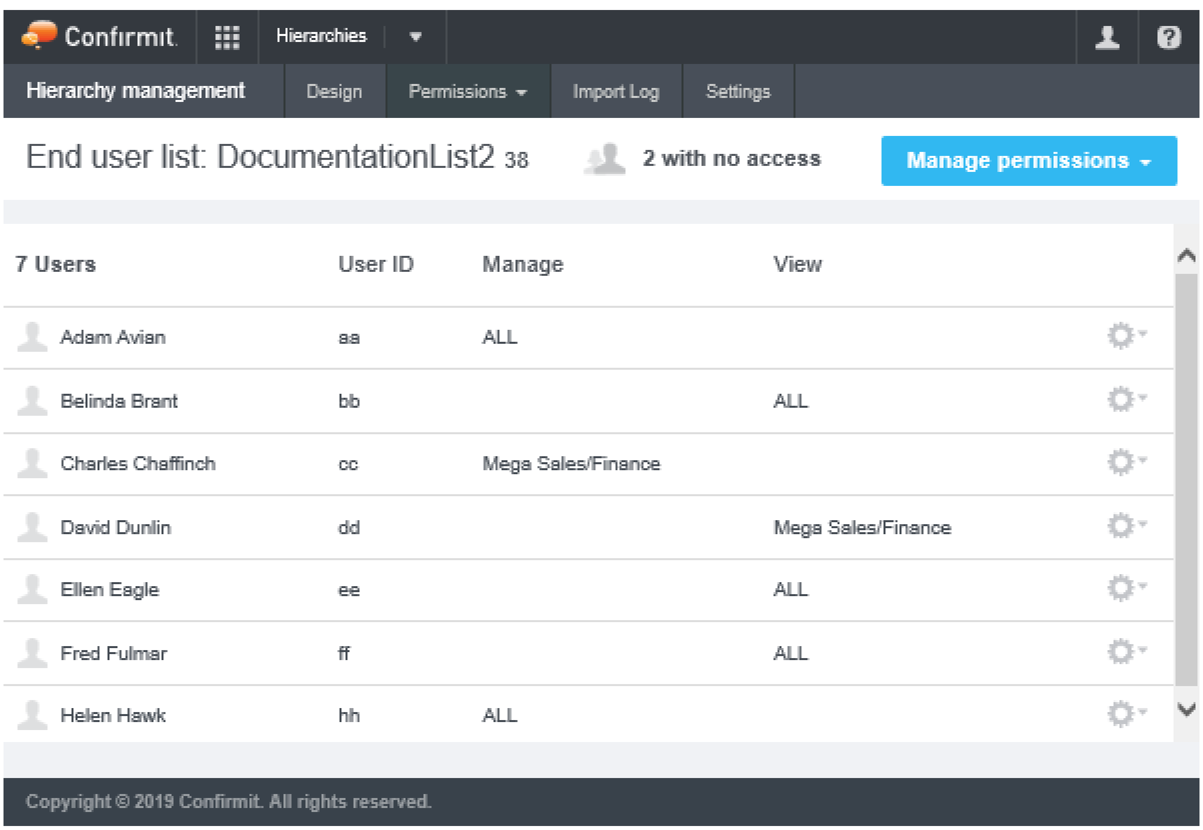

Figure 15 The End user list page showing some end users who have been allocated permissions

2. In the upper-right corner, click **Manage Permissions** and select **Add**.

   The Add Permissions for End Users overlay opens.

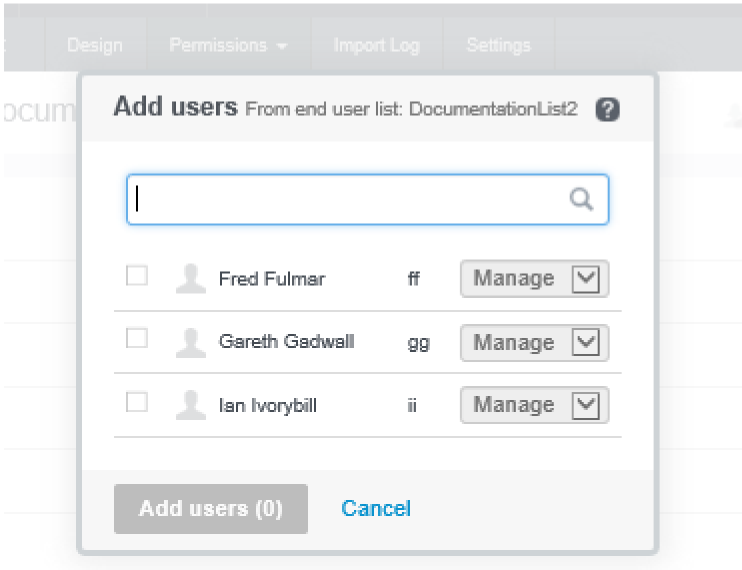

Figure 16 The Add Permissions for End Users overlay

3. Check the box beside the end user you wish to allocate a permission to, and select the desired permission from the drop-down list.

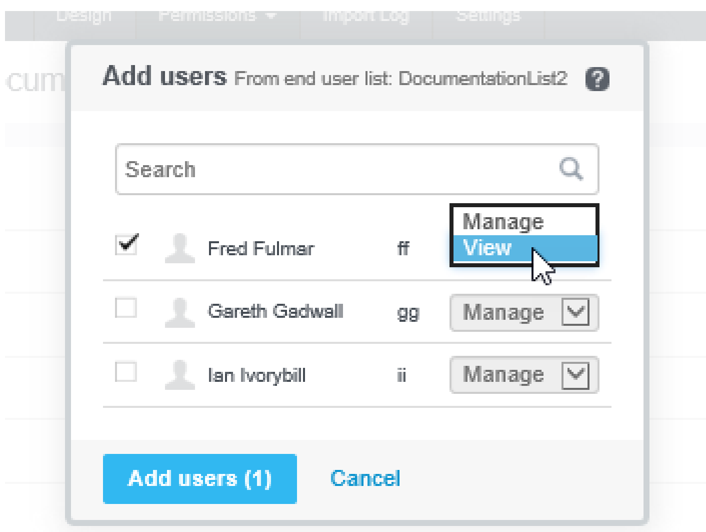

Figure 17 Setting the end user's permission level

4. Once you have selected and allocated permissions to the required end users, click **Add users**.

   The Add users overlay closes, and the selected end users are added to the list on the End user list page.

3.2.4. How to Change End User Permissions

Once an end user is on the list, you can change the access. To do this:

1. Click the cog-wheel icon for the end user you wish to change.

   A drop-down menu appears.

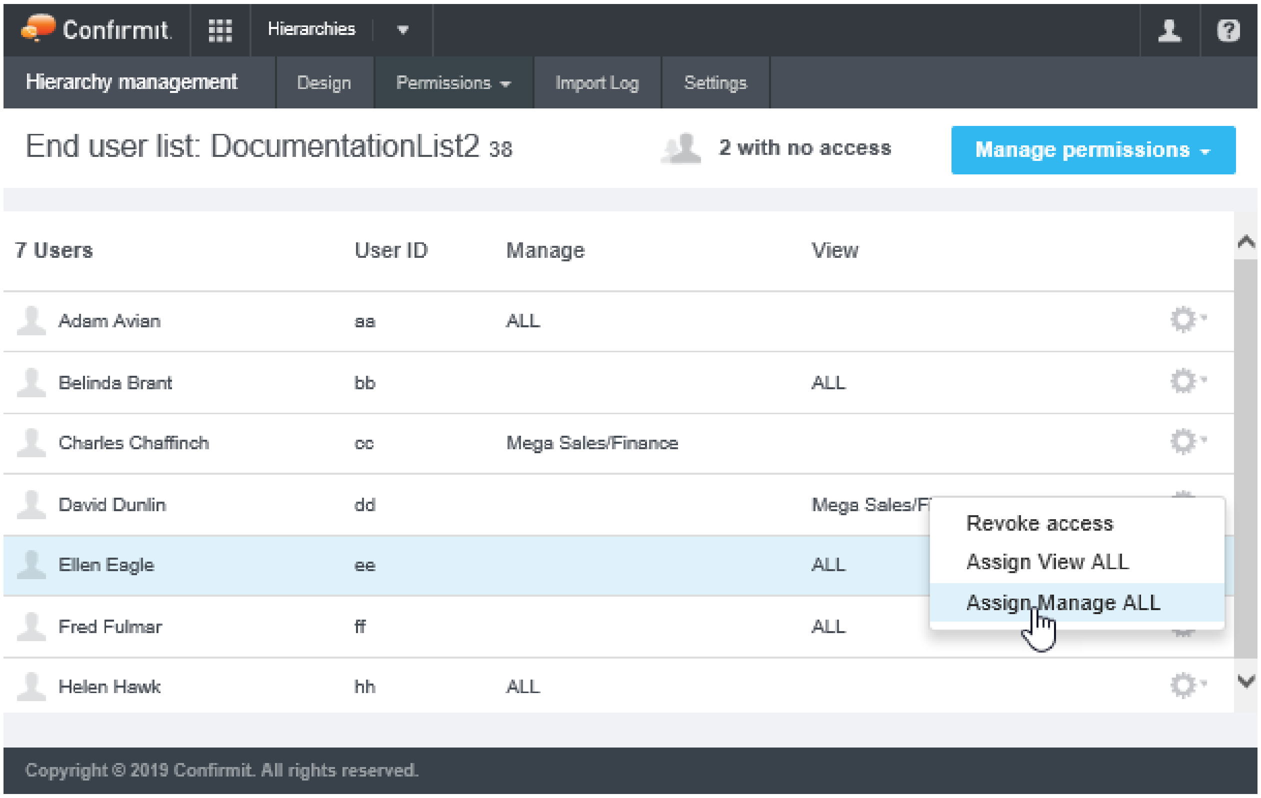

Figure 18 Changing an end user's permission

2. Select the desired permission level.

   The menu closes and the list is updated and saved.

3.2.5. How to Add End User Permissions to Specific Nodes

Once you have an end user list linked to the hierarchy (go to How to Link an End User List to the Hierarchy on page 12 for more information), to allocate end user permissions to specific nodes in the hierarchy:

1. Open the hierarchy, then go to the **Permissions > End user permissions** menu command.

   The End user list page opens, showing any end users who already have permissions. The name and ID number of the end user list in use is displayed at the top of the page.

2. In the upper-right corner, click **Manage Permissions** and select **Upload**.

   The Upload Excel®[2] File overlay opens.

[2]The word Excel®, as used in the Forsta Plus GUI, is a registered trademark of the Microsoft Corporation.

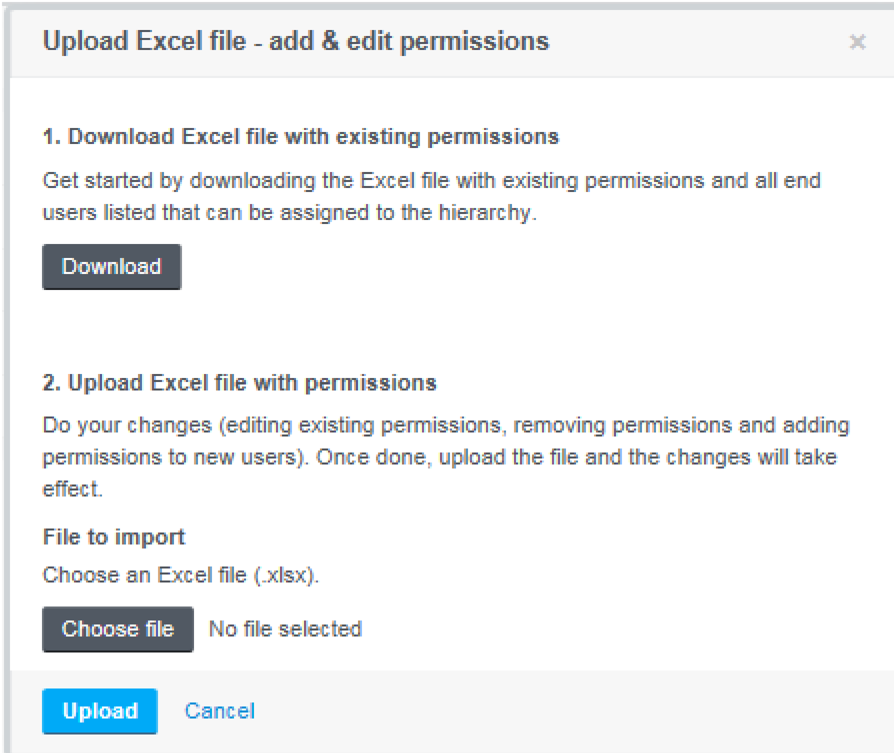

Figure 19 The Upload Excel File overlay

Start by downloading an Excel file to use as a template for the permission upload.

3. Click **Download**.

   A standard Save dialog appears across the bottom of the window.

4. Save the file as required, then open the spreadsheet that is delivered to the browser.

	A	B	C	D	E	F
1	Node ID	Node Label	L1:	L2:	Viewers	Managers
2			<Full access to hierarchy>		bb, ee, ff	aa, hh
3	MEGA	Mega Sales	Mega Sales			
4	FIN	Finance	Mega Sales	Finance	dd	cc
5	MAR	Marketing	Mega Sales	Marketing		
6						
7						

Figure 20 Example of the Permissions file

The Hierarchy sheet lists the nodes and the node labels for the various levels in the hierarchy, and in the Viewers and Managers columns lists the user names of any end users who already have View or Manage access.

Tip
The spreadsheet includes an End Users tab that contains the user names, first names, last names and emails of all end users in the end user list. This information will be helpful when setting up the permissions.

5. In the “Viewers” and “Managers” columns, add the user names of the end users who are to have View or Manage access respectively. If the users are to have access to the entire hierarchy, add the user names to the row with “<Full access to hierarchy>”; if they are only to have access to specific nodes, then add them to the appropriate node row.

   If an end user is to have access to several nodes, then add the user name to all the required rows. The same end user may be listed in any number of rows. Also, any number of end users may be listed in the same cell; in this case separate the user names with commas. Note that Manage permission will take precedence over View permission if assigned to the same end user for the same node(s).

	A	B	C	D	E	F	G
1	Node ID	Node Label	L1:	L2:	Viewers	Managers	
2			<Full access to hierarchy>		bb, ee, ff	aa, hh	
3	MEGA	Mega Sales	Mega Sales		gg, ii		
4	FIN	Finance	Mega Sales	Finance	dd	cc	
5	MAR	Marketing	Mega Sales	Marketing	cc	ii	
6							
7							

Figure 21 The Permissions file with added permissions

6. Once you are happy with the permissions, save the spreadsheet.
7. Return to Hierarchy Management. In the End User List page, click **Manage permissions** and select **Upload**.
8. Click **Choose File**, browse for the file and select it, and then click **Upload**.

   The End User Permissions page now shows a list of all end users who have been granted View or Manage permissions to the hierarchy and the list nodes to which they have been given node permissions, or “ALL” if they have been granted permissions to the entire hierarchy.

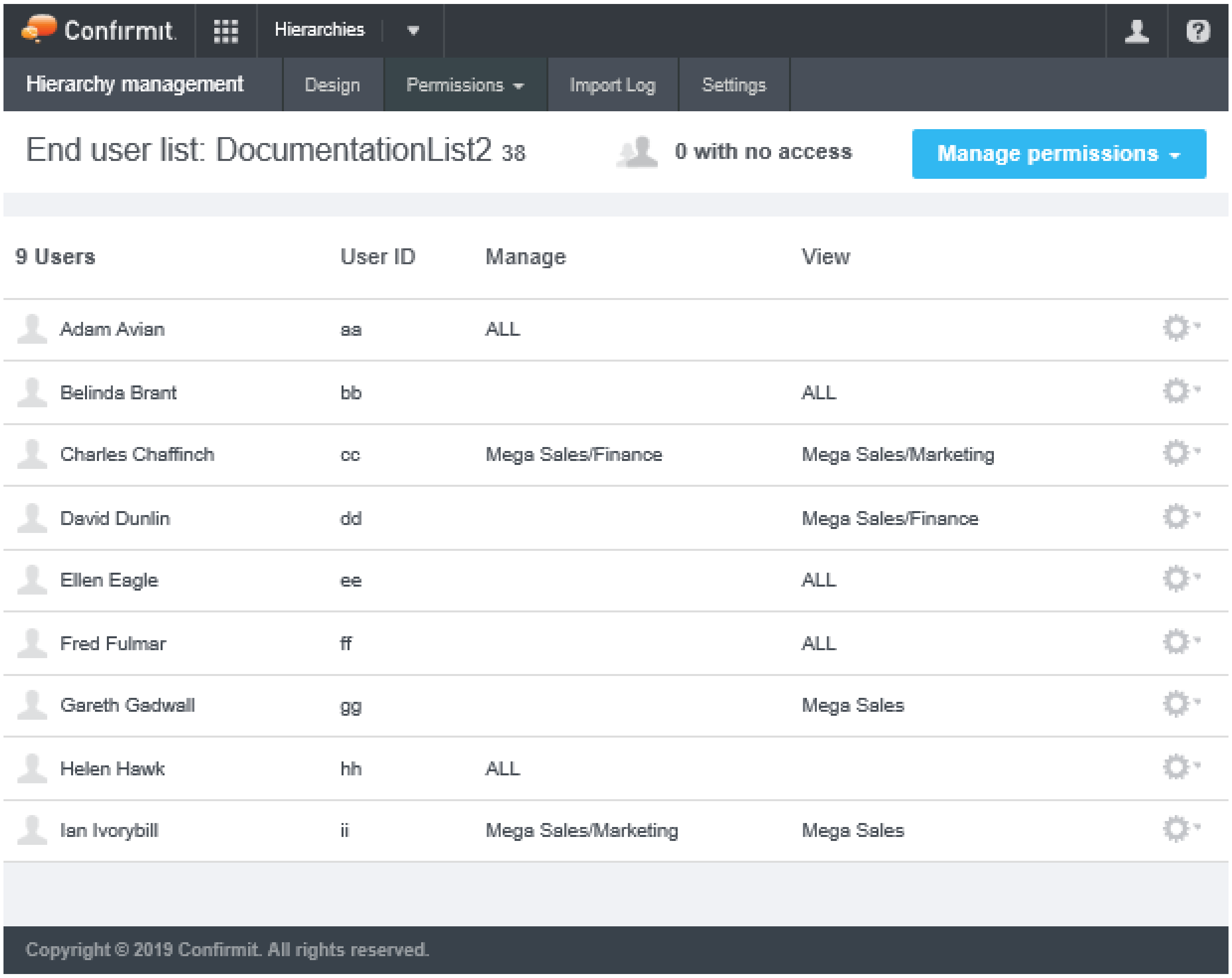

Figure 22 Example of the updated End User List

If you re-upload the hierarchy permissions file, the file will set the permissions only for the nodes with permissions listed in the new upload. So any node with permissions left blank in the new upload will keep its existing permissions, and any node that includes permissions in the new upload will over-write any existing permissions. For nodes not specified in the upload file, the permissions will not be altered.

3.2.6. How to Revoke End User Permissions

To revoke permissions in the end user permissions list:

1. Click the cog-wheel icon for the user and select **Revoke Access**.
2. Confirm the action.

   The end user is removed from the list.

Alternatively, when uploading end user permissions, empty cells will overwrite whatever existing permissions you have set. So you can also revoke permissions through the permission file upload.

4. Editing the Hierarchy

Once the hierarchy exists you can start building it by importing a hierarchy definition, and then perform further editing in the user interface as required. You can add, move and delete child nodes, change node labels, delete and edit contacts and move them between nodes.

Depending on what permissions you have been assigned for the hierarchy, you may see the full hierarchy definition or just a subset of hierarchy nodes, and you may have been granted View permission or Manage permission for the nodes. View, indicated by an “eye” icon, gives you access to look at the details without being able to change anything, While Manage, indicated by a “cog wheel” icon, allows you to add, move and delete child nodes, change node labels, and if the hierarchy has been set up with contacts, delete and edit the contacts and move them between nodes .

Note that when you add a child node to a parent node in the hierarchy, it will be added below any existing child nodes. You cannot re-order or sort the nodes. Note also that while you can import a hierarchy that has more than one top level, you cannot add another top level “manually”; you can only add child nodes.

4.1. Importing a Hierarchy Definition

The hierarchy definition defines the actual structure of the hierarchy - how the various nodes are related to each other. A basic definition in the form of an Excel®[3] , txt, csv or pgp-encrypted file, must be uploaded, but this can be edited as necessary later. Note that for pgp-encrypted files you will need the encryption key.

When you are in the Hierarchies page, click on the appropriate blue hierarchy name link to open that hierarchy. If the hierarchy does not yet contain a definition, a page opens inviting you to import the file.

Important
If you intend to import a hierarchy with contact data, do not upload the hierarchy definition at this point - there are several other things that you must ensure are in place first **(go to Importing the Hierarchy and Contacts on page 22 for more information).**

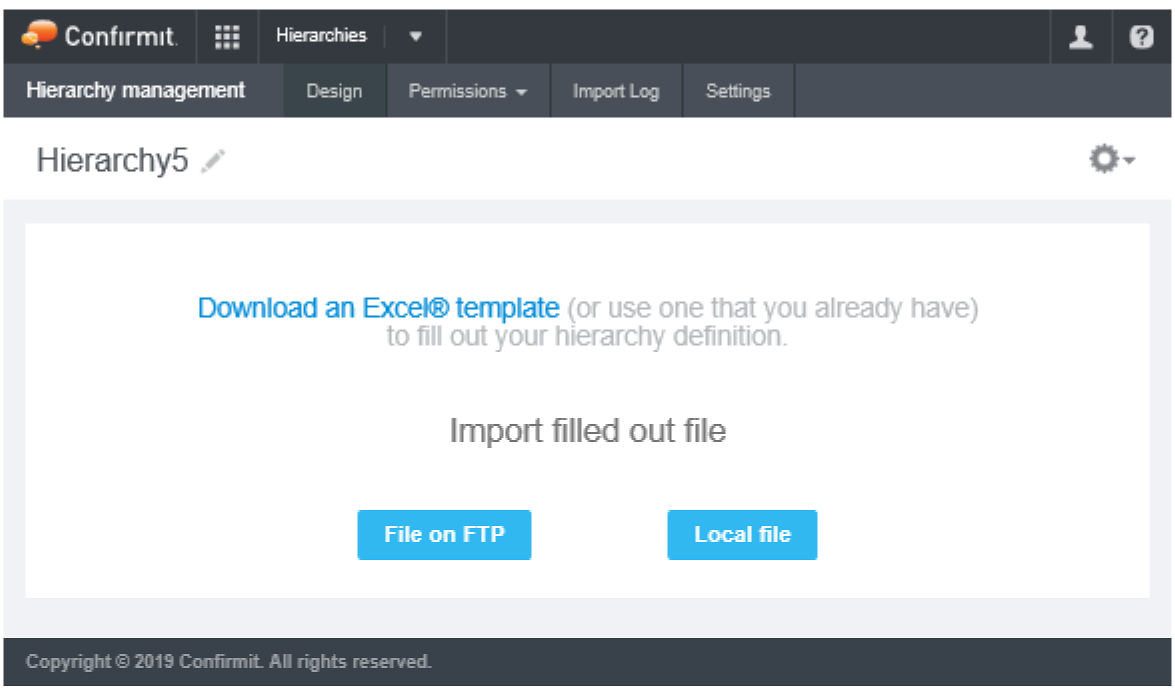

Figure 23 The opening page if your hierarchy does not yet contain a definition

[3]The word Excel®, as used in the Forsta Plus GUI, is a registered trademark of the Microsoft Corporation.

You can upload a local file, or you can upload from FTP. Uploading from FTP enables you to set up a recurring task so uploads can be performed automatically at regular intervals (go to Importing from FTP on page 20 for more information). However to use the FTP system you must have the FTP add-on (contact Forsta for further information).

4.1.1. Importing a Local File

You can import xlsx, txt, csv or pgp encrypted files. Note that for pgp encrypted files you will need the encryption key.

1. Click **Local file**.

   The Import overlay opens.

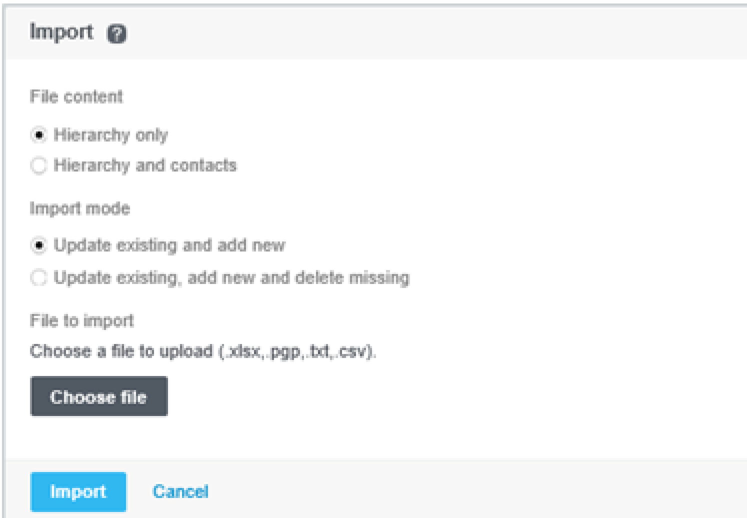

Figure 24 The Import Hierarchy Definition overlay

Here you have several options:

- You can import just a hierarchy definition, which includes the layout and nodes and can include Node IDs and labels (go to Importing Only the Hierarchy on page 22 for more information).
- You can import both the hierarchy definition and a contact database. Note that in this case the hierarchy must be linked to a contact database first (go to Importing the Hierarchy and Contacts on page 22 for more information).
- You can update any existing data, adding new data without removing data that has been deleted.
- You can update any existing data, adding new data and also removing data that has been deleted.

4.1.2. Importing from FTP

Uploading from FTP enables you to set up a recurring task so uploads can be performed automatically at regular intervals. You can import xlsx, txt, csv or pgp encrypted files. Note that for pgp encrypted files you will need the encryption key.

1. Click **File on FTP**.

   The Import FTP file overlay opens.

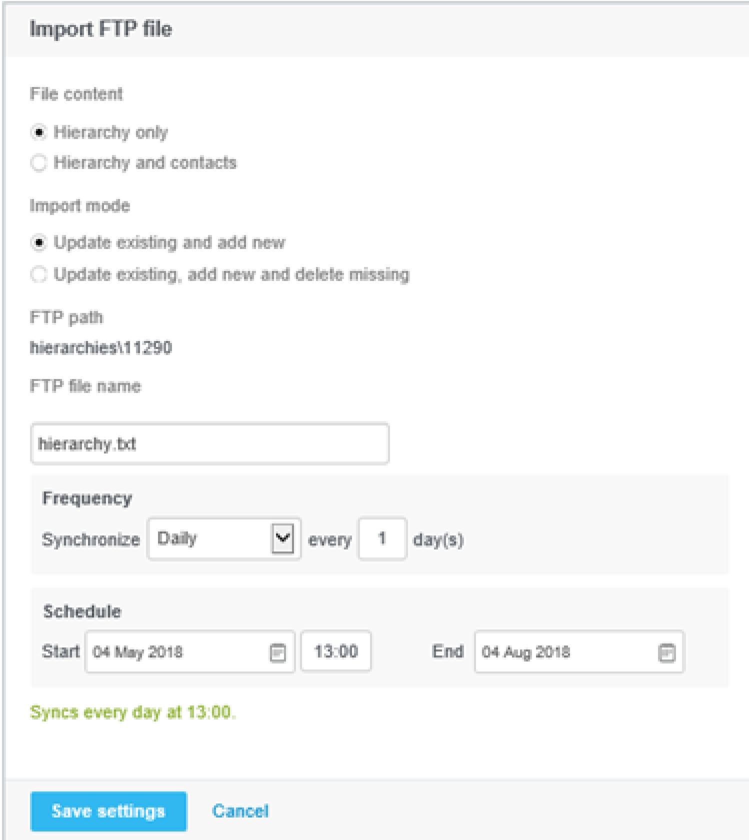

Figure 25 The Import FTP file overlay

You have several options:

- You can import just a hierarchy definition, which includes the layout and nodes and can include Node IDs and labels (go to Importing Only the Hierarchy on page 22 for more information).
- You can import both the hierarchy definition and a contact database. Note that in this case the hierarchy must be linked to a contact database first (go to Importing the Hierarchy and Contacts on page 22 for more information).
- You can update any existing data, adding new data without deleting missing data. This alternative should be used if you are performing an incremental update, not loading a full data set.
- You can update any existing data, adding new data and deleting data that is missing. This alternative could be used if you are uploading a full dataset, and would like to remove data that is not in the new full dataset.

The FTP path is the path and ID of the FTP archive allocated to your company.

2. Type in the file name of the hierarchy you wish to upload from the FTP site.
3. If you wish to set up a recurring task, set how often you want the import to be performed, when the task is to commence and when it is to end.

   The task settings are summarized below the fields for clarity.
4. Click **Save settings**.

The overlay closes and you are returned to the hierarchy download page.

Note: The FTP import task currently updates existing information with new information, and any old data that is not to be replaced will remain unchanged. It will soon be possible to select "Replace" functionality that will remove old data that is not to be updated.

4.1.3. Importing Only the Hierarchy

To import only the hierarchy definition:

1. Select the **Hierarchy Only** option.
2. Click **Choose file**.
3. A standard file selection window for your browser opens.
4. Browse to and select the desired .file, then click **Open**.
5. The Import hierarchy definition overlay returns with the selected file named in the overlay.
6. Click **Import**.
7. The hierarchy is imported

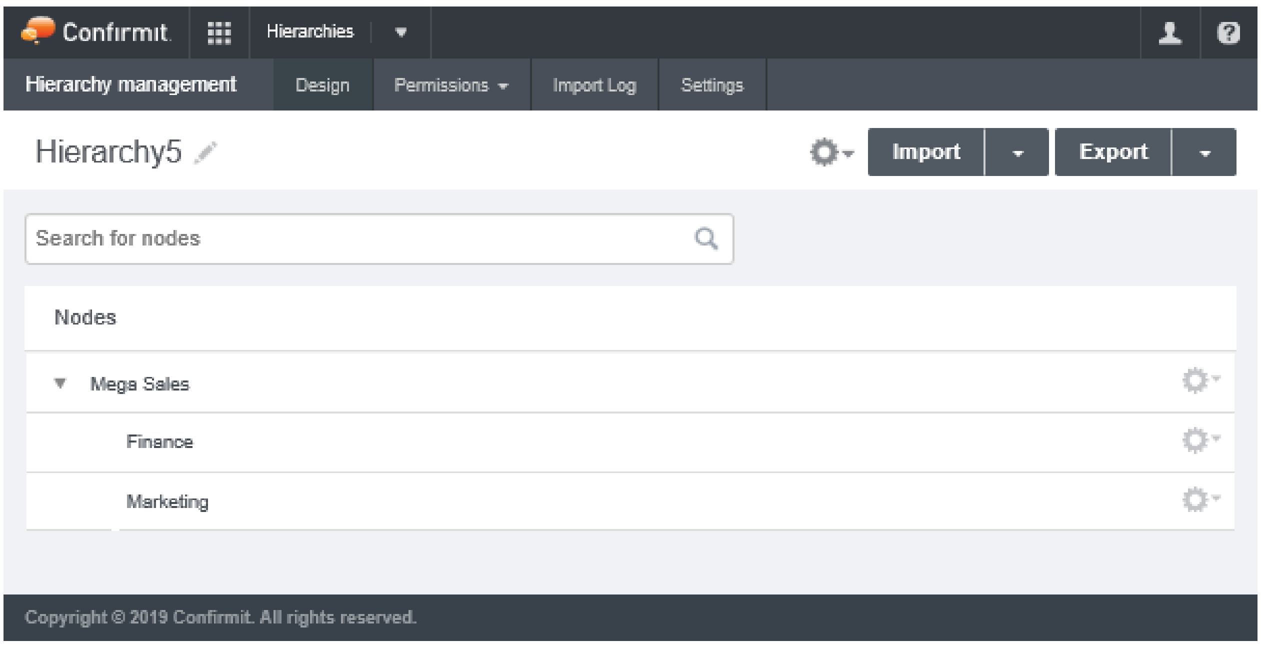

Figure 26 The imported hierarchy

You can now edit the hierarchy (go to Editing the Hierarchy on page 19 for more information) and allocate permissions (go to Hierarchy Permissions on page 10 for more information). Note that the nodes are imported and presented in the same order as they were in the definition file; you cannot re-order or sort the nodes. Note also that you can import a hierarchy that has more than one top level, but you cannot add another top level “manually”; you can only add child nodes.

4.1.4. Importing the Hierarchy and Contacts

If you wish to import the hierarchy definition and contacts, the procedure is more complicated. You must first have a SmartHub and a contact database (refer to the separate SmartHub User Guide for details). The contact database must include fields that match the fields in the hierarchy definition file, and it must have a hierarchy question (single) with its Answers property set to Hierarchy Lookup and the hierarchy selected in the Answers tab (refer to the separate Professional Authoring User Guide for details).

The procedure given below assumes you have none of these so describes every step in the process. In the event you already have a requisite in place and set up correctly, go straight to the next step in the procedure.

1. Having created your hierarchy in Hierarchy Management, make a note of the hierarchy name.

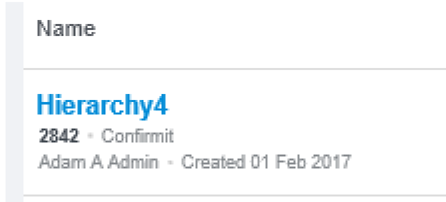

Figure 27 The currently-empty hierarchy in the Hierarchies list

Important
Do not at this stage import the hierarchy definition.

2. Create the hierarchy definition file. This can be an xlsx, txt, csv or pgp encrypted file. Note that for pgp encrypted files you will need the encryption key.

   This can be downloaded from another hierarchy and edited, and can be as complicated or simple as necessary. You can edit it within the hierarchy management functionality later once everything is set up, or if you wish you can export the definition, edit it "externally" then re-import it.

   The hierarchy definition must be in the first columns. For contact data, a contactid is mandatory. Other fields are optional, but you are recommended to have one column named "name" and one named "email", because these will be shown in the hierarchy editor if they are present.

	A	B	C	D	E	F	G	H	I	J
1	Node ID	Node Label	L1:	L2:	L3:	ContactId	name	email	hierarchy	
2	1	Smart Shop	Smart Shop			34385	Nero Emerson	Nero.Emerson@smartshop.com	1	
3	2	Administration	Smart Shop	Administration		22589	Bruno Mcmahon	Bruno.Mcmahon@smartshop.com	2	
4	2	Administration	Smart Shop	Administration		62338	Isaiah Trevino	Isaiah.Trevino@smartshop.com	2	
5	2	Administration	Smart Shop	Administration		69276	Reece Acosta	Reece.Acosta@smartshop.com	2	
6	3	Finance	Smart Shop	Administration	Finance	52545	Amir Gardner	Amir.Gardner@smartshop.com	3	
7	3	Finance	Smart Shop	Administration	Finance	23175	Cameron Smith	Cameron.Smith@smartshop.com	3	
8	3	Finance	Smart Shop	Administration	Finance	86947	Jeremy Tran	Jeremy.Tran@smartshop.com	3	
9	3	Finance	Smart Shop	Administration	Finance	26307	Tyler Carter	Tyler.Carter@smartshop.com	3	
10	4	Legal	Smart Shop	Administration	Legal	88063	Benedict Stokes	Benedict.Stokes@smartshop.com	4	
11	4	Legal	Smart Shop	Administration	Legal	39069	Sawyer Yang	Sawyer.Yang@smartshop.com	4	
12	5	HR	Smart Shop	Administration	HR	54473	Daquan Rhodes	Daquan.Rhodes@smartshop.com	5	
13	5	HR	Smart Shop	Administration	HR	64571	Keefe Barry	Keefe.Barry@smartshop.com	5	
14	5	HR	Smart Shop	Administration	HR	71474	Rahim Levine	Rahim.Levine@smartshop.com	5	
15	5	HR	Smart Shop	Administration	HR	23347	Raymond Sheppard	Raymond.Sheppard@smartshop.com	5	
16	6	Sales	Smart Shop	Sales		34397	Chadwick William	Chadwick.William@smartshop.com	6	
17	6	Sales	Smart Shop	Sales		42905	Dante Velasquez	Dante.Velasquez@smartshop.com	6	
18	7	Europe	Smart Shop	Sales	Europe	11623	Aaron Dickson	Aaron.Dickson@smartshop.com	7	
19	7	Europe	Smart Shop	Sales	Europe	58798	Dalton Valentine	Dalton.Valentine@smartshop.com	7	
20	7	Europe	Smart Shop	Sales	Europe	32459	Duncan Sellers	Duncan.Sellers@smartshop.com	7	
21	7	Europe	Smart Shop	Sales	Europe	70251	Hakeem Peters	Hakeem.Peters@smartshop.com	7	
22	7	Europe	Smart Shop	Sales	Europe	65445	Hiram Ellis	Hiram.Ellis@smartshop.com	7	

Figure 28 Extract of a hierarchy file with contacts

3. Go to SmartHub and if you do not already have the hub you wish to use, create a new hub. Refer to the separate SmartHub User Guide for further details.

4. Make a note of the hub name and ID. These are located at the top of the SmartHub window.

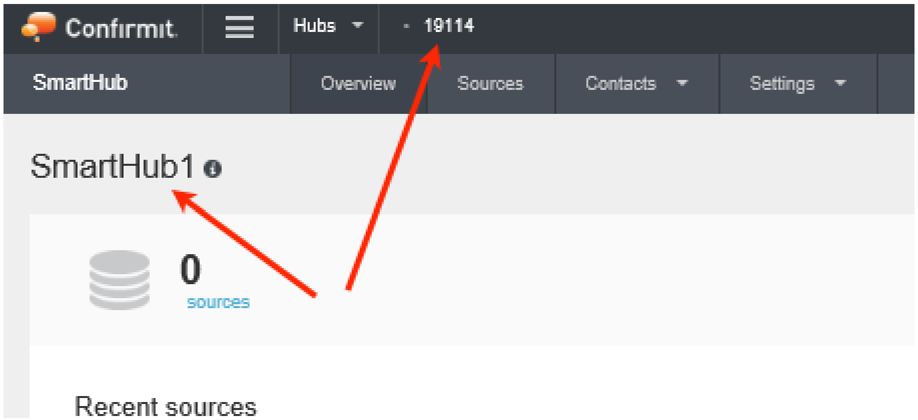

Figure 29 Example of the SmartHub name and ID

5. If you do not already have the contact database you wish to use, create a new contact database. Refer to the separate SmartHub User Guide for further details.
6. In Professional Authoring, open the contact database, go to **Contact Database Setup > Designer** and add questions to the contact database that match the fields you have in your hierarchy definition file, for example email (open text), name (open text), gender (single) etc.

   The variable names must match the column headers you have in your file. The contact database will already have a system field for the contactid (unique id, such as for example employee number), so you do not need to add that.
7. Add a hierarchy question and link it to the hierarchy you set up in step 1.

   To do this, add a single question, go to its **Properties** and set “Answers” to “Hierarchy lookup”. In the question’s Answers tab, select Schema name and Hierarchy to be the hierarchy you set up in step 1 of this procedure.

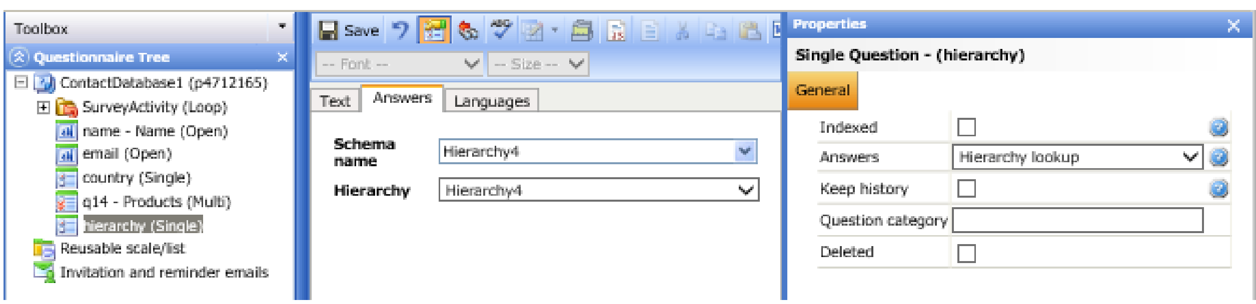

Figure 30 Setting up the Hierarchy question in the contact database

8. Generate the contact database.
9. Go back to Hierarchy Management to the hierarchy you created in step 1 of this procedure, and import the hierarchy definition you created in step 2. Note in the hierarchy list that your hierarchy is now linked to the contact database.

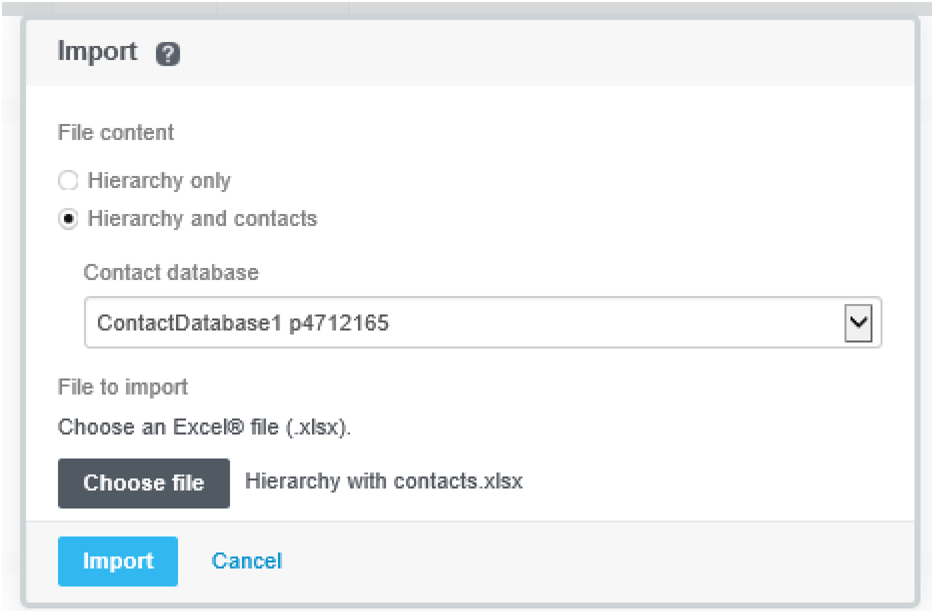

Figure 31 Importing the hierarchy and contacts

The Hierarchy Management page opens with your hierarchy and the imported contacts.

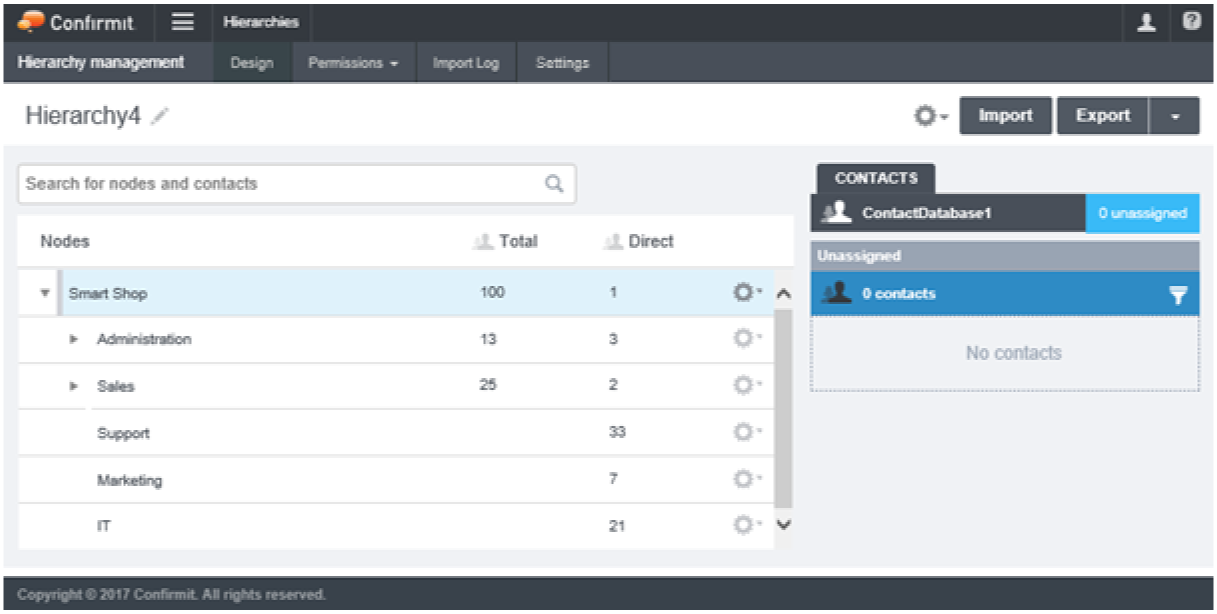

Figure 32 The hierarchy with contacts

Click on a node to view and edit the contacts in that node.

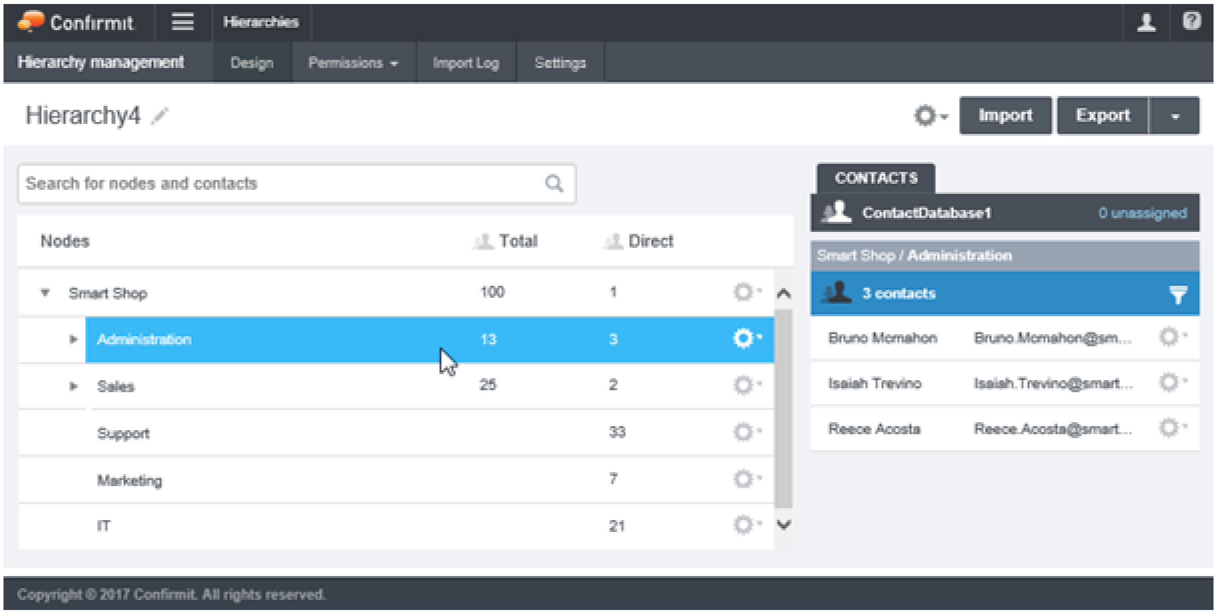

Figure 33 The contacts in the Mega Sales node

The Contacts area shows the ID, email and name (if provided) for the contacts in the selected node.

- **Total -** the total number of contacts registered in this node and its child nodes.
- **Direct -** the number of contacts directly related to each child node. Note that there will be a Direct column for each level in the hierarchy.
- **Unassigned -** if you are unsure of where in the hierarchy a contact should be, you can drag the contact to the Unassigned field. Someone else (who has been given Manage permission (go to Hierarchy Permissions on page 10 for more information)) can then place the contact in the correct node. Also, if a contact in the hierarchy definition has no Node ID and Label, then the contact will be placed into the Unassigned field automatically on upload.

You can move contacts to different nodes, view and edit node details and add child nodes (go to Editing the Hierarchy on page 19 for more information).

4.1.5. The Error File

If something is incorrect in the upload file, the system will provide a list of errors which can be opened in the user interface. An Excel®[4] file with a tab that lists the errors is also provided. This includes highlighting and linking so you can easily find the cells containing the errors, which you must correct before re-uploading the file.

4.1.6. Uploading Files to an Existing Hierarchy Definition

The hierarchy management module supports uploading data multiple times, and thus supports both the extending and updating of hierarchy definitions and contacts with new data.

Note that re-uploading a hierarchy file can alter the hierarchy or contacts:

- Nodes can be renamed.
- Nodes can be moved to either existing nodes or new nodes.
- New nodes can be added.
- Existing nodes can be deleted.
- Contacts can be added.

[4] The word Excel®, as used in the Forsta Plus GUI, is a registered trademark of the Microsoft Corporation.

- Contacts can be moved to another node.
- Contacts can be updated.
- Existing contacts can be deleted.

To update the labels of existing nodes, the upload file must include node ids (or else there is nothing to match on). Node ids are case insensitive and will be stored in lower case. If node ids are included, the system will update nodes that already exist, and insert nodes for which there are no matching node ids.

The contactid column is mandatory for any upload involving contacts. If contact id is included, the system will update the existing record for a contact id that already exists, or add a new contact when there is no matching contactid in the database already.

4.1.7. The Import Log

The Import Log lists all the imports that have been made to the hierarchy, in order of date/time with the latest import at the top of the list.

To open the page, click **Import Log**.

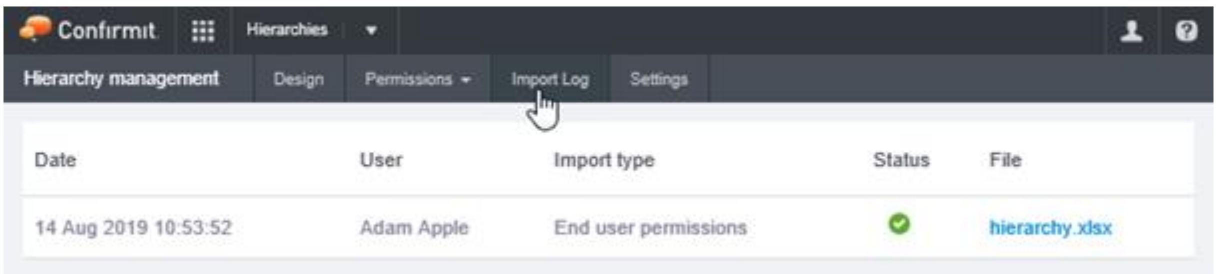

Figure 34 Example of the Import Log page

If you wish to download an imported .xlsx file (perhaps you wish to edit the file and re-import it to update the hierarchy), click the blue file name.

For successful imports, the file uploaded will be available for download. For imports that fail with errors, you can download a file where the original content is augmented with error messages and where cells with issues are highlighted. This makes it possible to investigate issues from file uploads also some time after the upload was done, or easily have other people reviewing uploads that failed.

4.2. Node Attributes

In addition to **node label** and **node id**, when running a “hierarchy only” import you can upload additional information about the hierarchy nodes by adding additional columns to the hierarchy file. Place these after the level columns (for a full path import) or parent id (for a parent/child import). Note that it is not possible to add additional columns for node attributes if the file includes contacts data.

These node attributes can be retrieved through scripting in surveys, data processing rules, and reporting. The attributes provide capabilities for, for example, presenting additional data points related to a hierarchy.

Note: Node attributes are imported alphabetically. If the attributes must be in a specific order, then they must be named or numbered such that they fall in the desired order when displayed in the Edit Node window.

The system will automatically add additional variables for each of the additional columns included in the upload file, and will upload the data from the file. Data will be treated as open text. The maximum number of additional columns that can be uploaded is 100. When viewing/editing details of a node in the hierarchy, these fields will be available to the user alongside node id and node label (go to The Node Edit Menu on page 32 for more information).

Note: Once created, node attributes are permanent and cannot be renamed or deleted from within Hierarchy Management. If you need to delete node attributes then you must contact Support at support@confirmit.com and ask them to delete the attributes directly in the database.

4.3. How to Export a Hierarchy

Once the hierarchy exists you can export the hierarchy definition as an .xlsx file. You can then edit the file as necessary in Excel®[5] before re-importing it, or import it into a different Forsta Plus setup. You can export the hierarchy definition as "Hierarchy only" or as "Hierarchy & contacts". Each can be exported in two different formats; either as “full path” in which relations between nodes are described in the level columns L1, L2, L3,…, or as “parent-child” where the relations between nodes are described by specifying the parent for each node (and no parent for a top node).

To export a hierarchy definition:

1. When in the relevant hierarchy, click the **Export** down-arrow in the upper-right corner of the window.

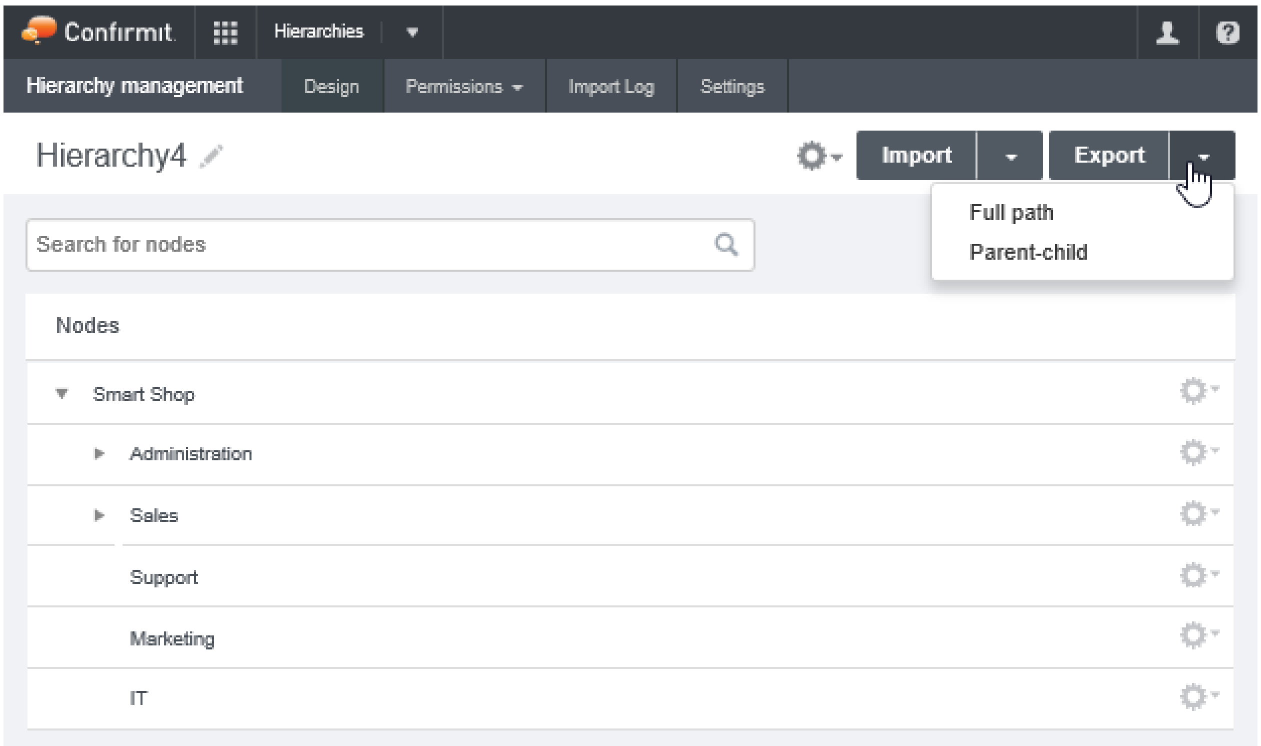

Figure 35 Exporting a definition - 1

2. Decide whether you want to export “Full path” or “Parent-child”.

- **Full path -** exports the full table showing the node ids, node labels and all the various levels.
- **Parent-child -** exports a list of the nodes with the number of child contacts under each node.

  Note that if you merely click on the **Export** button, you will get the Full path option. For all options, the Save dialog opens towards the bottom of the Forsta Plus window.

[5]The word Excel®, as used in the Forsta Plus GUI, is a registered trademark of the Microsoft Corporation.

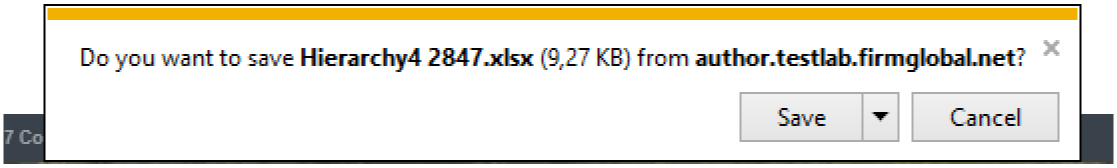

Figure 36 Example of the Save dialog

3. Select the desired option (Save, Save as, or Save and open, or Cancel, as required.

   Once the file is saved, you can then open the file. If you select **Open** then Excel® opens with the definition; see examples below.

	A	B	C	D	E	F
1	Node ID	Node Label	L1:	L2:	L3:	
2	1	Smart Shop	Smart Shop			
3	2	Administration	Smart Shop	Administration		
4	3	Finance	Smart Shop	Administration	Finance	
5	4	Legal	Smart Shop	Administration	Legal	
6	5	HR	Smart Shop	Administration	HR	
7	6	Sales	Smart Shop	Sales		
8	7	Europe	Smart Shop	Sales	Europe	
9	8	US	Smart Shop	Sales	US	
10	9	Support	Smart Shop	Support		
11	10	Marketing	Smart Shop	Marketing		
12	11	IT	Smart Shop	IT		

	A	B	C	D
1	id	__l9	parent	
2	1	Smart Shop		
3	2	Administration	1	
4	3	Finance	2	
5	4	Legal	2	
6	5	HR	2	
7	6	Sales	1	
8	7	Europe	6	
9	8	US	6	
10	9	Support	1	
11	10	Marketing	1	
12	11	IT	1	

Figure 37 Example of Hierarchy Only Full path and Parent-child exports

	A	B	C	D	E	F	G	H	I	J
1	Node ID	Node Label	L1:	L2:	L3:	ContactId	name	email	hierarchy	
2	1	Smart Shop	Smart Shop			34385	Nero Emerson	Nero.Emerson@smartshop.com	1	
3	2	Administration	Smart Shop	Administration		22589	Bruno Mcmahon	Bruno.Mcmahon@smartshop.com	2	
4	2	Administration	Smart Shop	Administration		62338	Isaiah Trevino	Isaiah.Trevino@smartshop.com	2	
5	2	Administration	Smart Shop	Administration		69276	Reece Acosta	Reece.Acosta@smartshop.com	2	
6	3	Finance	Smart Shop	Administration	Finance	52545	Amir Gardner	Amir.Gardner@smartshop.com	3	
7	3	Finance	Smart Shop	Administration	Finance	23175	Cameron Smith	Cameron.Smith@smartshop.com	3	
8	3	Finance	Smart Shop	Administration	Finance	86947	Jeremy Tran	Jeremy.Tran@smartshop.com	3	
9	3	Finance	Smart Shop	Administration	Finance	26307	Tyler Carter	Tyler.Carter@smartshop.com	3	
10	4	Legal	Smart Shop	Administration	Legal	88063	Benedict Stokes	Benedict.Stokes@smartshop.com	4	
11	4	Legal	Smart Shop	Administration	Legal	39069	Sawyer Yang	Sawyer.Yang@smartshop.com	4	
12	5	HR	Smart Shop	Administration	HR	54473	Daquan Rhodes	Daquan.Rhodes@smartshop.com	5	
13	5	HR	Smart Shop	Administration	HR	64571	Keefe Barry	Keefe.Barry@smartshop.com	5	
14	5	HR	Smart Shop	Administration	HR	71474	Rahim Levine	Rahim.Levine@smartshop.com	5	
15	5	HR	Smart Shop	Administration	HR	23347	Raymond Sheppard	Raymond.Sheppard@smartshop.com	5	
16	6	Sales	Smart Shop	Sales		34397	Chadwick William	Chadwick.William@smartshop.com	6	
17	6	Sales	Smart Shop	Sales		42905	Dante Velasquez	Dante.Velasquez@smartshop.com	6	
18	7	Europe	Smart Shop	Sales	Europe	11623	Aaron Dickson	Aaron.Dickson@smartshop.com	7	
19	7	Europe	Smart Shop	Sales	Europe	58798	Dalton Valentine	Dalton.Valentine@smartshop.com	7	
20	7	Europe	Smart Shop	Sales	Europe	32459	Duncan Sellers	Duncan.Sellers@smartshop.com	7	
21	7	Europe	Smart Shop	Sales	Europe	70251	Hakeem Peters	Hakeem.Peters@smartshop.com	7	
22	7	Europe	Smart Shop	Sales	Europe	65445	Hiram Ellis	Hiram.Ellis@smartshop.com	7	

Figure 38 Extract from a Hierarchy & Contacts Full path export

	A	B	C	D	E	F	G
1	id	__l9	parent	ContactId	name	email	hierarchy
2	1	Smart Shop		34385	Nero Emerson	Nero.Emerson@smartshop.com	1
3	2	Administration	1	22589	Bruno Mcmahon	Bruno.Mcmahon@smartshop.com	2
4	2	Administration	1	62338	Isaiah Trevino	Isaiah.Trevino@smartshop.com	2
5	2	Administration	1	69276	Reece Acosta	Reece.Acosta@smartshop.com	2
6	3	Finance	2	52545	Amir Gardner	Amir.Gardner@smartshop.com	3
7	3	Finance	2	23175	Cameron Smith	Cameron.Smith@smartshop.com	3
8	3	Finance	2	86947	Jeremy Tran	Jeremy.Tran@smartshop.com	3
9	3	Finance	2	26307	Tyler Carter	Tyler.Carter@smartshop.com	3
10	4	Legal	2	88063	Benedict Stokes	Benedict.Stokes@smartshop.com	4
11	4	Legal	2	39069	Sawyer Yang	Sawyer.Yang@smartshop.com	4
12	5	HR	2	54473	Daquan Rhodes	Daquan.Rhodes@smartshop.com	5
13	5	HR	2	64571	Keefe Barry	Keefe.Barry@smartshop.com	5
14	5	HR	2	71474	Rahim Levine	Rahim.Levine@smartshop.com	5
15	5	HR	2	23347	Raymond Sheppard	Raymond.Sheppard@smartshop.com	5
16	6	Sales	1	34397	Chadwick William	Chadwick.William@smartshop.com	6
17	6	Sales	1	42905	Dante Velasquez	Dante.Velasquez@smartshop.com	6
18	7	Europe	6	11623	Aaron Dickson	Aaron.Dickson@smartshop.com	7
19	7	Europe	6	58798	Dalton Valentine	Dalton.Valentine@smartshop.com	7

Figure 39 Extract from a Hierarchy & Contacts Parent-child export

You can now edit the file as necessary, and upload it again on completion.

4.4. How to Rename a Hierarchy

Note: To be able to rename a hierarchy you must have Manage permission for that hierarchy.

To rename a hierarchy:

1. Open the hierarchy you wish to rename.
2. Click the pen icon next to the hierarchy name on the Design page to open the field for editing.

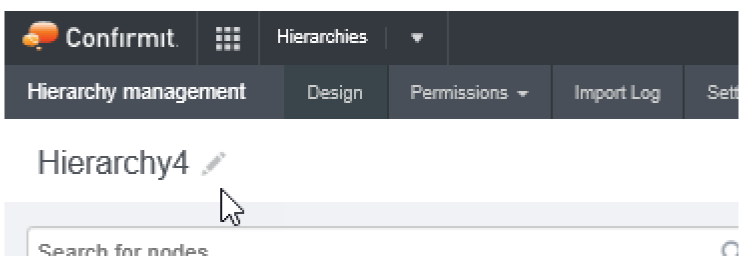

Figure 40 Changing the hierarchy name

3. Change the name as required, and either press **Enter** or tab or click out of the field to save the changes.

   If you want to cancel the changes before you have saved, press **Escape** (ESC).

4.5. How to Delete a Hierarchy

Note: To be able to delete a hierarchy you must have Manage permission for that hierarchy.

To delete an unwanted hierarchy:

1. Open the hierarchy you wish to delete.
2. Click the cog-wheel icon to open the drop-down and click **Delete hierarchy**.

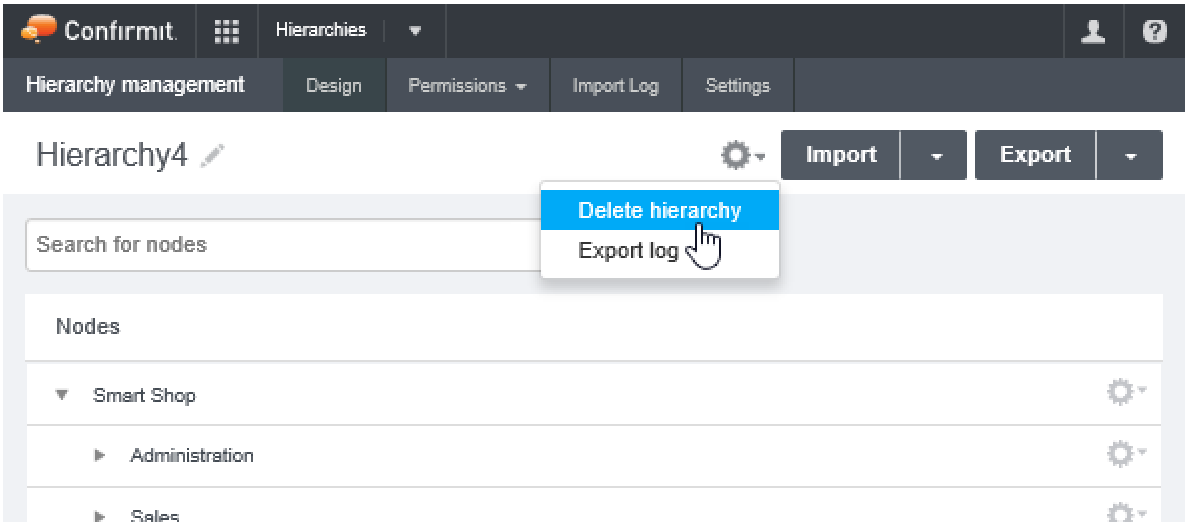

Figure 41 Deleting a hierarchy

If the hierarchy is used in any surveys, panels or contact databases, a warning message will be presented to inform you that these will stop working.

The confirm deletion dialog opens.

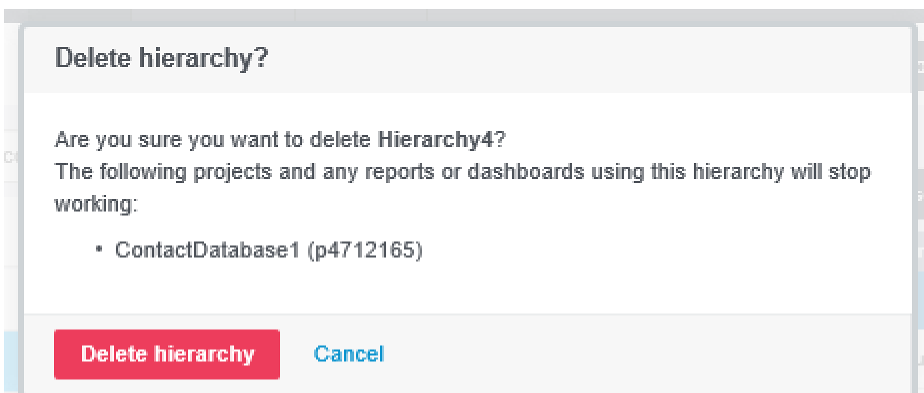

Figure 42 The confirm deletion dialog

3. Cancel the operation, or select **Delete hierarchy** to remove the hierarchy from the system.

   Once deleted, the hierarchy will be unavailable from the hierarchy list from Authoring and Reportal.

4.6. Searching for Nodes, Contacts and End Users

In the event your hierarchy is extensive, to simplify editing you can search by node label or ID, the contact details shown (email, name) or contactid, or the end user. To search, type a character string into the Search field to display a list of the hits containing that string.

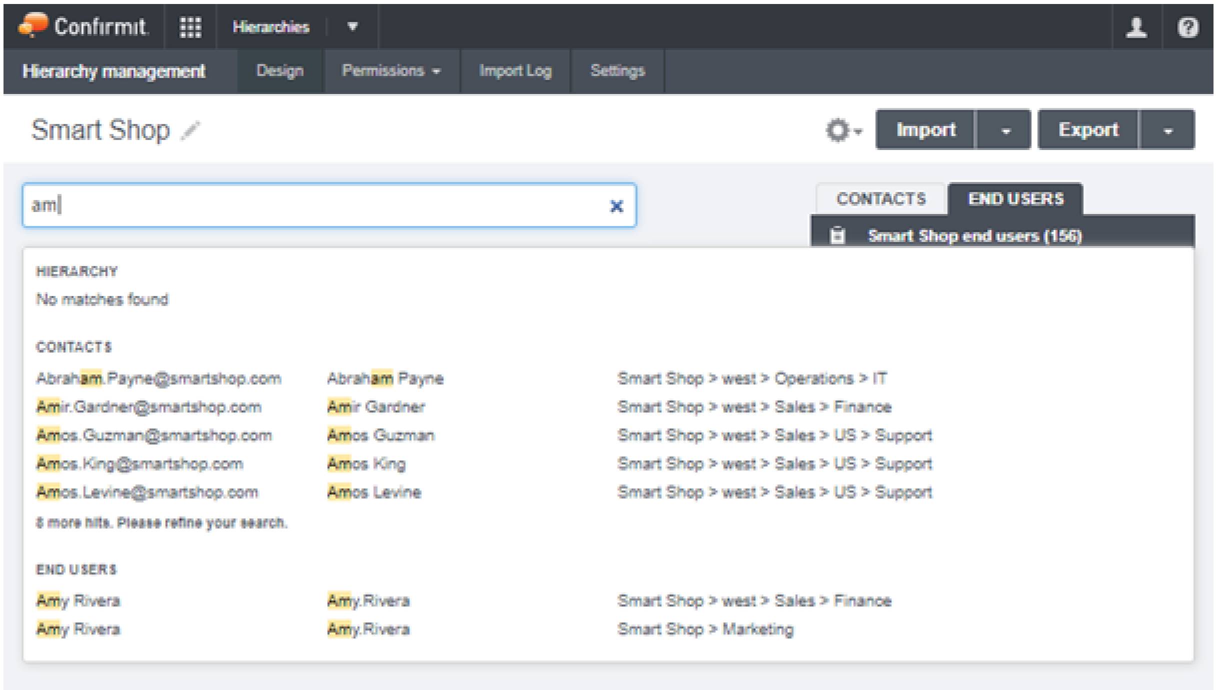

Figure 43 Searching in a hierarchy

- Click on a hit in the “found” list to go to that node.
- To find an ID there must be an exact match, whereas for labels the search will return any item that contains the string of characters that you type into the search field.
- For end users who have access permission to only parts of the hierarchy (node permissions), the search will only be conducted within the parts of the hierarchy they have access to.
- If you know the node ID number, you can also open the hierarchy at a specific node. Type a ***/*** character followed by the node number into the URL in the browser address bar to go directly to that node.

Figure 44 Opening at a specific node

4.7. The Node Edit Menu

Each node in a hierarchy can be edited independently of the other nodes, and has its own **Edit** menu to facilitate this.

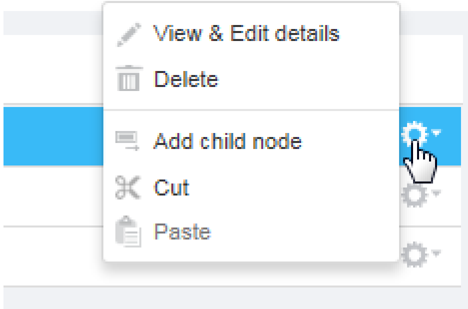

Figure 45 The Edit menu for a node

- **View and Edit details -** here you can view the node id and the label, and edit the label as required (go to Node Attributes on page 27 for more information)
- **Delete -** delete the node and any child nodes it may contain (go to How to Delete a Node on page 33 for more information).
- **Add child node -** add a child node to the current node (go to How to Add a Child Node on page 34 for more information).
- **Cut/paste -** move child nodes from one higher-level node to another (go to Cutting and Pasting Nodes on page 35 for more information).

4.7.1. Viewing and Editing Node Details

Each node has its own Details overlay showing the node ID and label, and allowing you to edit the label. To open this overlay, click on the edit icon for the node and select **View and Edit details**.

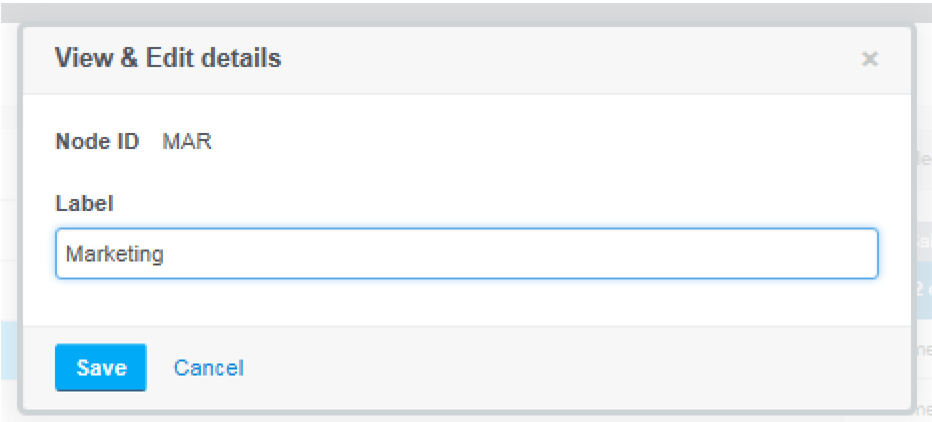

Figure 46 Example of a Node Details overlay

4.7.2. How to Delete a Node

1. Click on the Edit icon for the node to open the **Edit** menu, and select **Delete**.

   An overlay opens asking you to confirm the deletion.

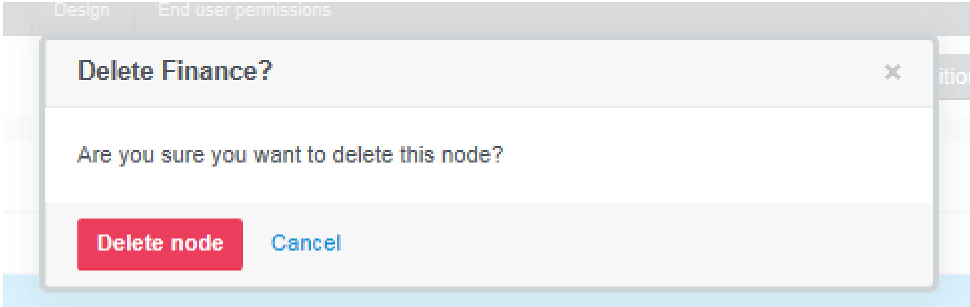

Figure 47 The confirmation overlay

If the node you are deleting has child nodes then a warning is displayed to ensure you are aware of this.

Note: If contacts are assigned to the node or any of its child nodes, you will not be allowed to delete the node. You must first move (go to Moving Contacts Between Nodes on page 35 for more information) or delete (go to Deleting Contacts on page 38 for more information) all contacts assigned to the node or any of its child nodes.

2. To confirm the deletion click **Delete node**.

4.7.3. How to Add a Child Node

You can add child nodes to existing nodes in any location within the hierarchy. Note that you cannot add a node such that it becomes another “top-level” node.

1. Find the node into which you wish to add a child node.
2. Click on the **Edit** icon for the node to open the **Edit** menu, and select **Add child node**.

   The Add child node overlay opens.

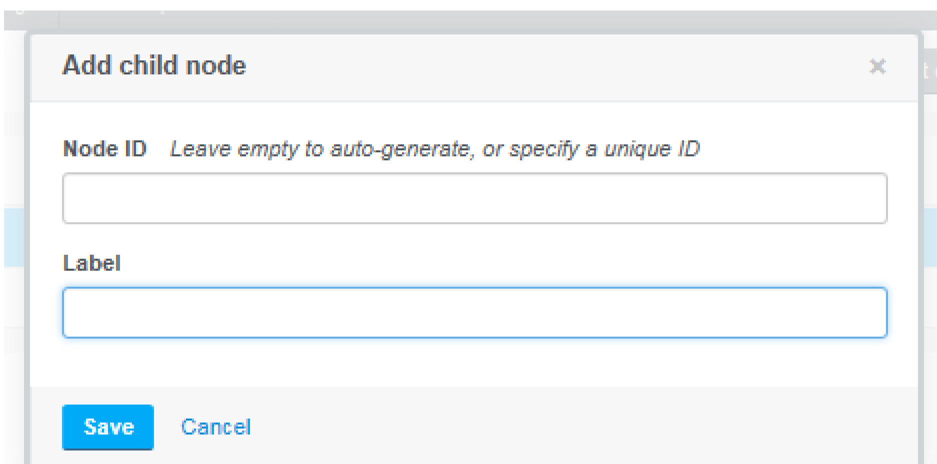

Figure 48 The Add child node overlay

3. The Node ID must be unique for the hierarchy. Type in an ID, or leave the field empty if you want the system to generate an ID automatically.
4. Type in the label you wish to use for the node.
5. Click **Save**.

The child node is created and added to the hierarchy

4.7.4. Cutting and Pasting Nodes

Once the hierarchy is created, you can move nodes around using the cut-and-paste functionality. Note that you can only paste nodes into other nodes; you cannot move a node such that it becomes another "top-level" node. Also, you cannot re-order the child nodes within a parent node.

1. Click on the **Edit** icon for the node to open the **Edit** menu, and select **Cut**.

   The node (including any child nodes it may contain) is grayed out.

2. Click on the parent node into which you wish to paste the node.
3. Click **Paste**.

   The node (and any child nodes it may contain) is pasted into the selected node. Note that the incoming node will be pasted below any other child nodes that are already in the selected parent node.

All contacts in the node and any child node it may contain will automatically be moved along with the node(s). The Total and Direct count values will be updated on completion of the move.

4.8. Moving Contacts Between Nodes

If you have contacts assigned to your hierarchy, you can easily move them between nodes in the event of job changes etc. To do this:

1. Open the hierarchy.
2. Expand the nodes as necessary so you can see, in the Contacts area, the contact(s) you wish to move.

Note: If you can see a icon for a node then you have Manage permission and can edit the contacts. If you see a icon, then you only have View permission and cannot change anything.

1. Click on the contact (note that you can press the **Ctrl** key and select multiple contacts), and drag the contact(s) from the Contacts area and drop it onto the new location.

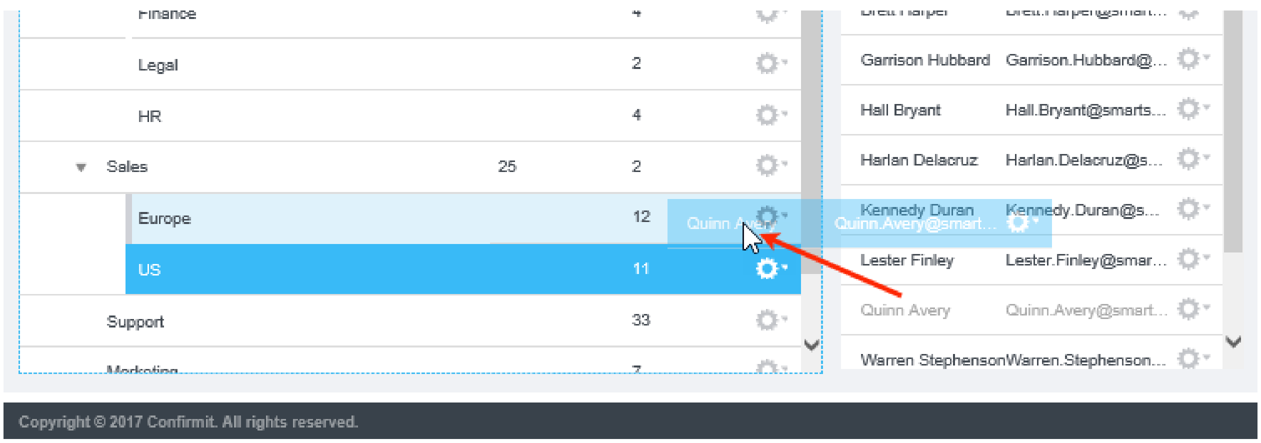

Figure 49 Relocating contact 1447 from Marketing to Finance by dragging and dropping

You are notified that the contact has been moved, and the counts are updated.

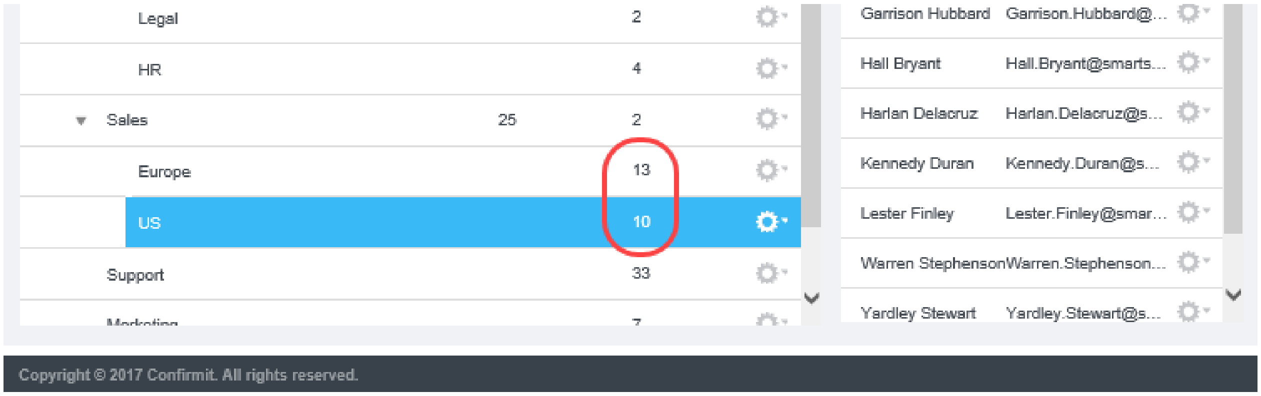

Figure 50 The contact is moved and the counts are updated

If you are unsure of where in the hierarchy a contact should be, you can drag the contact to the Unassigned field (just above the Contacts area). Someone else (who has been given Manage permission for the hierarchy (go to Hierarchy Permissions on page 10 for more information)) can then place the contact in the correct node.

4.9. Unassigned Contacts

If a contact in the hierarchy definition has no Node ID and Label, then the contact will be placed automatically into the Unassigned field on upload. Also, if you are unsure of where in the hierarchy a contact should be, you can drag the contact from a node's Contacts area to the Unassigned field. Someone else (who has been given Manage permission (go to Hierarchy Permissions on page 10 for more information)) can then place the contact in the correct node.

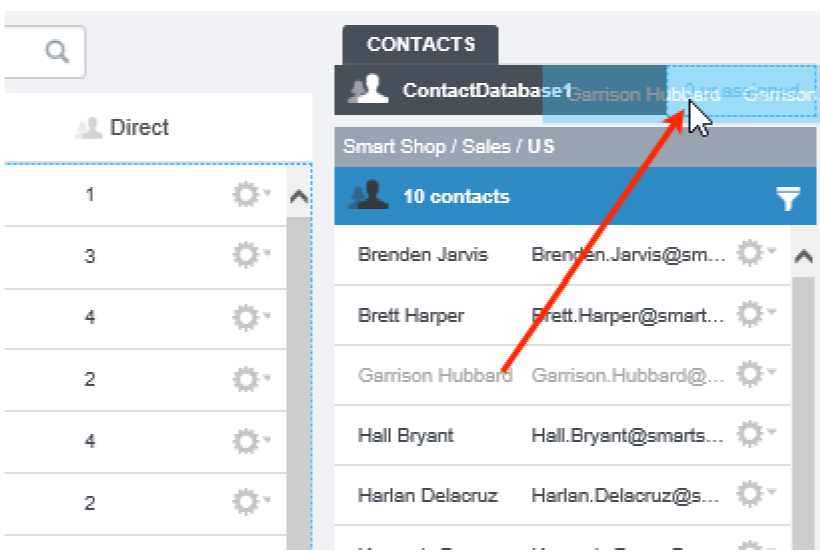

Figure 51 Dragging a contact to the Unassigned field

When you have contacts in the Unassigned field, you can click on the field to view the contacts, and drag those contacts to hierarchy nodes as required.

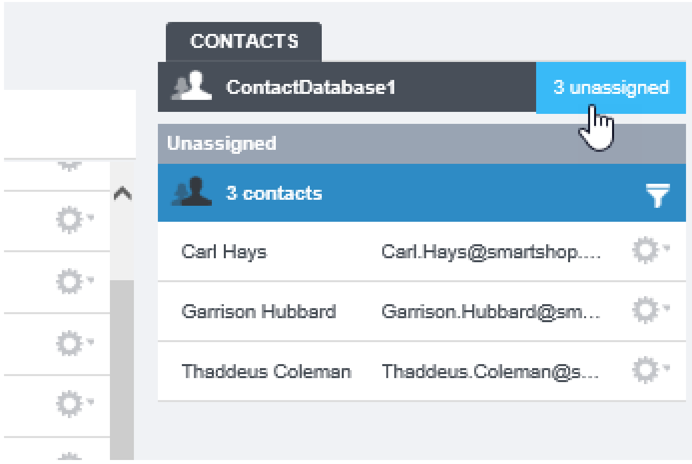

Figure 52 Contacts in the Unassigned field

4.10. Editing Contacts

A Professional User with “Manage” permission to the entire hierarchy will be allowed to edit contacts data. An end user with “manage” permission for the node the contact belongs to, or to the entire hierarchy may, depending on settings in hierarchy properties, also have this ability (go to The Hierarchy Settings on page 40 for more information)

To edit the details of a contact:

1. In the Contacts panel, click on the cog wheel to the right of the contact and select **View & Edit contact**.

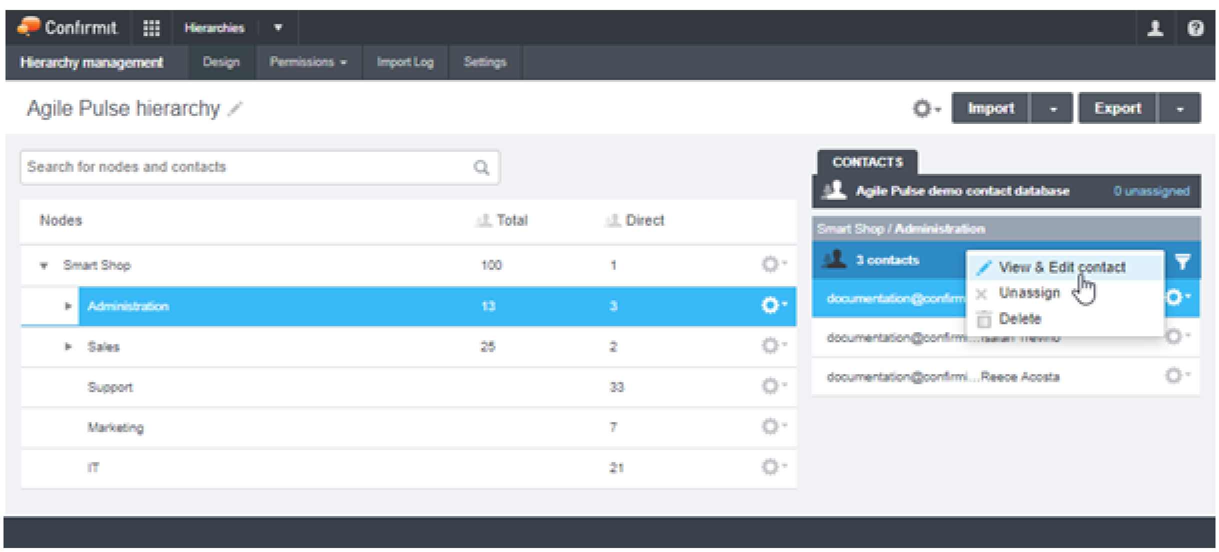

Figure 53 Selecting View & Edit Contacts

The View & Edit Contacts overlay opens. The fields available for editing will be any open text, numeric, date or single variables from the contacts database.

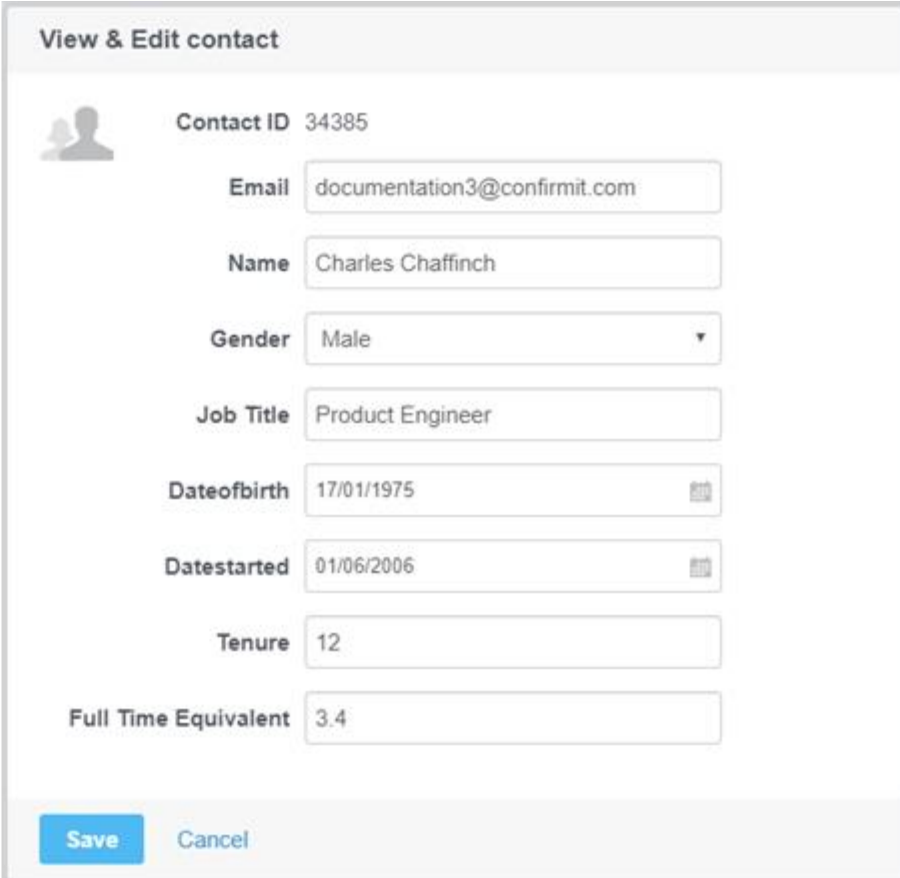

Figure 54 Example of the View & Edit Contacts overlay for a contact

2. Make the necessary changes and click **Save** to return to the hierarchy page.

4.11. Deleting Contacts

To be allowed to delete a contact assigned to a node, you must either be a Professional User with Manage permission for the hierarchy, or, as an End User, depending on the settings in Hierarchy Properties (go to The Hierarchy Settings on page 40 for more information), have Manage permission for the node the contact belongs to, or to the entire hierarchy. To be allowed to delete a contact in “Unassigned”, you must have Manage permission to the entire hierarchy.

Important
Deleting a contact will also remove any data associated with it, and this will affect any reports using this data.

To delete a contact:

1. In the Contacts panel, click on the cog wheel icon to the right of the contact and select **Delete**.

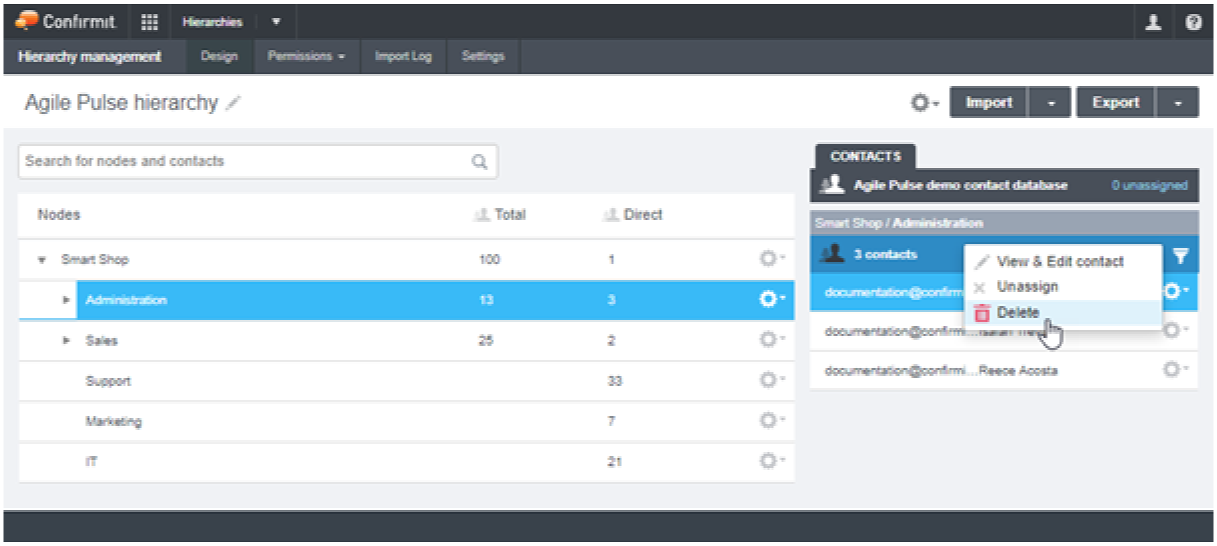

Figure 55 Deleting a contact

The Delete Contact overlay opens.

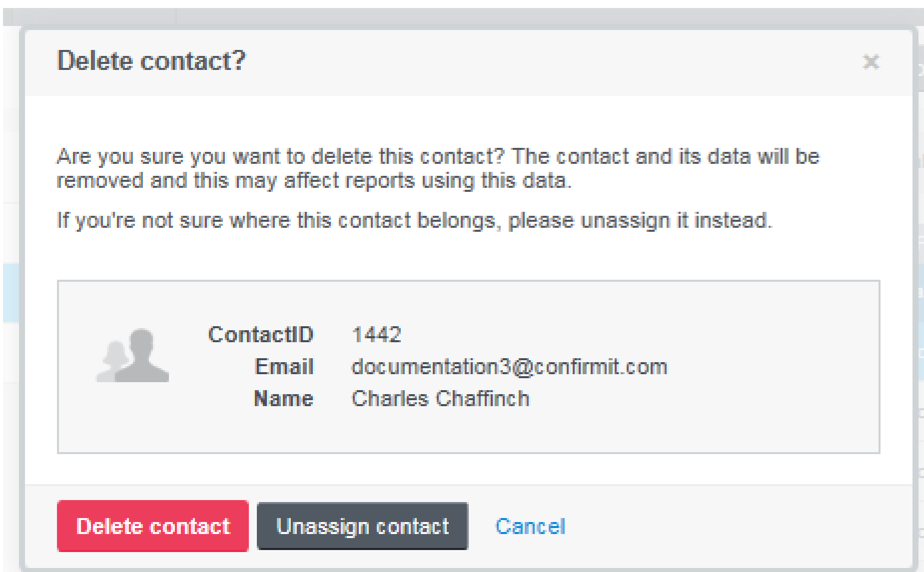

Figure 56 The Delete Contact overlay

Note that if you are not certain that the contact must be deleted, unassign it instead. The contact can then be reinstated later if necessary.

2. Click **Delete Contact**, **Unassign** or **Cancel** as appropriate.

4.12. The Audit Log

All operations on the hierarchy and contacts are logged in an audit log. As a user with access to the entire hierarchy, you can export this audit log to and Excel®[6] file.

[6]The word Excel®, as used in the Forsta Plus GUI, is a registered trademark of the Microsoft Corporation.

In the hierarchy Design page, click on the cog wheel for the hierarchy and select **Export log**.

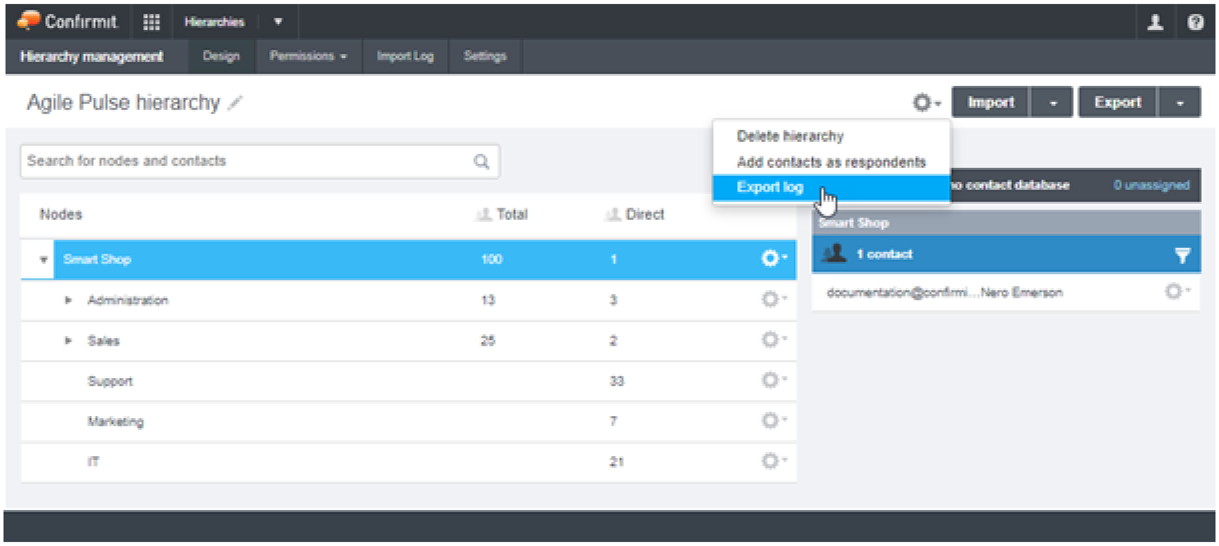

Figure 57 Exporting the audit log

An "Open or save..." message box opens across the bottom of the window; proceed as appropriate.

4.13. The Hierarchy Settings

The hierarchy has a number of properties gathered on the Hierarchy Settings page. To open this page, click the **Settings** tab in the toolbar.

The Hierarchy Settings page opens.

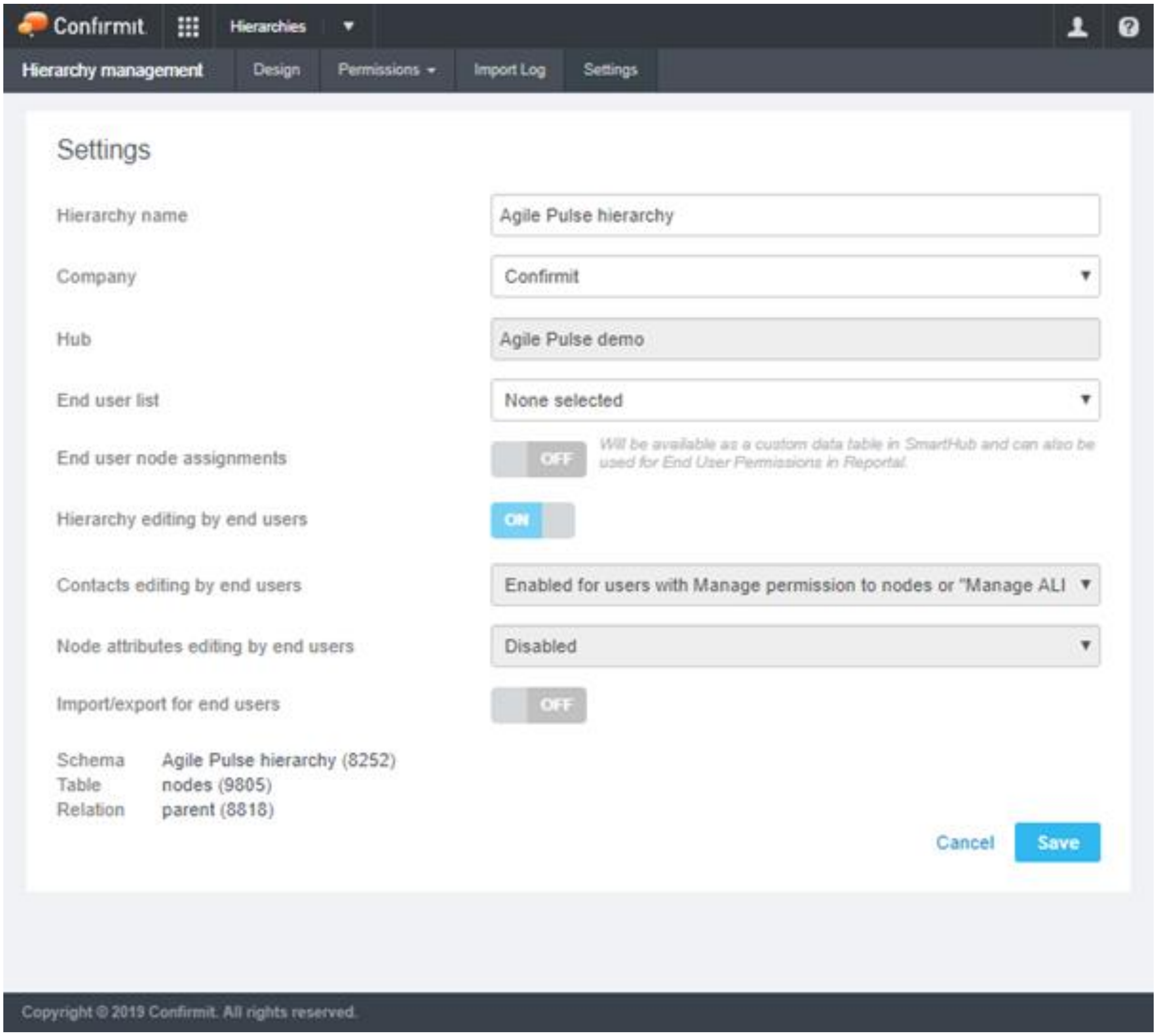

Figure 58 The Hierarchy Settings page

The properties are as follows:

- **Hierarchy name -** the name of the hierarchy you are working with. To change the name, click into the field and edit as required. This can also be changed directly on the Design page.
- **Company -** in the event you have access to more than one company then this field will be displayed and you can select the company that you wish to work with. If you only have access to your own company then this field will not be visible.
- **Hub -** the Hub a hierarchy is assigned to can be set here, if it is not set on creation of the hierarchy. Once set, this can not be changed.
- **End user list -** set the End User list that is to be used for assigning end users permissions to the hierarchy, from the end user lists assigned to the hub the hierarchy belongs to.
- **End user node assignments -** switch on to show the End User tab in the Contacts list (go to End User Node Assignments on page 45 for more information). Note that if you switch this property off, then you will delete any existing node assignments.
- **Nodes & contacts editing for end users -** allows locking the hierarchy for further editing by end users. Can be useful to prevent further editing of the hierarchy once a survey is live.

- **Contacts editing by end users -** controls whether end users are allowed to edit contacts data and delete contacts, and what type of end users that have this capability:
  - **Disabled -** no end users will be allowed to edit contacts data and delete contacts.
  - **Enabled for users with "Manage ALL" only -** only end users with permission to manage the entire hierarchy (for example HR) will be allowed to edit contacts data and delete contacts.
  - **Enabled for users with Manage permission to nodes or "Manage all" -** all end users that have permission to manage hierarchy, either on specific nodes, or the entire hierarchy, will be allowed to edit contacts data and deleted contacts for the branches they have manage permission on.
- **Node attributes editing by end users -** controls whether end users are allowed to edit or delete node attributes, and what type of end users that have this capability:
  - **Disabled -** (default) no end users will be allowed to edit or delete node attributes.
  - **Enabled for users with "Manage ALL" only -** only end users with permission to manage the entire hierarchy (for example HR) will be allowed to edit or delete node attributes.
  - **Enabled for users with Manage permission to nodes or "Manage all" -** all end users that have permission to manage hierarchy, either on specific nodes, or the entire hierarchy, will be allowed to edit or delete node attributes for the branches they have manage permission on.
- **Import/export for end users -** If end users are allowed to edit node attributes (see Node attributes... above), then this option becomes active and controls whether end users are allowed to import and export the hierarchy definition.
- **Scripting information -** provides names and ids of the underlying database schema, table and relation of the hierarchy. These are used to refer to the hierarchy in scripting functions in script nodes in surveys, scripts in Data Processing rules or Reportal scripting.

5. Add Contacts as Respondents to a Survey

If you have used the Hierarchy Management tool to manage contacts assigned to the hierarchy, you can upload respondents from your contact database to a survey as a respondent list directly from Hierarchy Management.

To do this, click the cog-wheel icon towards the upper-right corner of the page and select **Add contacts as respondents**.

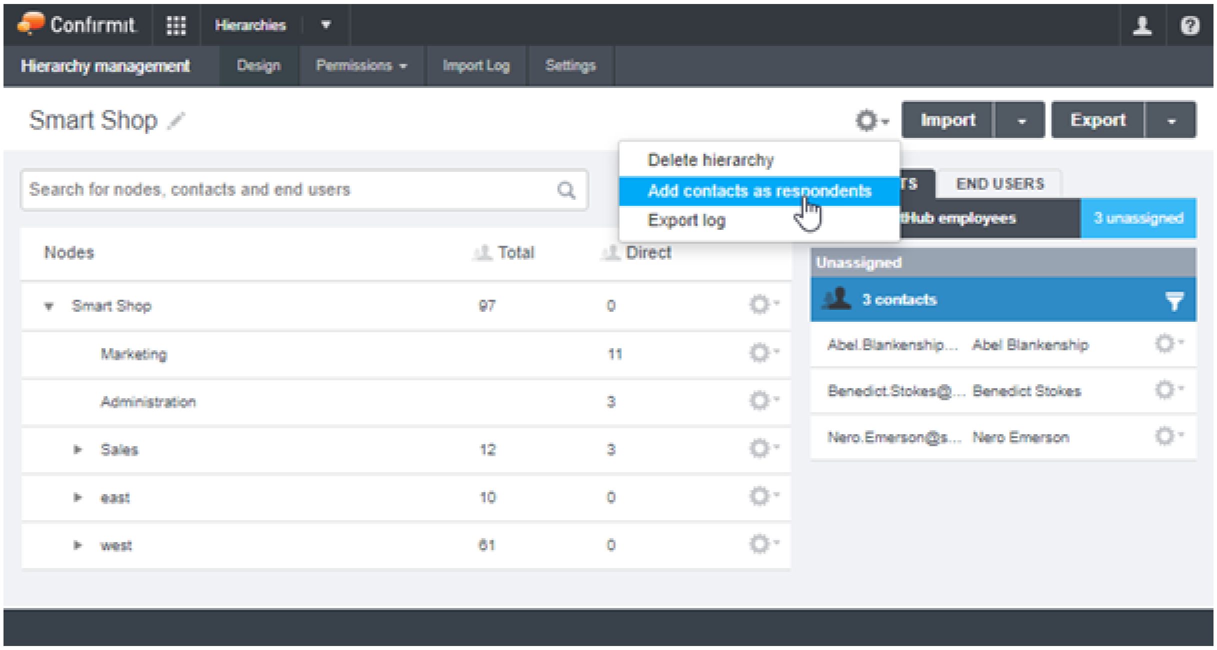

Figure 59 Adding contacts as respondents

The Add contacts as respondents overlay opens. Here you select one of the surveys in the same hub as the hierarchy and contact database, which respondents will be uploaded to. If there are no surveys in the hub, you will be informed that no surveys are available.

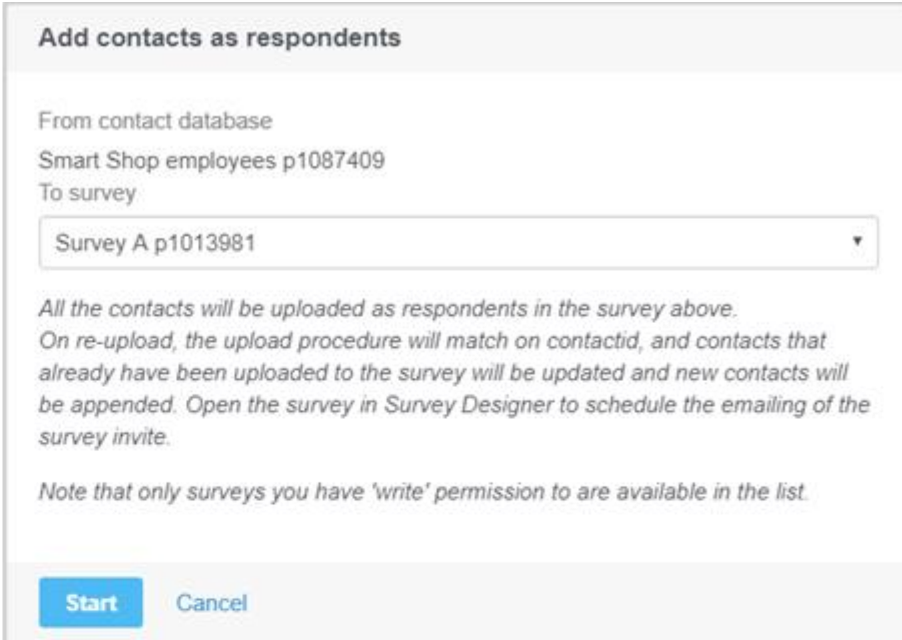

Figure 60 The Add contacts as respondents overlay

Select the survey, and click **Start** to start the upload. This will run a task in the background, that will take all contacts (along with all contacts data) from the contact database and upload them as respondents to the survey.

The upload will be done as a “merge”, so if contacts have been uploaded before, it will update existing contacts (matching on contact id), and insert new contacts into the contact database. Therefore it can also be used to update the respondents in the survey if the contact data has changed, or the contact has been moved to a different node. Note that background data in the survey will not be updated, so if a respondent has already started answering, the background data in the survey will not be updated by running the respondent upload from Hierarchy Management.

6. End User Node Assignments

A hierarchy is often used for managing a set of business users that belong to particular nodes, for example managers of units on different levels inside an organizational hierarchy. In report dashboards, you may want to assign these business users to hierarchy nodes to control what results they will be able to see in reports ("role-based reporting").

Reporting solutions such as Active Dashboard and Reportal have local end-user report permission settings that allow each end user to be assigned to a hierarchy node when conducting role-based reporting. However there are a number of benefits associated with assigning end users to nodes in the hierarchy in the Hierarchy Management module instead:

- If the associations are made inside Hierarchy Management, these assignments can be managed centrally:
  - Node assignments can be defined once in Hierarchy Management, and used across many reports.
  - You avoid assigning and updating these assignments locally in each report.
- The Hierarchy Management interface provides a simpler and more efficient user interface for making these assignments manually or through file uploads.
- With an add-on providing end users with the ability to manage the hierarchy, it is also possible to offload the management of the node assignments to business users who do not have a Professional User ID to Forsta Plus.

6.1. Enabling End User Node Assignments

A hierarchy must be associated with a hub and an end user list to do end user node assignments (go to The Hierarchy Settings on page 40 for more information). With those set, end user node assignments can be turned on with a switch in the Hierarchy Properties overlay.

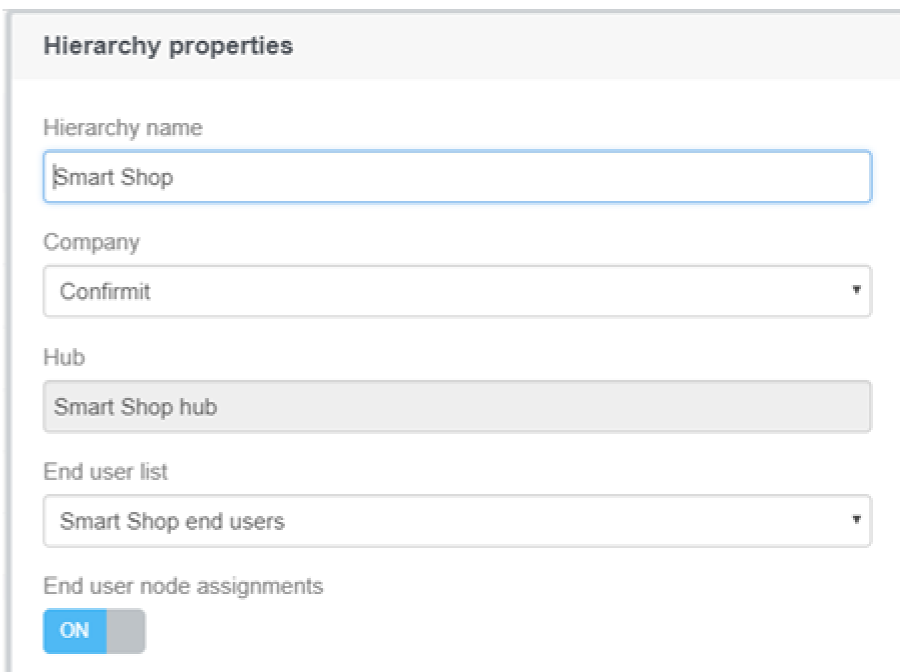

Figure 61 The Hierarchy Properties overlay

6.2. Setting End User Node Assignments

When the Hierarchy is set up with End User Node Assignments, End Users will appear on the right side of the hierarchy. For a hierarchy with contacts, this will be a separate tab next to the Contacts tab.

To associate an end user with a particular node:

1. Select the node in the hierarchy.
2. Click the **+** icon on the right side under End Users.
3. Select one or more end users and click **Add users**.

To remove an end user assignment from a node:

1. Select the node in the hierarchy
2. Click the **X** icon on the right side of the end user's name.
3. Click **Remove end user assignment** to confirm.

Assignments between end users and hierarchy nodes is many-to-many: An end user may be assigned to multiple nodes (for example a manager may be responsible for multiple units), and a hierarchy node may have several end users assigned (several business users would be able to see results related to a particular node).

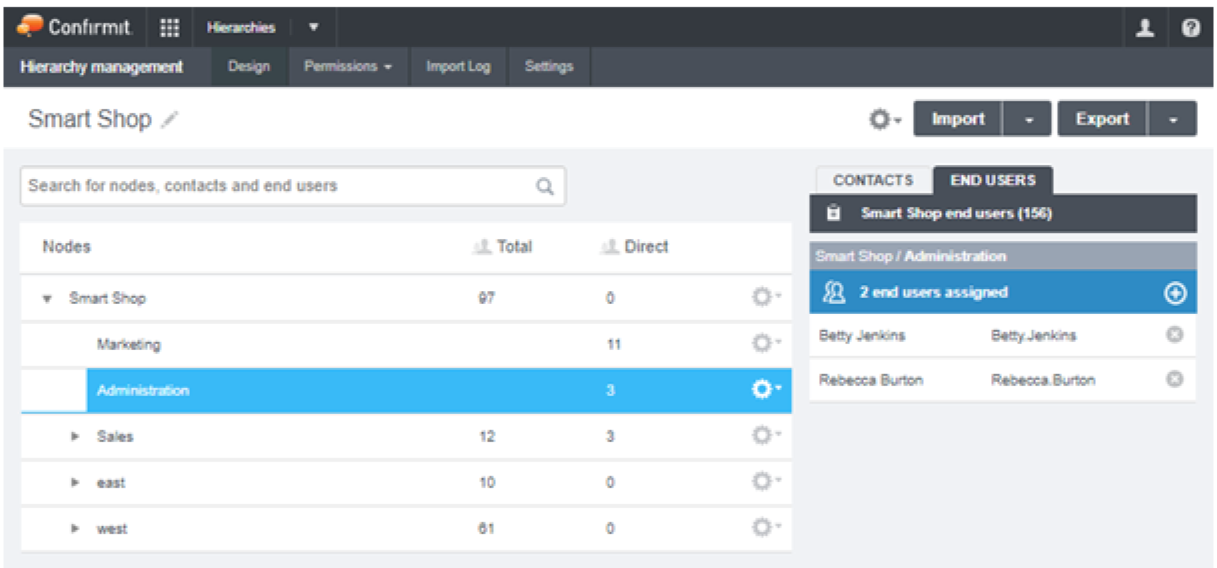

Figure 62 Setting End User Node Assignments

End User Node Assignments can be modified by Professional Users or End Users with Manage permission to the entire hierarchy.

6.3. Uploading End User Node Assignments

To set node assignments for multiple end users in one operation, you can import an Excel file. This is available for Professional Users with manage permissions only.

1. In the **Import** menu, select **End user assignments**.

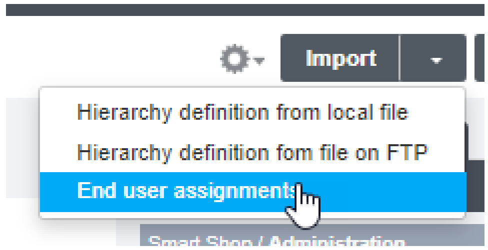

Figure 63 Selecting End user assignments

If you would like a template based on current assignments, you can download an Excel file with existing node assignments.

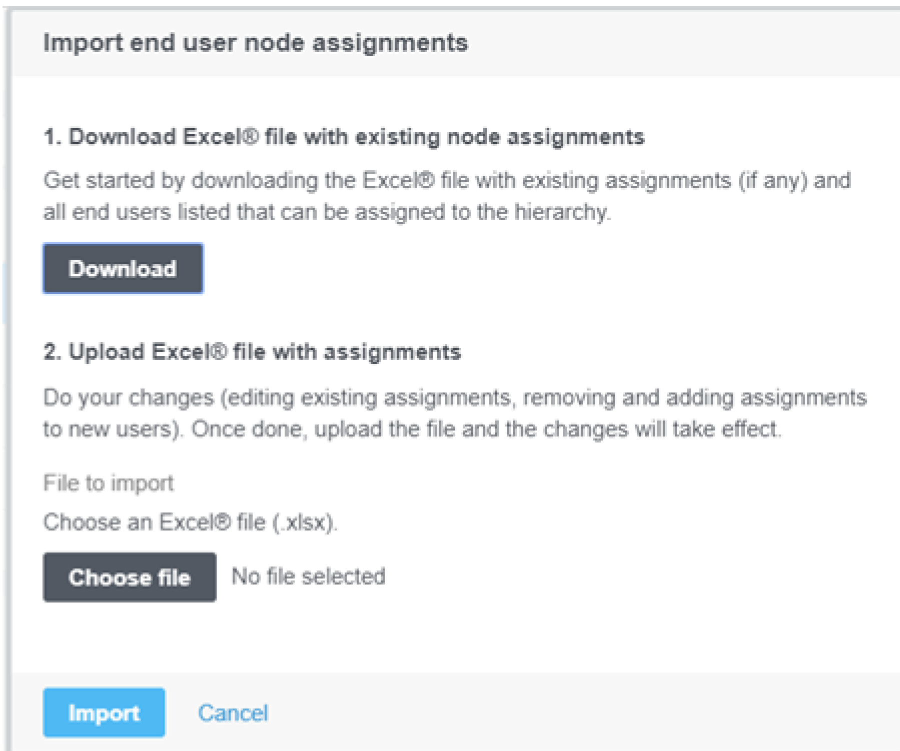

Figure 64 End User Node Assignments import overlay

2. Update the Excel file adding the ids of the end users that should be assigned to a specific node in the "Assignments" column. If you are unsure about the ids, the full list of end users is given in the "End users" tab. Use comma between the end user ids if you assign several end users to the same node. Nodes with no assignments can be left blank, or you can remove the row from the Excel file..

A	B	C	D	E	F
Node ID	Node Label	L1:	L2:	L3:	Assignments
1	art Shop	Smart Shop			
10	Marketing	Smart Shop	Marketing		Amy.Rivera,Shirley.Hicks
12	Administration	Smart Shop	Administration		Betty.Jenkins,Rebecca.Burton
14	Finance	Smart Shop	Administration	Finance	Amy.Rivera,Betty.Jenkins
15	Legal	Smart Shop	Administration	Legal	Shirley.Hicks
16	HR	Smart Shop	Administration	HR	Katherine.Lawrence
13	Sales	Smart Shop	Sales		Amy.Rivera,Betty.Jenkins,Philip.Cook
17	Europe	Smart Shop	Sales	Europe	Jose.Scott,Wayne.Holmes
18	US	Smart Shop	Sales	US	Brian.Richards,Irene.Brown
19	Operations	Smart Shop	Operations		Rebecca.Burton
9	Support	Smart Shop	Operations	Support	Betty.Jenkins,Jennifer.Andrews,Joshua.Ferguson,Wayne.Holmes
11	IT	Smart Shop	Operations	IT	Jennifer.Andrews

Figure 65 End User Node Assignments import file

3. Save the file, click **Choose file**, locate the file, click **Open** and then **Import**.

If the upload fails, you will get validation errors and the ability to download a validation file where problematic data has been highlighted. If the import runs successfully the hierarchy will be updated with the new end user node assignments.

6.4. Using End User Node Assignments in a Reportal Report

To use the end user node assignments from Hierarchy Management in a Reportal report, the report must be set up with a 'Personalized filter question' referencing a hierarchy question that is set to use the hierarchy you have set end user node assignments on. Refer to the separate Reportal User Guide for details on creating and setting up reports.

Once this is set up correctly, in Reportal you can do the following to use End User Node Assignments from Hierarchy Management instead of local end user permissions:

1. In Reportal, in the report, open **Permissions > End User Permissions**.
2. Enable **Node assignments from Hierarchy Management**, and click **Sync** to trigger the initial load.

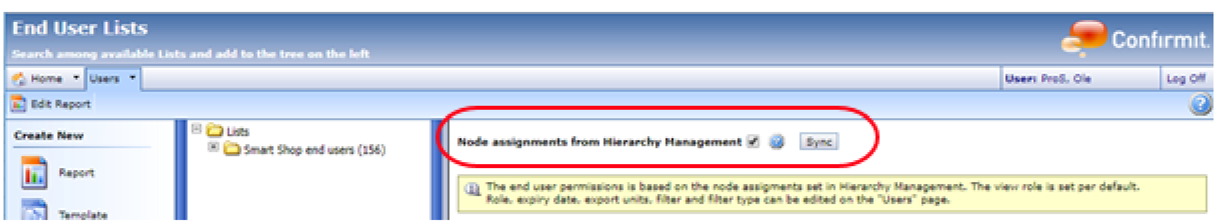

Figure 66 Enabling Node assignments from Hierarchy Management on a Reportal report

Once this option has been enabled, the node assignments are locked in the report and can only be edited from Hierarchy Management.

The node assignments from Hierarchy Management are automatically synchronized to End User Permissions as long as “Node assignments…” is enabled. This usually only take a few seconds or two, but if it is delayed you can also trigger a manual synchronization by clicking the **Sync** button.

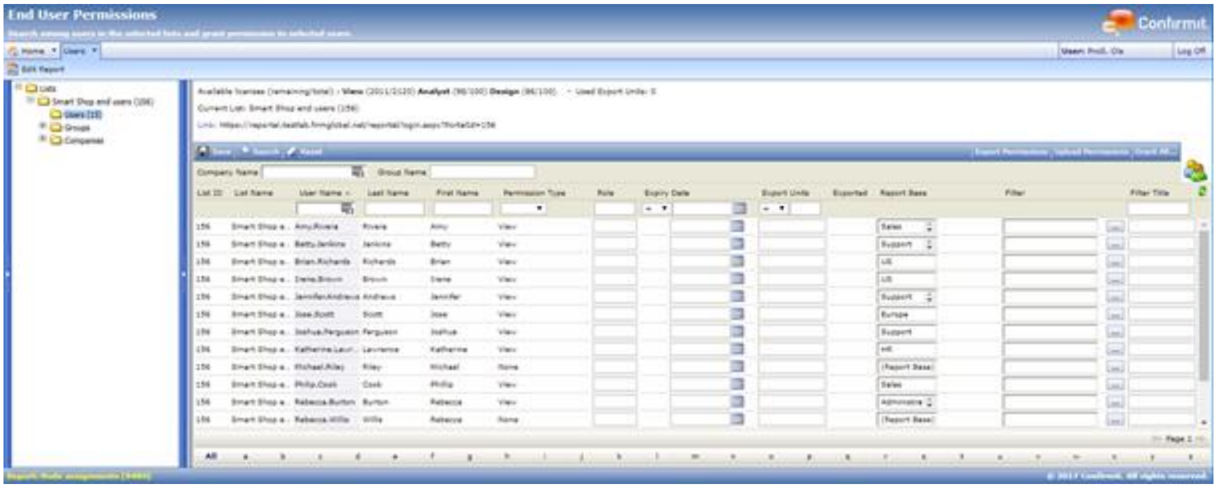

Figure 67 End User Permissions with "Node assignments from Hierarchy Management" enabled

As a consequence of report permissions being controlled from Hierarchy Management, the "Permission Type" and "Report Base" settings can now not be changed from the report. If you wish to remove or add view permission or change the report base, you will now have to go to Hierarchy Management.

"Role", "Expiry Date", "Export Units", "Filter" and "Filter Title" are report-specific and can still be set in end user permissions. They can also be updated through "Upload Permissions" (permission type and report base will be ignored in these imports).

7. Limitations and Restrictions

Although the hierarchy management module has few built-in limits, it has been tested to support hierarchies up to a certain size, and users should not go beyond those limits without first consulting with Forsta.

The hierarchy management module supports hierarchies up to:

- 15 levels
- 50 000 nodes
- 500 000 contacts

Values for node ids must be unique across hierarchy, and can consist of alphanumeric characters (a..z, A..Z, 0..9) and underscores (_) only. Node ids are case insensitive and will be stored as lower case. The maximum length of a node id is 50 characters.

Values for labels can include any type of letters (including Unicode), digits, white spaces (tabs, space etc.) and any of these characters: .(){}[]%\/@&+-:'^. The maximum length of a node label is 255 characters.

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