Vodafone Operator Console V3

User Manual

Version 0.1

Table of Contents

Operator Console V3

Operator Console V3

List of Tables

List of Figures

Operator Console V3

Operator Console V3

Operator Console V3

1. Introduction

This document is the User Guide for the Vodafone Operator Console end-point application. Its intended audience consists of individuals interested in knowing how to use the application.

1.1. Summary

The document structure is as follows:

- **Chapter 1:** Introduction;
- **Chapter 2:** What is Vodafone Operator , a short description and its requirements;
- **Chapter 3:** Getting started;
- **Chapter 4:** Features walkthrough, with comprehensive details about each feature;
- **Chapter 5:** Handling calls use cases;
- **Chapter 6:** Ease of Access**;**
- **Chapter 7:** Troubleshooting.

2. What is Vodafone Operator Console?

Vodafone Operator Console is part of the One Net service. It is designed for phone operators who connect calls to company contacts using their PC.
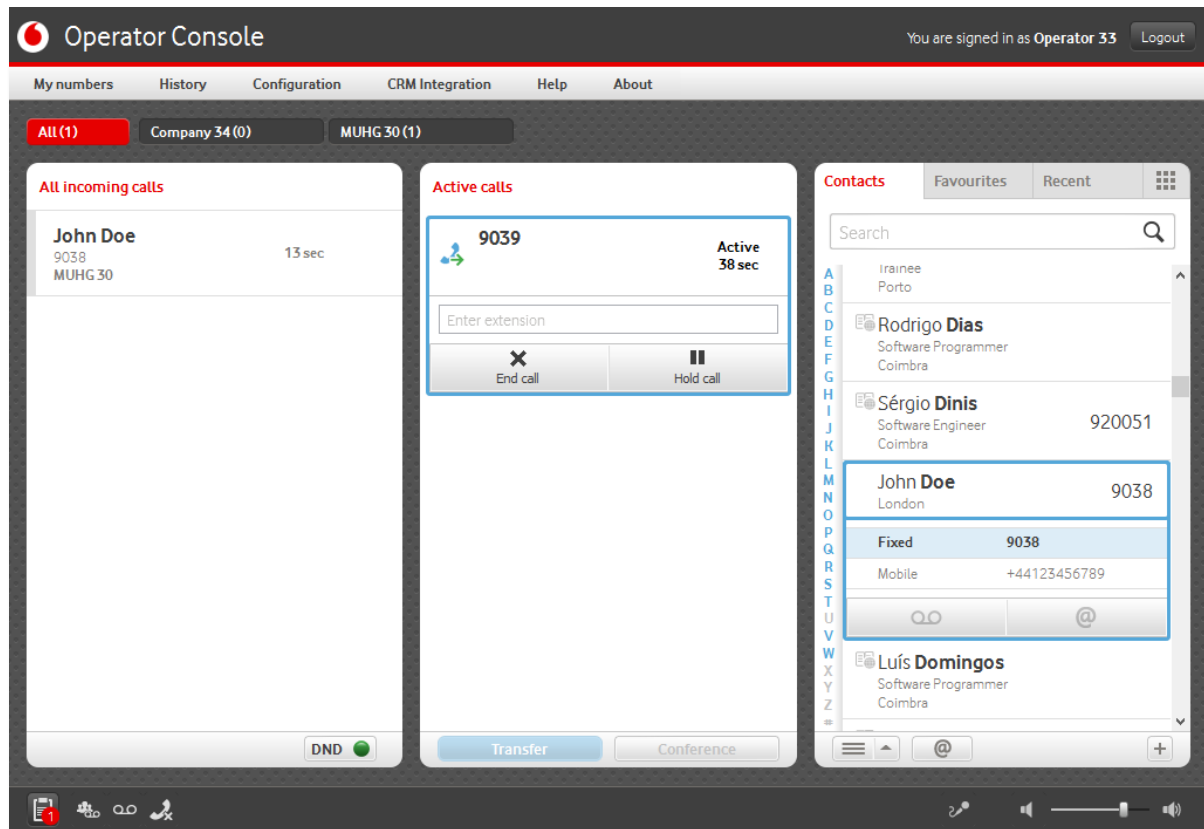
Figure 1: Vodafone Operator Console main window

It enables collaborative and real time monitoring over queues of calls with enriched information, as well as controlling the calls arriving to the service.

2.1. Vodafone Operator Console OS Support

The Vodafone Operator Console is compatible with the following operating systems:

- Microsoft Windows 7, 8.1 and 10

Most aspects of the user interface are designed to be re-used across multiple operating systems. Notable exceptions to this rule are window's frames and the used fonts: all windows will use native frames instead of customized ones to allow a better experience and take full advantage of any OS optimizations; different fonts might be used across operating systems whenever doing so improves readability.

The application's main window is the only resizable window and will provide the canvas for most of the remaining windows - most application windows will be shown inside the main window.

3. Getting started

This section will guide you through the steps necessary to setup and use Vodafone Operator Console for the first time.

Before getting started:

- ✓ Ensure your PC can run Operator Console (see 7.1.1);
- ✓ Obtain the most recent installation package from a trustworthy source (see 7.1.2);
- ✓ Ensure you have enough permissions to install Operator Console on your PC (see 7.1.3);
- ✓ Make sure your PC has connectivity to Vodafone One Net service (see 7.1.5).

3.1. Installing Vodafone Operator Console

If you have an installation package for your operating system, the next step is to proceed with the software installation.

On Windows operating systems, the installation package consists of a single Windows Installer (.msi) file providing a simple and intuitive installation wizard. The installation steps displayed in Table 1 are summarized below:

1. **Welcome:** a brief introduction to the installation wizard;
2. **Application Configuration:** language settings configuration;
3. **Installation directory:** choose a location for the files being installed;
4. **License Agreement:** required license agreement acceptance
5. **Installing:** files and settings installation progress;
6. **Completion:** final notes about the installation, including an option to launch the application.

Table 1: Windows Installer workflow
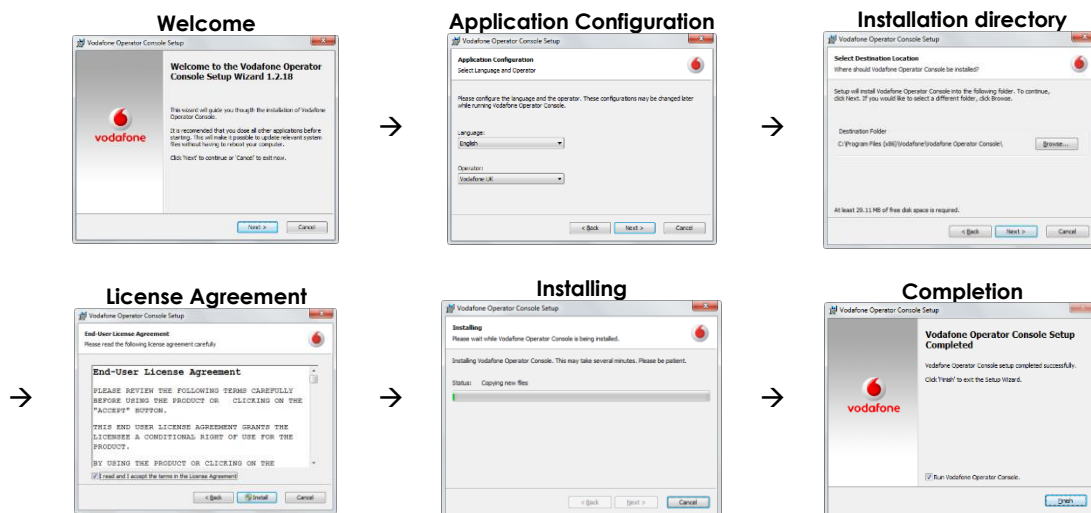
Make sure you <u>select "Vodafone UK" as your operator</u> in the Application Configuration screen.

If you are installing Vodafone Operator Console for the first time, or you are installing it on a new PC, then you should <u>consider reading section 7.4.1.1 before continuing</u>.

Operator Console V3

3.2. Logging in

Once you have launched Vodafone Operator Console you will be presented to the Login screen (see Figure 2) where you can use the credentials you have received. If you do not have credentials yet, please contact Vodafone Customer Service.

Figure 2: Login screen

Just enter your Vodafone user name and password and click "**Log In**". This will trigger the login procedure and configure the application according to your personal settings.

The Login screen (see Figure 2) also provides options to configure the behaviour for yet to come logins. These options are configurable through checkboxes and they are dependent in a way that only lets you to check one of them if all the previous are checked. The options are three:

1. **Remember me:** when the user logs in successfully the user name is saved. Next time the Login screen is shown the User name field will be already filled with the saved username. The last saved user names can also be accessed by pressing an arrow next to the username field;
2. **Remember password:** this will not only save the user name for future logins, but also the password;
3. **Log in automatically:** if checked, the current credentials will be used to login automatically each time the application is launched.

To change these settings in the future, disable them before logging in. After Signing Out from the application, if the "**Remember Me**" option is disabled, you will need to re-enter the credentials to return to the application.

In case you share your computer with other people, it is strongly recommended that you do NOT use the "**Log in automatically**" and "**Remember password**" options. This will protect your account and avoid identity theft.

It is also possible to configure some application aspects – language, font and network settings (see section 4.5).

Operator Console V3

3.2.1. Logging In

During the login process, the user gets information about the state of the process, an example is shown in Figure 3:
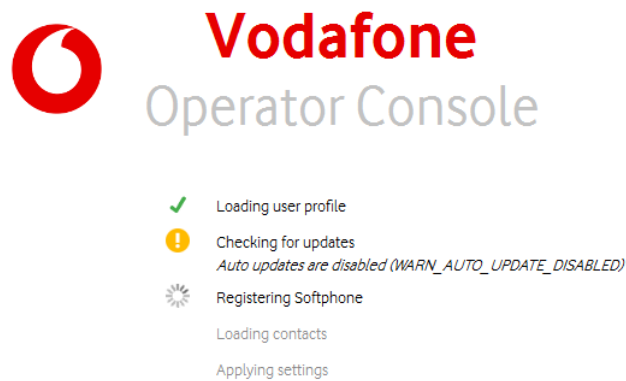
Figure 3: Logging in progress

If any error occurs in a process that does not allow the login, the login screen is displayed again with the error information and the chance to send the application diagnostics by email, or, in case that is not possible, save it on disk (Figure 4).
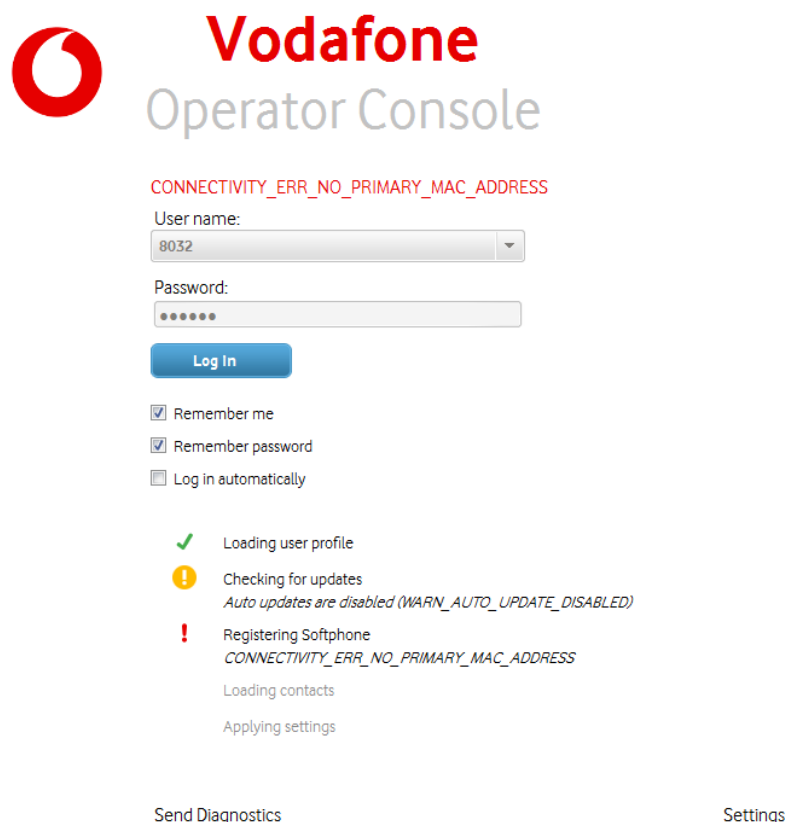
Figure 4: Login process fail

Operator Console V3

3.3. Versions and Automatic updates

You can check the current version of the application directly on the login screen. If you are already logged in, the current version can be checked in a tooltip displayed when your mouse stops over the Vodafone logo on the top left corner of the main window (see Figure 1).

Regular checks for new versions are important, as they can enhance the usability and performance of the application. Vodafone Operator Console will automatically check for updates on each login attempt, and if a newer version is found, you will be prompted to download it. Updates can be either:

- **Optional:** for non-critical updates where the current application version can still be used; or
- **Mandatory:** when the application has to quit if the user decides not to update the current version immediately.
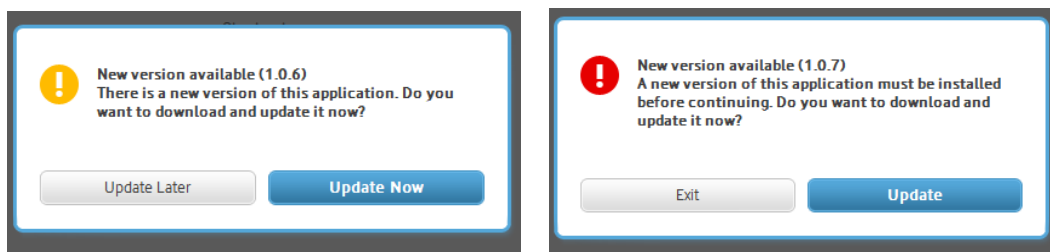
Figure 5: Example for Optional and Mandatory update messages

If you are running the latest version, then no message will be shown and the main application window will appear.

3.4. The main window

When you are logged in, you can use most of the Vodafone Operator Console features from the main window (see Figure 1). It is designed to help you deal with calls and contacts quickly and easily.

In the next section, we will talk you through how this window is organised and how each feature works.

Operator Console V3

4. Features walkthrough

If you managed to sign in successfully into the Vodafone Operator Console application, you will be presented with the main window.

The main window is arranged in the following logical areas/panels:

- **User-Agent area:** displays your name and houses a Logout button;
- **Primary navigation:** a menu bar provides access to additional functionality through a set of menu screens:
    - My numbers: lists available numbers and allows selection of what queues to monitor;
    - History: information about past calls in a log-like format;
    - Configuration: settings customization screen;
    - CRM integration: CRM options
    - Help: access to the program help;
    - About: version information.
- **Queues navigation:** allows both a quick overview over what queues are being monitored and how many calls are being received. Also provides calls filtering functionality;
- **Incoming calls:** houses the list of incoming calls according to the queues navigation filter;
- **Active calls:** list of active calls and features associated with them;
- **Directory / Favourites / Recent / Dial-pad:** a tabbed area which houses the list of contacts, the favourites ones, recent calls and an on-screen dial-pad;
- **Notification area:** access to the error log and voicemail (see section 4.6);
- **Utility Features:** basic audio settings.
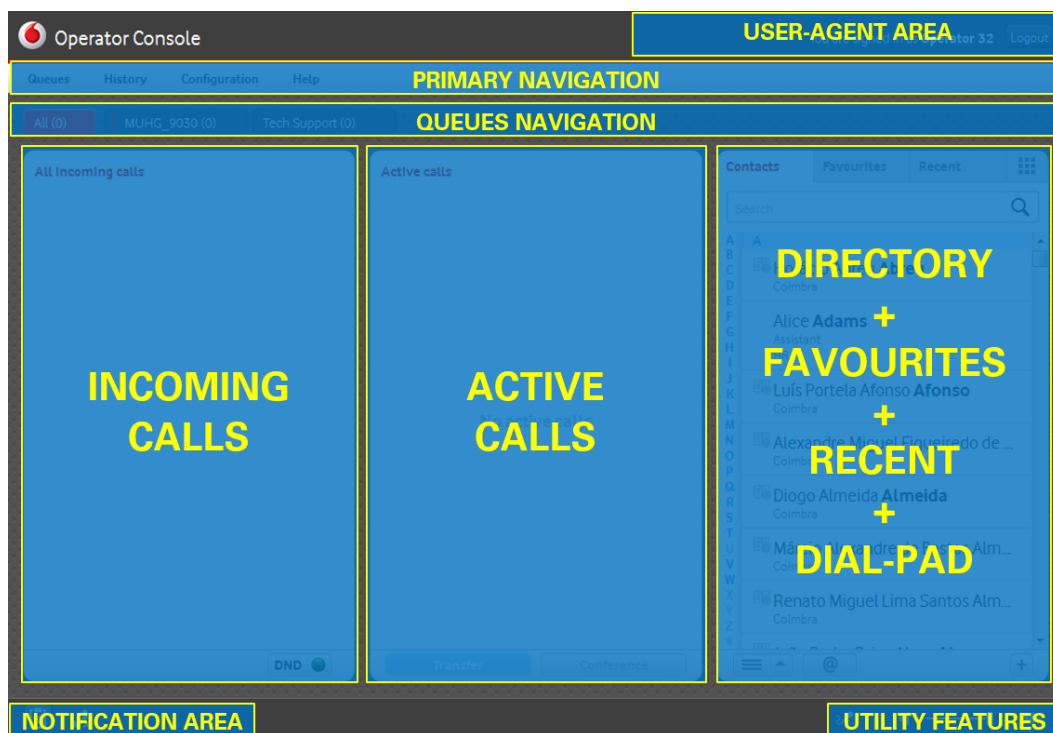
Figure 6: How the main window is organised

As features are presented during this walkthrough, please have in mind the different areas described above in order to more easily understand the given explanation.

Operator Console V3

4.1. Contacts and Dial-pad

The application has support for two different contact sources, seamlessly merged in the "**Contacts**" tab of the right-side panel: (1) Local storage contacts and (2) Corporate Directory.

Both types of contacts can be used to establish calls, identify incoming callers, etc., but while contacts in the local storage are managed by you, Corporate Directory contacts are shared and can be queried by all corporate users.
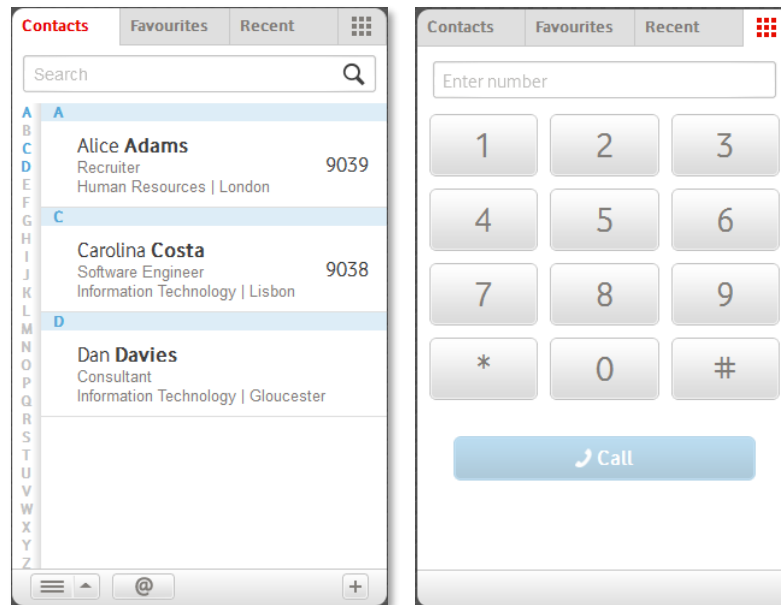
Figure 7: Contacts and dial-pad tabs

Corporate contacts are only displayed when explicitly searched for and can be identified by the icon .

4.1.1. Add contacts

Contacts can be added to the local storage by clicking the ＋ button on the bottom right corner of the contacts tab. Details for the new contact are entered in the window below.
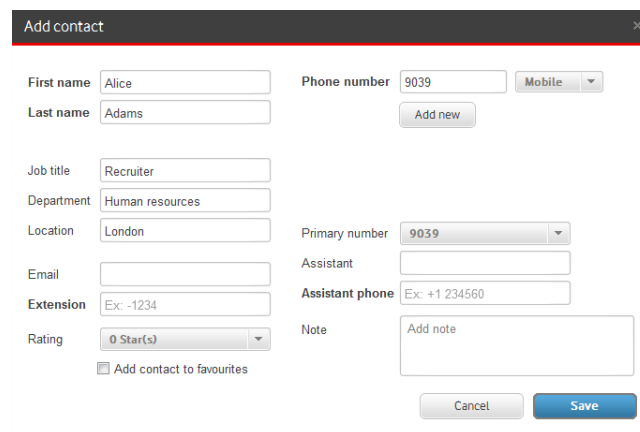
Figure 8: Add contact

Operator Console V3

Once the desired details are entered, pressing "Save" will add the contact to the local storage. Notice that in case you regularly use different devices, the contact will only be available on the device where it was added. i.e., there is no automatic mechanism to synchronize local storage contacts between devices.

The mandatory fields in "Add contact" form are highlighted in bold. Only one of these fields is required for a valid Contact entry. However, note the phone number used by the application for the default UI driven Call management actions (such as, drag the contact into the Active Call window to initiate a call) is the number selected as the **Preferred** number in the Add Contact window.

4.1.2. Import from CSV

The application supports the import of contacts saved in a Comma Separated Values (.CSV) file.
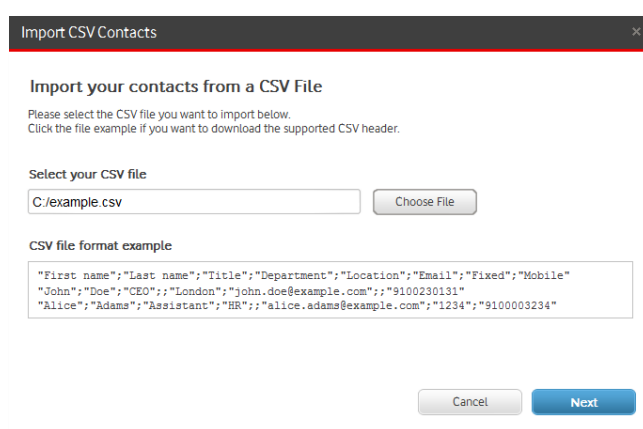
Figure 9: Import contacts from CSV

After selecting a valid file and pressing "Next", the file will be parsed and the user can select which contacts to import:
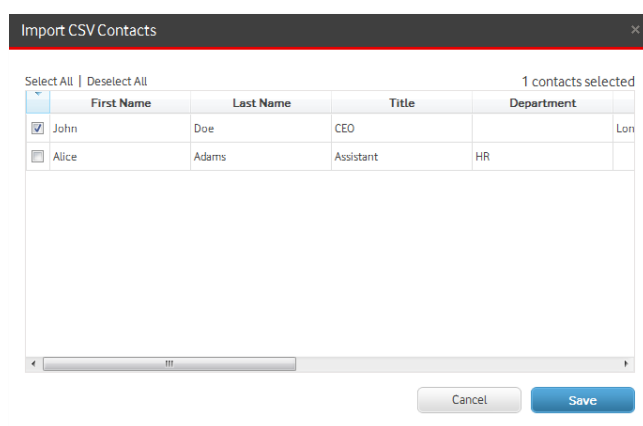
Figure 10: Selecting CSV file contacts

Pressing the "Save" button will finish this operation and start the import process of the selected contacts to the local contacts storage.

Operator Console V3

4.1.3. Manage existing contacts

The contact list displays just enough information to let you visually identify a contact. For each contact – depending on the stored details – the following information is displayed:

- Corporate contact indication (for corporate contacts);
- First and Last name;
- Title;
- Department and Location;
- Extension.

Contacts can be expanded to show all phone numbers. Corporate contacts will only appear when searched for and upon expanding, supported terminals (Fixed and Mobile) will display they Busy-Lamp status.

Contact details are expanded by double-clicking or by pressing Enter when selected.
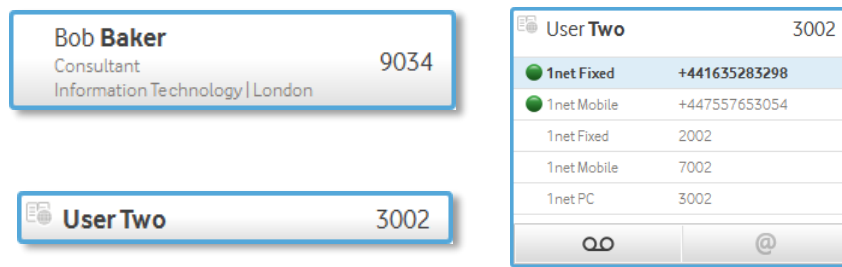
Figure 11: Basic and expanded contact details

When a contact is expanded, the application will fetch availability information for some of its numbers. A busy-lamp icon will appear in-line with the number it refers to, indicating the current availability:

- 🔴 Busy;
- 🟢 Available;
- ⊘ Unknown.

Additional actions over selected contacts are available by pressing the ≡▲ button or with right click on a contact:

- **Expand/Minimize Contact**;
- **Add/Remove contact to/from favourites**;
- **Save as Local** creates an editable copy of the contact in the local storage (corporate contacts only);
- **View contact details** shows all stored details of the selected contact (local contacts only);
- **Edit Contact** information (local contacts only);
- **Delete Contact** (local contacts only).
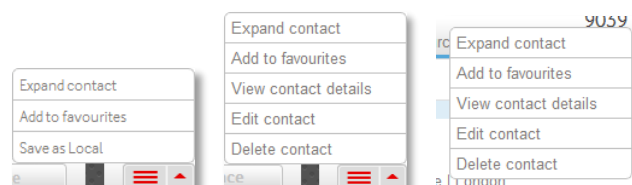
Figure 12: Contact management options

Operator Console V3

4.1.4. Search contacts

It is possible to search contacts by entering any text inside the search field on the "**Contacts**" tab. Results matching the search query will be filtered and presented to you.
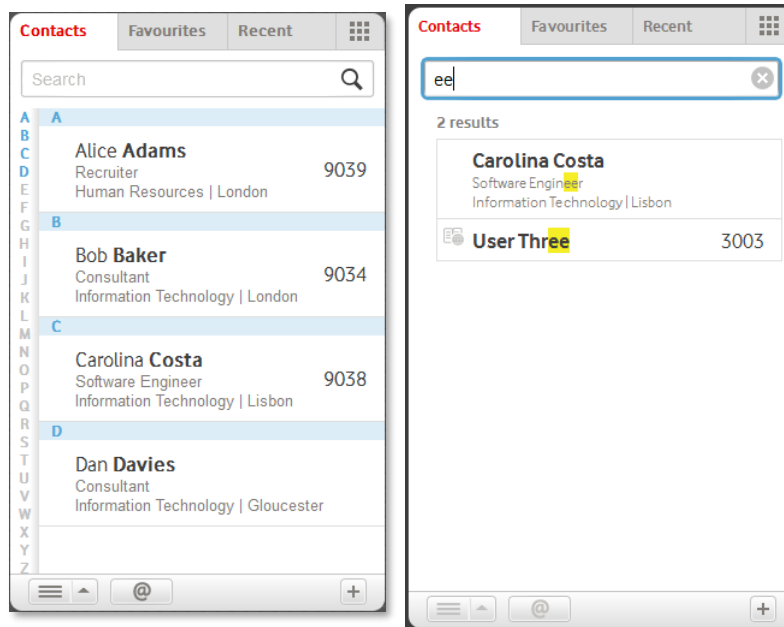
Figure 13: Contacts search example

There is also a more basic alternative to search contacts. Instead of using the search field, the index navigation located on the left of the contacts list can be used to toggle a filter by the first letter in the contact's last name.

4.1.5. Favourite and Recent contacts

A list of frequently used contacts can be stored in order to have direct access to them inside the "**Favourites**" tab. You can add up to nine contacts to the list of favourites, which will be displayed as:

- Busy-Lamp indication (only for corporate contacts);
- First and Last name;
- Primary number;
- Speed dial shortcut.

To add a contact to the list of favourites, select the "Add contact to favourites" checkbox when you add the contact (see Figure 8) or select an existing contact and expand the contact management options to add it (see Figure 12). The ⊞ button opens the add contact window with the "Add contact to favourites" checked by default. Favourites can be removed by pressing the ⊟ button.

Once a contact is added to the favourites, it is possible to change the primary number that will be dialled when the speed dial is triggered for that contact.

Corporate contacts will also present a busy-lamp indication if they have at least one terminal with support for that feature (Fixed or Mobile). This is similar to the information displayed when corporate contacts are expanded, but with the advantage that the presence is constantly monitored.

Operator Console V3
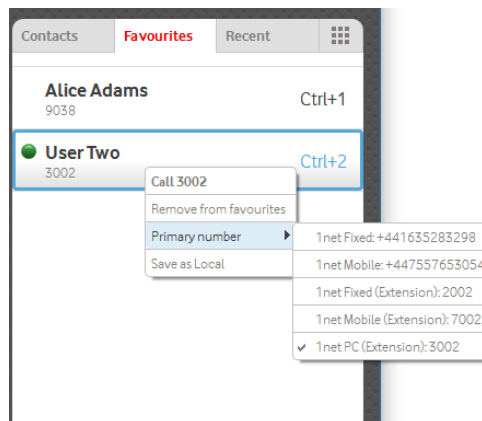
Figure 14: Changing a favourite contact's primary number

The "**Recent**" tab provides a quick view over the most recent calls based on your history log (see section 4.4.1). The buttons at the bottom of the Tab allow you to view by All (incoming and outgoing), Incoming, Outgoing, or the Recent calls list can be cleared. Simply highlighting a call and pressing enter or dragging/dropping into the Active Calls panel will initiate a call from this tab.
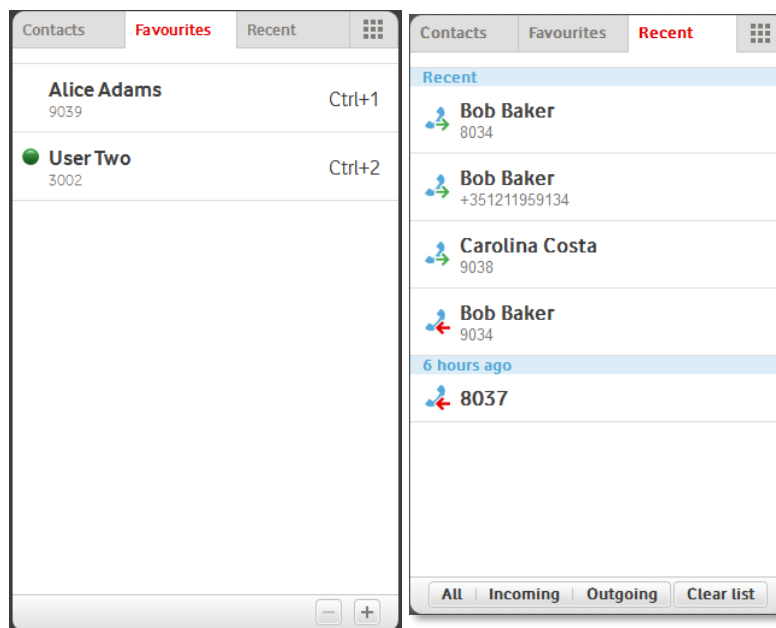
Figure 15: Favourites contacts and recent calls tab

4.1.6. Dial-pad

The dial-pad (see Figure 7) can be used to initiate calls or to send the DTMF signalling required by telephonic services such as automated attendants:

- **Initiating calls** is only possible when there are no active calls, or all active calls are on hold. Make sure you manually hold all active calls then use the mouse to dial the destination number or type it in the text field, then press the [Call] button;
- **DTMF signalling** happens when the dial-pad is used while calls with active media are active. Signalling will be sent to the active call and a key sound is heard when DTMFs are sent.

Operator Console V3

4.1.7. Get in touch with contacts

To call a contact you simply have to drag it from the contacts or favourites list, and drop it on the active calls panel. This action will establish a call to the contact's default number. A double-click over a favourite contact will have the same outcome. Please see section 5.2 for more details.

You can also call the contact's voicemail directly using the ⊙⊙ button

If a contact has an associated email address use, the ▢@▢ button located either on the bottom of the contacts list or in a contact's expanded details and your preferred email application will open with the address filled in.

4.2. CRM integration

Operator Console can integrate with several Customer Relationship Management (CRM) applications.

This integration enables three use cases:

- Searching CRM contacts directly from Operator Console;
- Logging relevant calls to the CRM system;
- Provide click-to-call functionality on the CRM for major web browsers.

As of version 3.0, supported CRMs are:

- Microsoft Dynamics CRM 2016 (version 8.0 of December 2015);
- Microsoft Outlook[1] (2013/2016);
- Salesforce (version 35 onwards);
- SugarCRM (version 7.0 onwards);

Users can manage CRM connections through the "CRM Integration" button on the main window:

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[1] Technically not a CRM, but Operator Console can be used to search contacts and log calls.

Operator Console V3
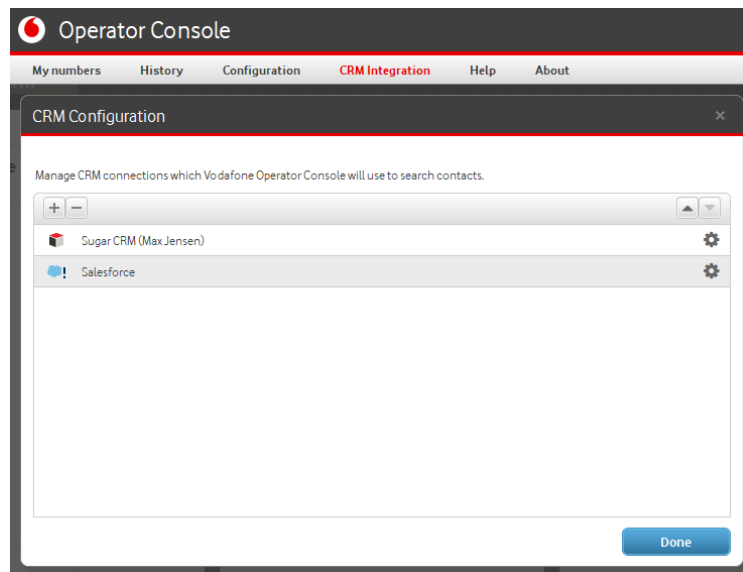
Figure 16: CRM Integration configurations

Here it is possible to add, remove and configure CRM connections:

- ⊞ – Use to add a new CRM integration configuration;
- ⊟ – Enabled when a CRM configuration is selected in the integrations list, and removes the selected integration item;
- ▲ / ▼ – Move the selected CRM configuration up/down for the preferred use order
  - o If a CRM Plugin is correctly configured and active (serviceable), OC is able to use it to search for a CRM Customer based on a phone number; OC will search for information in all the serviceable plugins.

4.2.1. Connecting a CRM account

After pressing the button to add new CRM integration (see ⊞ in Figure 16), the user must choose a CRM provider.
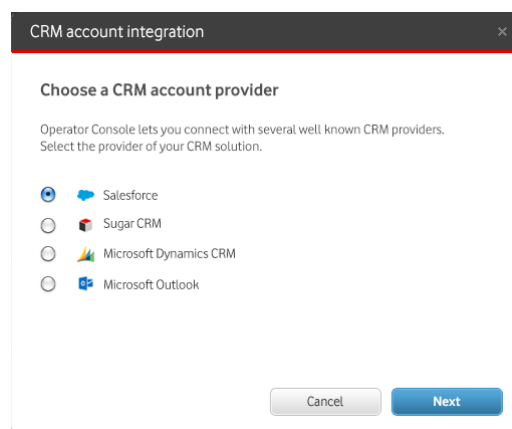
Figure 17: CRM providers selection screen

Operator Console V3

After selecting a CRM provider, the user must provide the information for a valid configuration. Each provider has its own specific configurations, which are described below. Once a provider is configured, the user can modify these settings through the ✿ button (see Figure 16).

Some configurations are common to most providers:

- User defined description;
- Enable/Disable provider (default true);
- Use Click to Call Extension on CRM web pages (default true)
  - With this option enabled, when the User browses the CRM web page, the phone numbers will present a button (🔴) that when pressed starts a call with that number in Operator Console;
- Log calls activity in the CRM server;
- CRM Server URL:
  - If the Operator Console requires an API provided by the CRM provider;
  - May have a default value, or the user can specify a custom one.

Once a correct configuration is provided, most providers will prompt the user to enter valid credentials for the CRM platform.
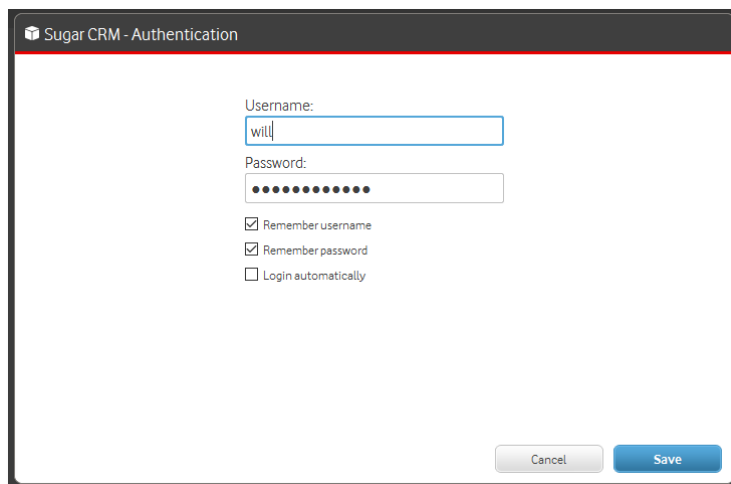
Figure 18: Authentication window for SugarCRM

In the authentication window, users must enter their CRM username and password. Operator Console lets users remember these credentials for later logins; it also offers the option to login automatically in the future, thus avoiding having to open the authentication window manually each time.

Below you can find notes and particularities for some of the supported CRM providers.

Notes on Microsoft Outlook

Unlike other providers, Microsoft Outlook can only be added once. Being a local integration, the only configurations are a description message and enable/disable integration. Additionally, no credentials are required to configure or use it.

Operator Console V3
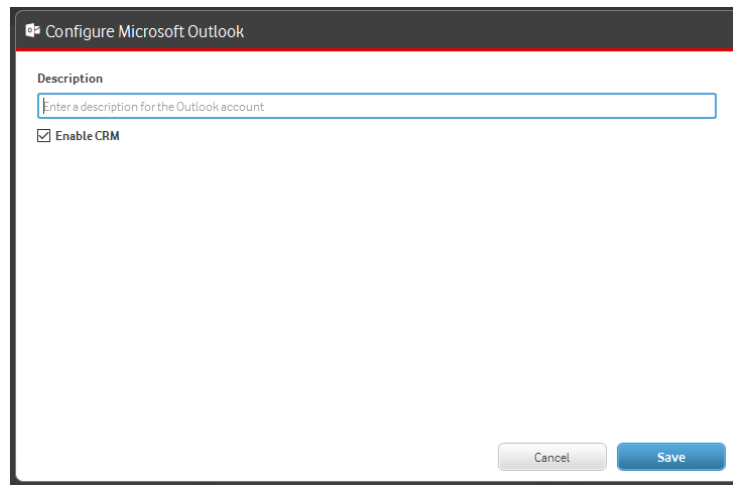
Figure 19: Configuration window for Outlook CRM

Notes on Salesforce CRM

Salesforce CRM requires a license with support for REST API calls. At the time of writing this document, Enterprise and Unlimited licenses have this by default. For other types of licenses, please check with Salesforce support to learn whether it is supported or not.

Depending on the type of license, you might be able to configure and login with your Salesforce account, but no contacts will be available.

Salesforce also requires some extra configurations due to its security restrictions.
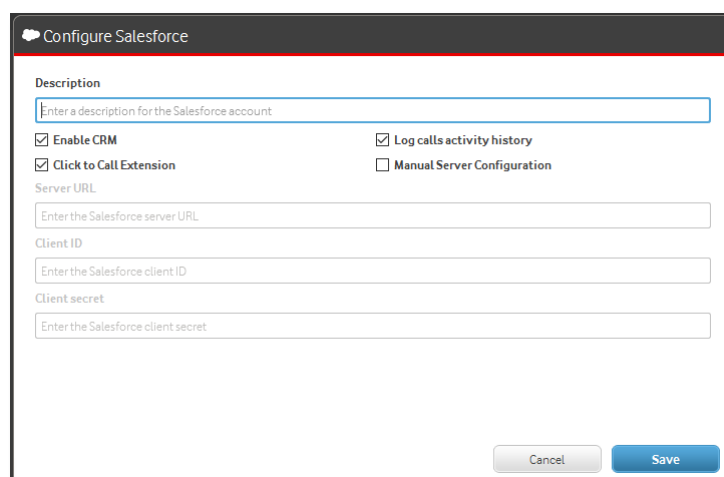
Figure 20: Configuration window for Salesforce CRM

Operator Console V3

On top of the Server URL, users must also enter a Client ID and Client secret that can be obtained/created on the Salesforce administration settings by your Salesforce system administrator after creating a "Connected OAuth application":

- Under the topic **Build** → **Create** → **Apps** in **Connected Apps** create a **New** application
- Enter the required basic information:
    - **Connected App Name:** *Operator Console*
    - **API Name:** *OpsConsole*
    - **Contact Email:** *<aValidEmailAddress>*
- Enable **OAuth Settings** – API
    - In **Callback URL** set:
      `https://login.salesforce.com/services/oauth2/success`
    - In **Selected OAuth Scopes** add at least:
        - Access and manage your data
        - Access your basic information
        - Perform requests on your behalf at any time
- After **Save** the **Consumer Key** (Client ID) and **Consumer Secret** (Client Secret) for the application are presented

In order to authenticate, users must also have a user-specific security token that must be used alongside their CRM password. This security token, if not provided along with the user's first password, can always be recovered/reset at the Salesforce User Settings under the topic **Reset My Security Token**.

Authentication can then be done by entering the user's CRM username and the concatenation of their CRM password followed by the security token. E.g.:

- A user with:
    - Salesforce username: "john"
    - Salesforce password: "secret"
    - Salesforce security token: "token"
- Can connect to OC by using the credentials:
    - Username: "john"
    - Password: "secrettoken".

Notes on Microsoft Dynamics CRM

When configuring Microsoft Dynamics CRM, users must provide not only a Server URL, but also a Client ID.

The Client ID can be obtained after registering an application in Microsoft Azure:

- Go to "**Azure Active Directory**" > "**App registrations**" > "**New application registration**";
- Create App:
    - Name: "Vodafone Operator Console";
    - Application type: "Native
    - Sign-on URL: <any valid URL. E.g. https://www.vodafone.com>"
- After creating, in the application's "Required permissions", grand permissions for "Windows Azure Active Directory" and "Dynamics CRM Online".
- Copy the application's "Application ID" and use it as "Client ID" in OC's configuration screen.

Operator Console V3

4.2.2. Use of CRM customer information

CRMs customer/contact information is mainly used to enrich/improve two use-cases:

1. Call parties' information;
2. Contact searches.

Call parties' information

When Operator Console receives a call from a number that is not restricted, it will try to find a matching contact not only on the local contacts added by the user, but also in the configured CRM providers.

If a contact is found, the call information is updated with the contact name. A representative icon will also appear to indicate which provider(s) matched the number:

- 🗔 – Sugar CRM
- ☁ – Salesforce
- 📊 – Microsoft Dynamics CRM
- 📧 – Microsoft Outlook

In case of a match, the user can right-click the incoming call and select "Show in CRM" to view the contact information directly on CRM provider web page.

Additionally, in case a CRM contact was matched and if the user chose to "Log call activity history" in the CRM provider configuration, then when the call ends, basic information will be sent to the CRM provider in order to log the call there.

Contact searches

Searching for CRM contacts can be done in the same way as searching for local contacts.
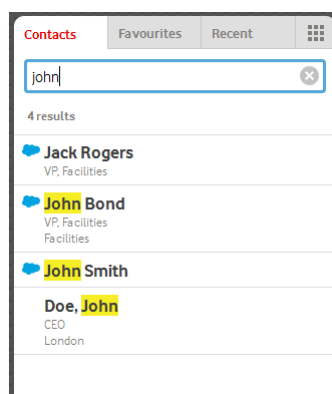
Figure 21: Searching CRM contacts

As the figure shows, CRM contacts will appear together with local contacts and can be identified by the CRM provider icon.

Operator Console V3

4.3. Incoming calls

Incoming calls appear in the Incoming Calls panel ordered by arrival time. Displayed calls can be either queued on a monitored number or ringing on your Vodafone Operator Console number.

The following information is shown for each incoming call:

- Originator's name and phone number for known callers, otherwise only the number, or "Anonymous" for callers with restricted number identification;
- Name of the queue where the call is queued;
- Elapsed time since the call arrived;
- Call priority, ranging from zero to three stars;
- "Ringing" indicator for direct calls;
- A time threshold indicator that turns red when the elapsed time passes a configurable value;
- For incoming calls, there is a Reject option once the call is selected or hovered (see 4.3.3 for more details).

Figure 22: Incoming Calls panel

When the application is minimized – and if configured to do so – incoming calls are shown in a notification window. <u>It is recommended to minimize (aka Iconize) the Operator Console while working on other tasks</u>. This will ensure you are able to see the incoming caller IDs and makes it harder to miss calls due to distractions.
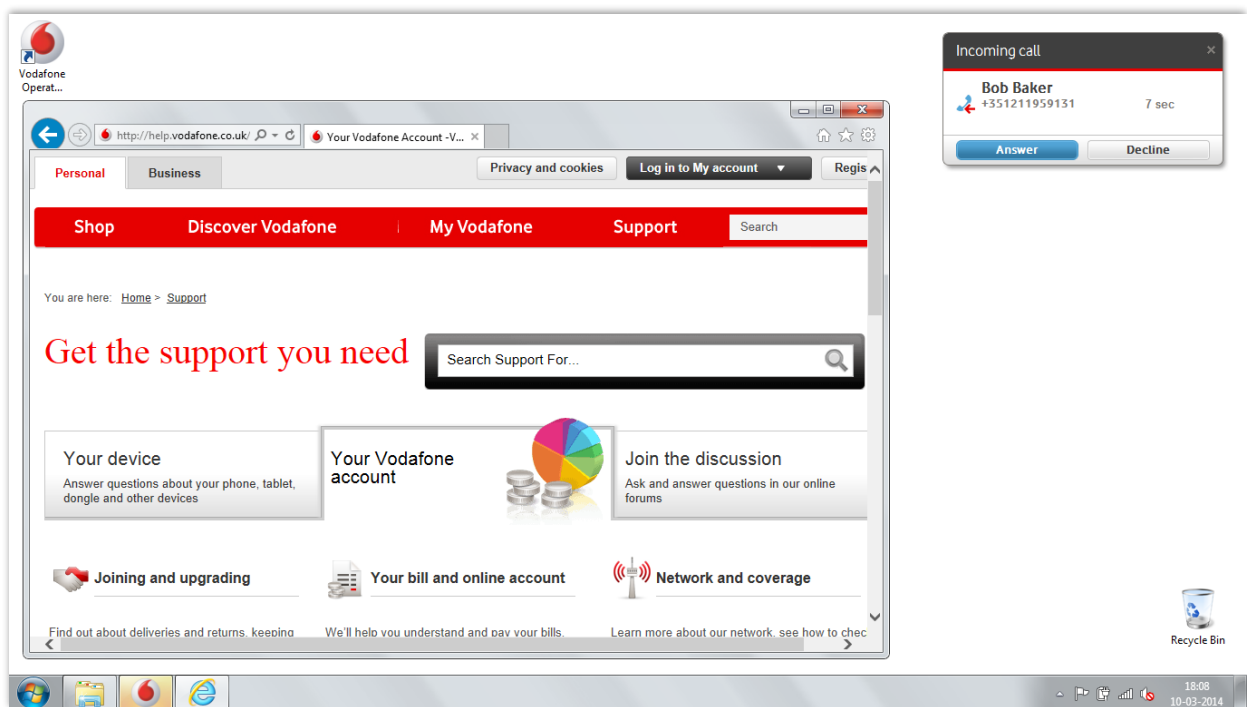
Figure 23: Incoming Call notification (when application minimized)

The **Show popups when the application is minimized** flag in the Warnings tab, under the Configurations menu, ensures an OC pop-up is shown in the Windows foreground whenever an incoming call arrives while the OC application is minimized (this is set by default).

Operator Console V3

4.3.1. Incoming calls navigation

The Queues Navigation panel can be used to filter calls in a specific queue or calls ringing.
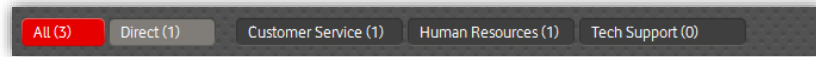
Figure 24: Queues navigation panel

Filters are displayed according to the following structure:

- The leftmost filter will let you see "**All**" incoming calls (see Figure 24);
- Immediately to its right it may appear a "**Direct**" filter, for calls ringing on your Vodafone Operator Console number. These dynamic filters will only be displayed if there's at least one call that matches its criteria:
  - **Direct**: for calls ringing on your Vodafone Operator Console number;
  - **Parked**: for calls parked by the user or someone in its park group;
  - **Ignored**: rejected queue calls or ignored in configuration (see section 4.5.3);
- Finally, a filter for each hunt-group[2] and monitored queue will appear on the right to let you see only incoming calls from that specific number (see Figure 25).

Additionally, every filter indicates the number of incoming calls it matches at any given time.
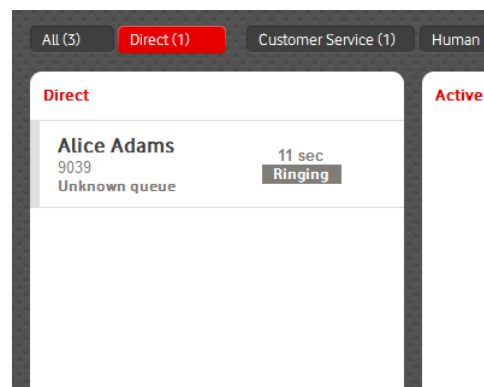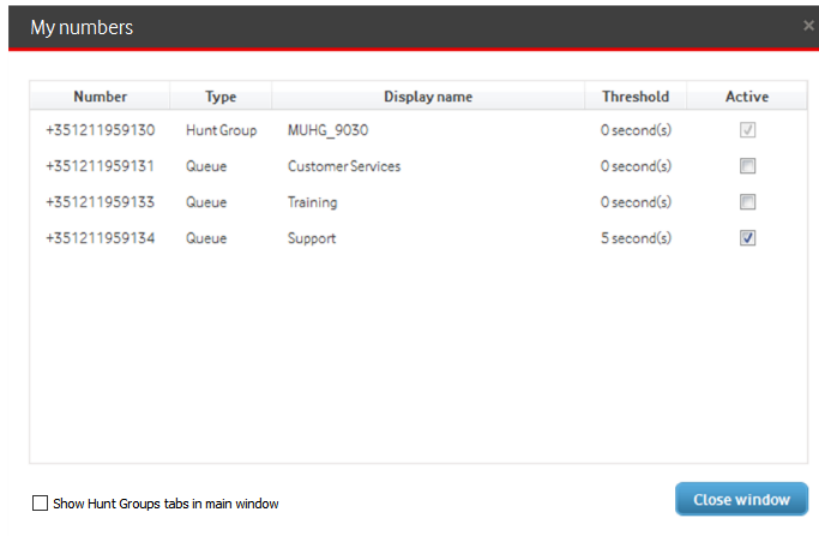
Figure 25: Incoming calls filtered by "Direct" calls

4.3.2. Queues monitoring

The ability to monitor queues of incoming calls is an essential feature in the Operator Console. An administrator will assign a list of queues to your account that will be downloaded by the application during the login process.

At any time, you can manage what queues to monitor by clicking the "**My numbers**" button on the primary navigation panel. A screen will appear for the effect:

---

[2] Hunt-Group filters can be identified by the presence of an exclamation mark before their name.

Operator Console V3

Figure 26: My numbers management

The queues management screen displays the following information about each queue:

- **Number:** the queue number;
- **Type:** hunt group or queue;
- **Display name:** an alias for the queue number. By default, the name assigned by the administrator is shown, but you can change it to a more suitable value with double click;
- **Threshold:** warning time for waiting calls;
- **Active:** a checkbox indicating if the queue is currently being monitored. You can activate or deactivate monitoring by toggling the checkbox's state, unless it appears greyed out; which means the administrator defined the queue monitoring to be mandatory.

When you are done, just click "**Close window**" to return to the main window and Operator Console will remember your settings on your next login.

4.3.3. Dealing with incoming calls

To answer a call in the incoming calls panel you can drag it to the active calls panel, double-click on it, or select it and press the Enter key on the keyboard. On the notification window, just press "**Answer**".

To reject a call in the incoming calls panel, use the ☒ button. On the notification window, press, "**Reject**".

When an incoming call is rejected, the application:

- Sends a Busy response to the originator if the call is "Ringing";
- Hides the call from the user interface if the call is queued.

4.4. Active calls

The active calls panel houses all on-going calls. These calls can be either calls you answered or calls you made to a contact/number. At any given time, although several calls can be listed, only one call can be in "Active" state.

Operator Console V3

The following information is shown for each on-going call:

- Status indication icon:
    - Incoming call;
    - Outgoing call;
    - Call on hold;
- Remote peer information, including queue information for called picked up from a queue;
- Call status:
    - Active;
    - On hold;
    - Conference
- Call time indication.

Additionally, each call entry allows the following actions:

- Blind Call Transfer, using the "Enter extension" field;
- Hold/Resume call;
- Park call (only for held calls)
- End call.
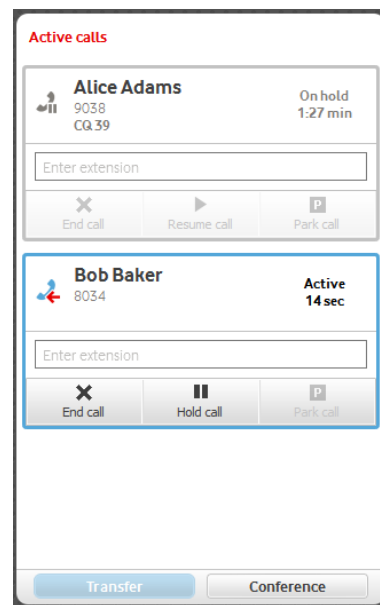
Figure 27: Active calls panel

4.4.1. Calls history

Pressing the History button will show a log of previous calls depending on the configured history storage duration (see section 4.5.4):
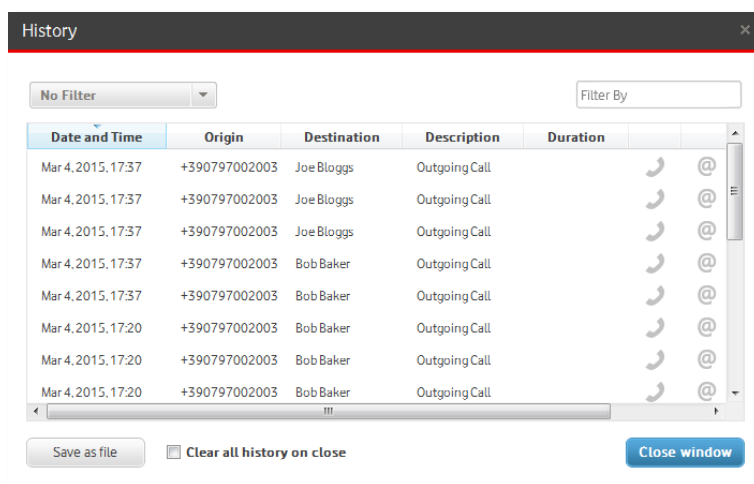
Figure 28: History window

Each history log entry displays:

- Date and time – when the entry occurred;
- Origin – The contact/number that started the call;
- Destination – the contact/number that received the call;
- Description – entry type indication;
- Duration – elapsed time since the call was answered until it was terminated.

Operator Console V3

The history can be sorted by entry pressing the correspondent column header and be filtered using one of the following:

- Description combo box at the top left side, allowing filter by:
  - Incoming calls;
  - Outgoing calls;
  - Missed.
- Search and filter field at the top right side:
  - Simple search in the origin and destination fields;
  - Filter by any of the column headers (e.g. "Destination: Bob").

The history log can be exported to a Comma Separated Values (.CSV) file by pressing the "**Save as file**" button and selecting a destination location. Additionally, the whole history can be deleted using the "**Clear all history on close**" checkbox (it's not possible to delete individual entries).

You can also make a call to the remote peer of a history entry by pressing the ⌣ button, or you can email an entry's details by pressing the @ button.

Operator Console V3

4.5. Configuration

The "Configuration" option on the primary navigation area opens a configuration window where is possible to tweak some application settings. A smaller set of customizable settings is available through the "**Settings**" link on the login screen (see Figure 2). The window is organized into several tabs, listed below:

Table 2: List of tabs in the configuration window

Tab visibility	Before softphone setup	After softphone setup
General	Yes	Yes
Warnings	No	Yes
Calls	No	Yes
History	No	Yes
Address Book	No	Yes
Font Size	Yes	Yes
Audio Setup	No	Yes
Call Monitoring	No	Yes
Network	Yes	No

4.5.1. General settings

The General tab allows you to change the user interface language. Changes are applied as soon as the user presses save, without the need of restarting the application.
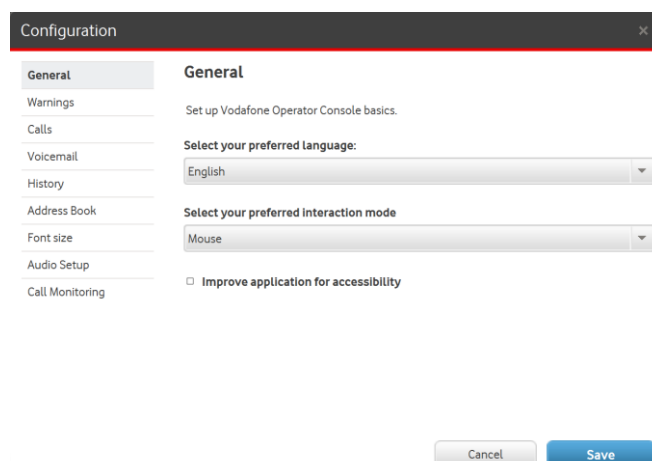
Figure 29: Configuration – General settings

It is also possible to instruct the application to improve its behaviour focused on accessibility. This functionality will effectively make the application behave and integrate better with screen readers used primarily by blind and visually impaired users. The option is not advised for users without such impairments, as it might introduce some pauses and delays in some common use cases (see §6 for more details).

Operator Console V3

4.5.2. Warnings

The warnings tab lets you change settings related to incoming calls warnings.
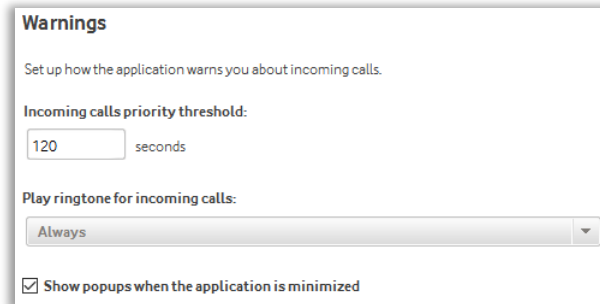
Figure 30: Configuration – Warnings

The configurable settings are:

- **Incoming calls priority threshold**: defines how much time must pass before the time indication for incoming calls turns red (see Figure 22);
- **Ringtone frequency**: defines the conditions to play ringtones:
  - **Always**: ringtones are played for every incoming call;
  - **When queue is out of focus**: ringtones are played when a new incoming call does not match the filter selected in the queues navigation panel (see Figure 24); I.e., a ringtone is played when the focus is on a different queue;
  - **Never**: no ringtones are played for incoming calls.
- **Show popups when the application is minimized** flag indicating whether a popup is shown whenever an incoming call arrives while the application is minimized (see Figure 23).

4.5.3. Calls

In the Calls tab, it is possible to:

- Change the **ringtone for incoming calls** by selecting a WAV audio file from the hard drive;
- **Sort incoming calls by:**
  - "**Waiting time**" – the oldest call is the first in the list;
  - "**User/call rating**" – the most important call is the first in the list;
- **Always show direct calls on top**, i.e., calls directed to you will appear on top of queued calls, regardless of the sort order chosen in the previous option;
- **Hide anonymous calls** in the incoming calls panel.
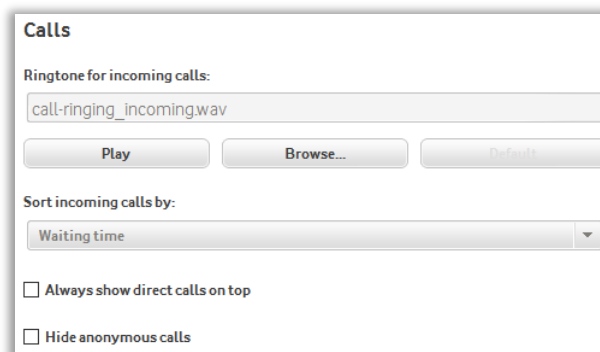
Figure 31: Configuration – Calls

Operator Console V3

4.5.4. History

The history tab lets you define for how long history entries are kept. Additionally, it is also possible to delete the entire history for each type of event.
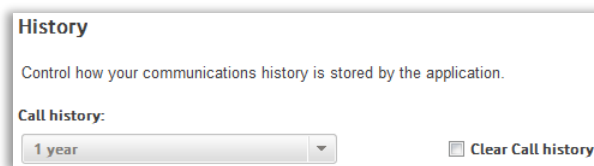
Figure 32: Configuration – History

4.5.5. Address Book

This tab allows you to configure the contact list:

- **Show name as**:
  - o "**Surname, Name**" – the contact surname will appear before his name, comma separated;
  - o "**Name Surname**" – the contact displayed name will be name followed by surname.
- **Sort by**:
  - o "**Surname**" – the contacts will be ordered by the surname;
  - o "**Name**" – the contacts will be ordered be their name.
- **Synchronize Address Book on Save** will force to update the contact list.
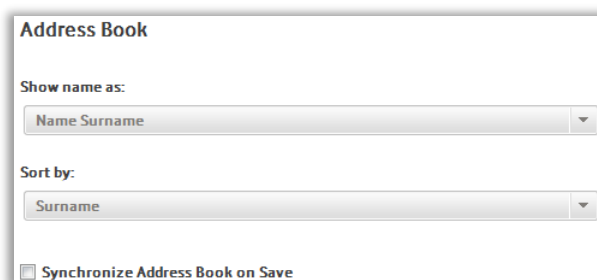
Figure 33: Configuration – Address Book

4.5.6. Font size

On this tab you can choose the font size that better suits your needs.
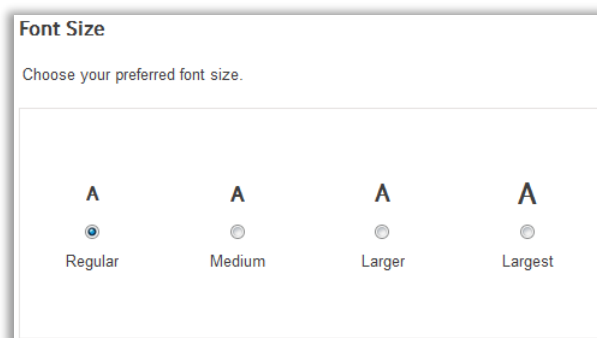
Figure 34: Configuration – Font size

Operator Console V3

The user interface will change as soon as you save the settings.

4.5.7. Audio Setup

The Audio Setup lets you configure speaker and microphone settings. If your computer has several sound devices, including headsets, you can define here which ones will be used during calls.

The supported headsets[3] are:

- Plantronics Blackwire C320
- Plantronics Blackwire C320-M
- Plantronics Blackwire C420-M
- Plantronics Blackwire C520
- Plantronics Blackwire C520-M
- Plantronics Savi W740
- Plantronics Savi W740-M
- Plantronics Voyager Legend UC B235
- Plantronics Voyager Legend UC B235-M

On this tab, you can:

- Use the Play Sound to test the audibility;
- Adjust device volumes by moving the sliders along the bars.

Ring sounds can be configured to play on:

- Selected device;
- All devices.

Optionally, it is possible to enable the use of the headset to handle calls.
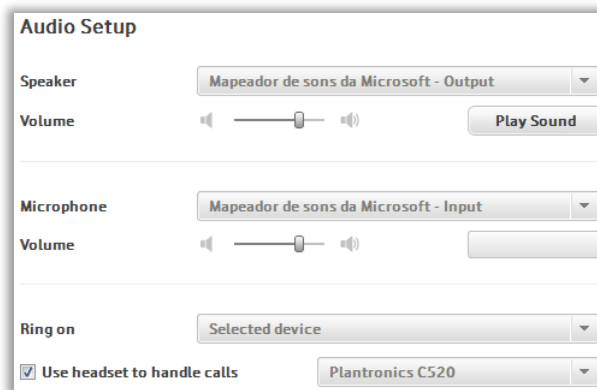
Figure 35: Configuration – Audio Setup

Below you can find some important notes about sound setup with different Operating Systems.

---

[3] The Plantronics Spokes™ software package is incompatible with the Operator Console application. Installing the software might disable support for advanced features in the headset.

Operator Console V3

Notes for Microsoft Windows

On Windows OS, there are system-wide default devices for Playback and Recording. Due to this fact, even if your system only has one installed device, you will be shown an option to select a virtual device named "Primary sound driver" which is merely an alias for your system-wide default device.

Selecting the system-wide default device will allow the application to keep-up with changes you make on your system without having to change the sound setup every time.

An additional warning for plug & play of USB devices: any changes to the devices list will not be detected while the configuration screen is open. If you plug a device, please close the configuration window and reopen it to see the changes.

4.5.8. Call Monitoring

In the tab it is possible to enable the generation of the calls diagnostics reports, where is possible to specify the path to store the reports and an email to send them to.
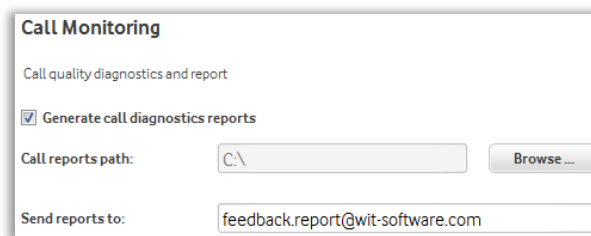
Figure 36: Configuration – Call Monitoring

Notes on supported email clients for Microsoft Windows

In order to be able to send emails with attachments, OC requires an email client with support for Microsoft's Mail API (e.g. Microsoft Outlook, Thunderbird, etc.). Please check your preferred email client documentation to confirm it provides this functionality.
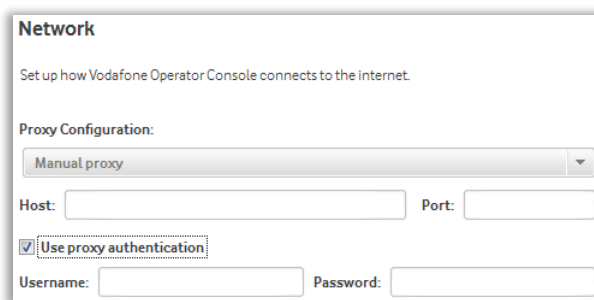
A notable client without support for email attachments is the new "Mail" application which comes with Windows 10.

4.5.9. Network

It may be necessary – depending on your network – to tweak the application's proxy settings in order to have proper connectivity to the Vodafone Operator Console service. The options are:

- **No proxy**;
- **Auto detect proxy**;
- **Manual proxy**: asking for a host and proxy port;

In the case of the last two options, the user can specify the proxy authentication credentials.

Operator Console V3

Figure 37: Configuration – Network

4.6. Notification area

4.6.1. Error Log

In the bottom left corner, over the "Error log" button ( ), it is displayed the number of errors occurred since the log was checked for the last time.
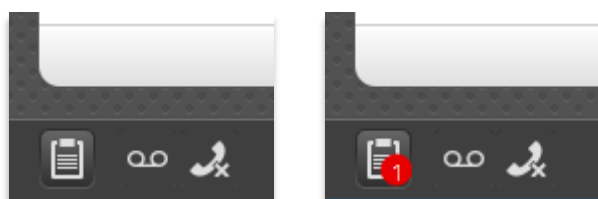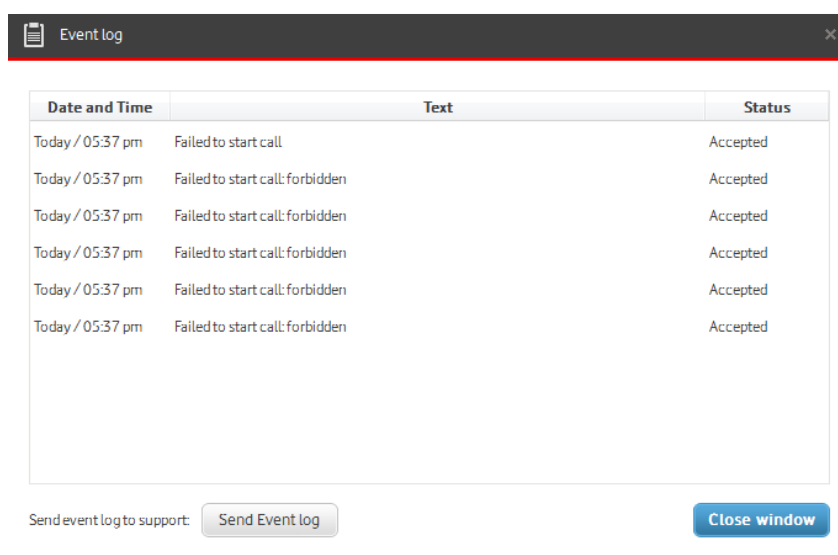
Figure 38: Notification area

By pressing the "Issues log" button you can see the full log, with timestamps for each entry.

Date and Time	Text	Status
Today / 05:37 pm	Failed to start call	Accepted
Today / 05:37 pm	Failed to start call: forbidden	Accepted
Today / 05:37 pm	Failed to start call: forbidden	Accepted
Today / 05:37 pm	Failed to start call: forbidden	Accepted
Today / 05:37 pm	Failed to start call: forbidden	Accepted
Today / 05:37 pm	Failed to start call: forbidden	Accepted

Figure 39: Error log

If a persistent error requires information to be sent to the support team, it can be done by pressing the "Send Event log" button, which will open your preferred email client.

Operator Console V3

Notes on supported email clients for Microsoft Windows

In order to be able to send emails with attachments, OC requires an email client with support for Microsoft's Mail API (e.g. Microsoft Outlook, Thunderbird, etc.). Please check your preferred email client documentation to confirm it provides this functionality.

A notable client without support for email attachments is the new "Mail" application that comes with Windows 10.

4.6.2. Missed calls

In the notification area there is also a button () that opens the history log already filtered by "**Missed**" calls (see section 4.4.1), the button turns red () until this calls are not viewed.

4.7. Logging out

There are two ways to perform logout in Vodafone Operator Console. You can either click the "**Logout**" button in the User-Agent area or quit the application by closing the main window. Independently of the way you choose to logout, you will be prompted to confirm your intent of doing so in a message box.
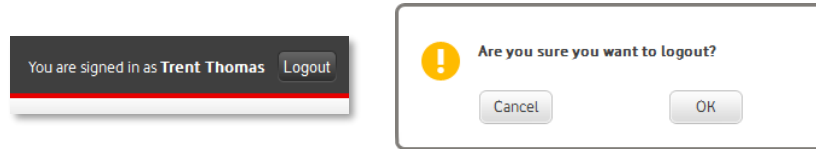
Figure 40: Logout button and confirmation

If you confirm, Vodafone Operator Console will disconnect from the network and save any necessary settings. Then, depending on whether you chose to logout or to quit the application, you will be back to the Login screen or the application will exit.

Operator Console V3

5. Handling calls

Vodafone Operator Console lets you handle up to four simultaneous calls[4] in the active calls panel. This chapter focus on explaining the interactions between the several visual elements. It covers some topics already mentioned in earlier sections, while trying to show you all relevant use cases related to calls.

Note that whilst the chapter focus on a visual interaction using a mouse, it also gives hints on how common tasks can be accomplished via keyboard shortcuts, which once memorized can greatly increase the speed of use. For a complete list of keyboard shortcuts and other ease of use features, see §6.

5.1. Answering Calls

Answering calls – as mentioned in section 4.3.3 – is as simple as double clicking a call in the incoming calls panel, using the mouse to drag it to the active calls panel or pressing "Enter" on a selected call. The application takes care of doing the right action, whether the incoming call is direct or queued in a monitored number.
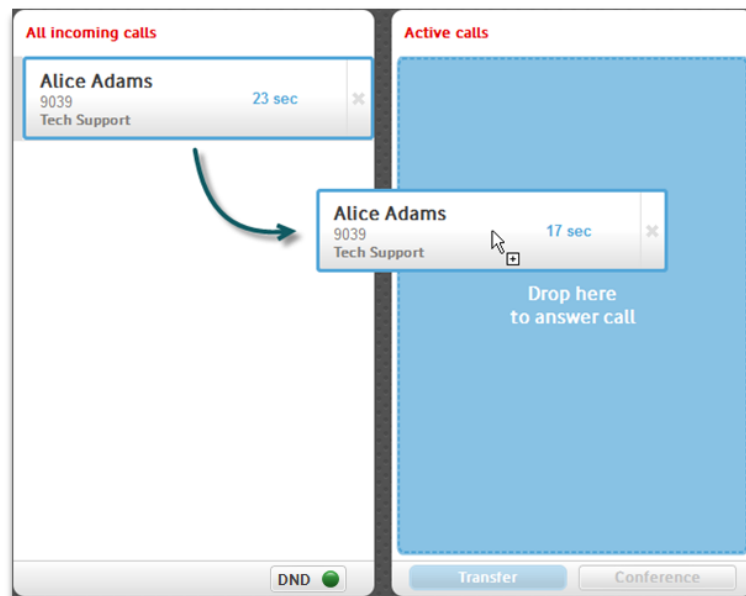
Figure 41: Answer call with drag & drop

Additionally, the "Space" key is a shortcut to answer the top call from the incoming calls panel.

5.2. Making Calls

Establishing a call to a contact's extension can be done by dragging the contact from the contacts or favourites list and dropping it on the "Drop here to call" area that appears in the active calls panel (see Figure 43).

---

[4] Any attempt to answer or make new calls after reaching the limit of four active calls will fail, and an error will appear in the issues log.

However, if you want to call a number other than the extension for the contact, you have to expand its details (with double-click or "Enter" on a selected contact) to reveal all numbers. Once all numbers are visible, just click the entry you want to call.

5.3. Transferring calls

There are two types of call transfer: (1) blind/unattended; (2) Consultative/attended. The following points describe how to perform each type of transfer.

5.3.1. Blind or unattended transfer

You will want to do blind transfers when you need to transfer an on-going call directly to a specific number or contact without having to consult that remote peer.

If the destination number is known, enter it on the extension box located inside the call entry you want to transfer, and then press [Transfer] on the button located at the bottom of the active calls panel.
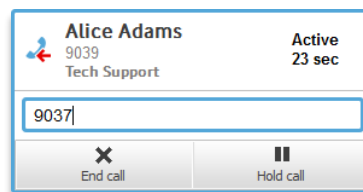
Figure 42: Blind transfer to extension

To tranfer the call to a contact in your list you simply have to drag the contact on top of the on-going call.
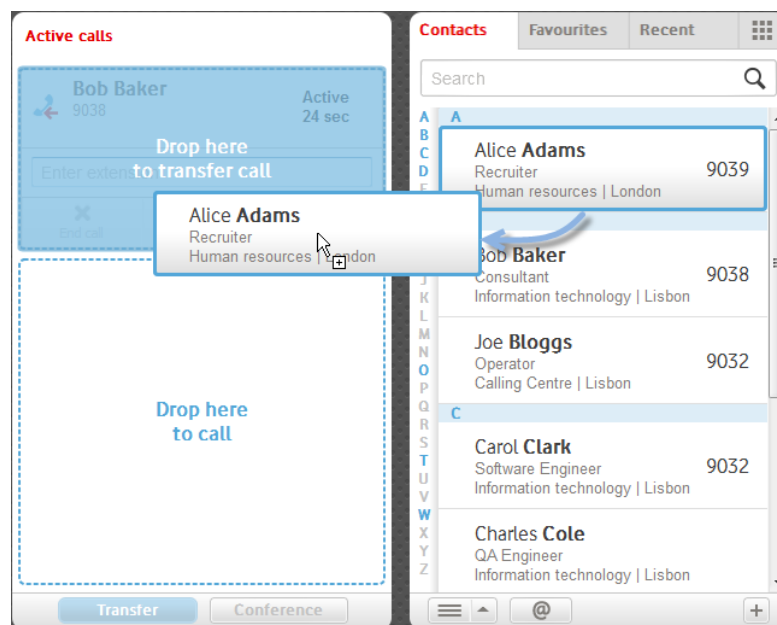
Figure 43: Blind transfer with drag & drop

Another way to do it is by pressing the "T" shortcut key, navigate to the contact and press the "Enter" key to confirm the tranferral.

Operator Console V3

5.4. Consultative or attended transfer

Unlike blind/unattended transfers, consultative/attended transfers require making a call to the transfer destination before making the transfer.

Once you have two calls, the transfer can be done in several ways:

1. Selecting both calls (use the "Shift" key) and pressing [Transfer] or 'T' on the keyboard;
2. Drag and drop one call on top of another.
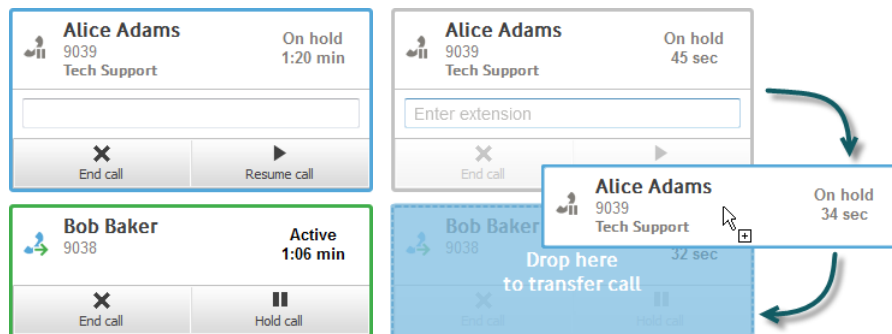
Figure 44: Consultation transfer

5.5. Parked Calls

Active calls can be parked in order to return them to the incoming calls panel. To do so, first put the call on hold, and then press the "Park call" button. The call will be terminated and it will reappear in the incoming calls panel with a "Parked" badge.
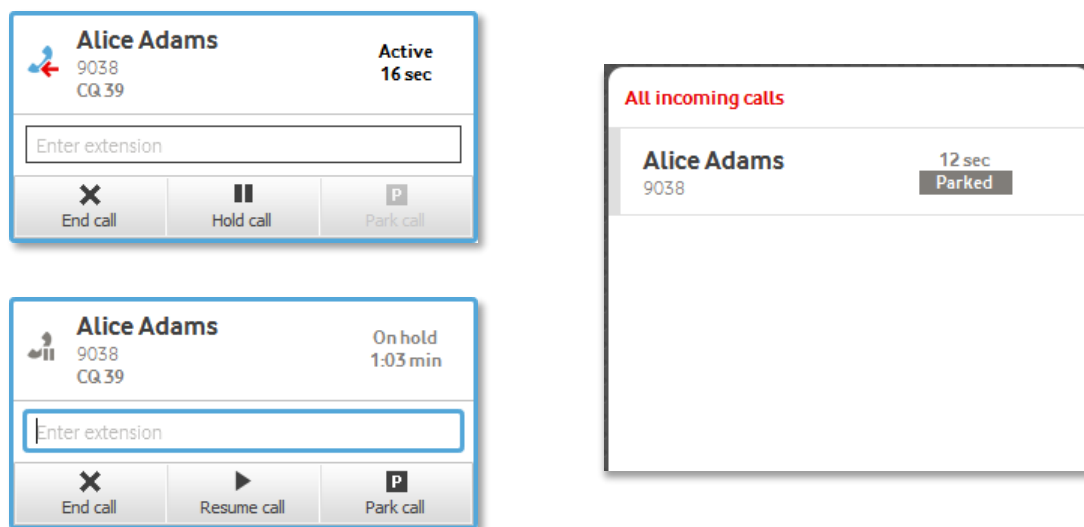
Figure 45: Call Park

5.6. Conference calls

Vodafone Operator Console can create/manage ad-hoc conferences with up to four participants (yourself included). Calls can be joined using the [Conference] button once there are at least two active calls.

Operator Console V3
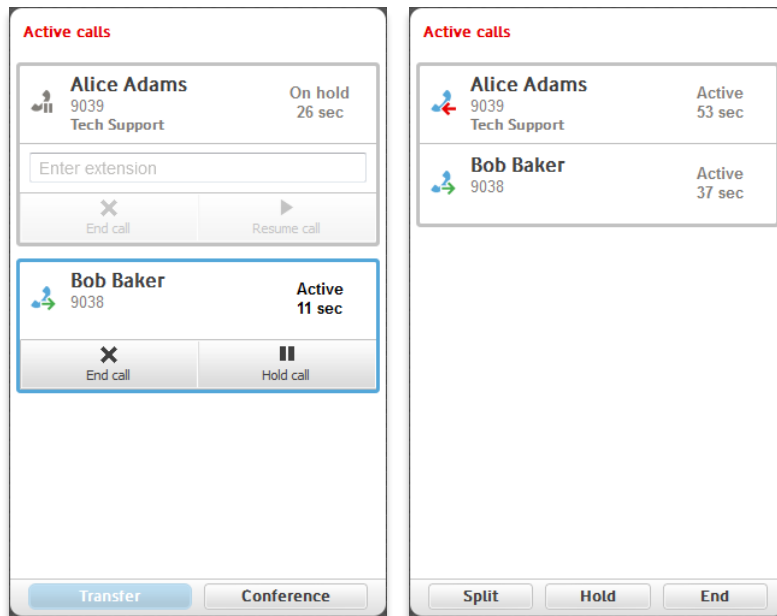
Figure 46: Conference call

Once a conference is established you can control its participants and state using the ⬚Split⬚, ⬚Hold⬚ and ⬚End⬚ buttons on the bottom of the active calls panel. As their text indicates, it's possible to:

- **Split** – removes the selected participant from the conference (possibly destroying the conference if it has only three participants);
- **Hold** – places the conference media on hold;
- **End** – All conference participants are disconnected.

More participants can be added by pressing the ⬚Conference⬚ button when new calls are connected outside an already existing ad-hoc conference.

Operator Console V3

6. Ease of Access

This chapter focus on explaining how the application can be used more easily and/or efficiently.

6.1. Keyboard Shortcuts

Table 3: Keyboard Shortcuts list

Context	Shortcut	Shortcut action
General (any window)	F1	Open user guide or help page
General (any window)	Esc	Clears selection/stops JAWS from speaking
Main Window	F4	Focus on the top incoming call
Main Window	F5	Focus on the active calls panel
Main Window	F9	Focus on directory search
Main Window	F10	Focus on Favourite Contacts tab
Main Window	F11	Focus on Recent Calls tab
Main Window	F12	Focus on Numpad tab
Main Window	Ctrl+Alt+Q	Open queues management window (if queues enabled)
Main Window	Ctrl+Alt+H	Open history window
Main Window	Ctrl+Alt+I	Open configuration/settings windows
Main Window	Ctrl+Alt+G	Open CRM configuration window (if CRM plugins installed)
Main Window	Ctrl+Alt+W	Open about window
Main Window	Ctrl+1-9	Call Favourite 1-9
Incoming Calls Panel	Enter/Return	Answer selected call
Incoming Calls Panel	Space	Answer top incoming call
Incoming Calls Panel	Backspace	Reject/ignore selected call
Active Calls Panel	X	End selected call
Active Calls Panel	H	Hold selected call
Active Calls Panel	R	Resume selected call
Active Calls Panel	P	Park selected call
Active Calls Panel	T	Initiate call transfer mode for selected call
Active Calls Panel (transferring)	Enter/Return	Confirm/Complete assisted call transfer
Active Calls Panel	C	Create conference with all active calls
Active Calls Panel (In Conference)	S	Split conference
Contacts panel	Enter/Return	Expand selected contact
Contacts panel (transferring)	Enter/Return	Confirm/Complete blind call transfer
Contacts panel	V	Call selected contact's voicemail
Contacts panel	E	Call selected contact's email

Operator Console V3

On top of this list of shortcuts, Operator Console follows the host operating system guidelines to navigate visual elements. These shortcuts should be already familiar to users and are outside of the scope of this document. E.g., users can navigate between elements by using the Arrow or Tab keys.

6.2. High-contrast accessibility

Since version 3.0, Operator Console detects when Microsoft Windows is being used with a high contrast theme and changes its design to also improve its usability.

Figure 47: High-contrast theme example

The actual colours will depend on the current theme defined in the operating system settings.

6.3. Screen Readers support

Version 3.1 brought several improvements aimed at improving the support for screen readers.

Although all screen readers should benefit from the improvements made, testing and development focus went primarily to support JAWS (version 2019), a popular screen reader for Microsoft's Windows Operating Systems.

To further enhance the out-of-the-box experience, users can enable improved application accessibility (see §4.5.1), which will effectively make the application give extra information to screen readers and introduce speech pauses to avoid an overwhelming amount of information to users during quicker transitions.

Operator Console V3

7. Troubleshooting

This section presents a guide to detect and troubleshoot common problems in the application.

7.1. Frequently Asked Questions

7.1.1. Can my PC run Operator Console?

Vodafone Operator Console can run on any PC with Microsoft Windows 7. You might also be able to run it on other versions of Microsoft Windows (e.g.: Windows XP, Windows 8.1 Desktop), but no official support is currently provided.

To check your PC's Windows OS version, follow these steps:

1. Click **Start**, and type *winver* in the **Search** box;
2. Click **winver** or press enter (The "About Windows" dialog opens).
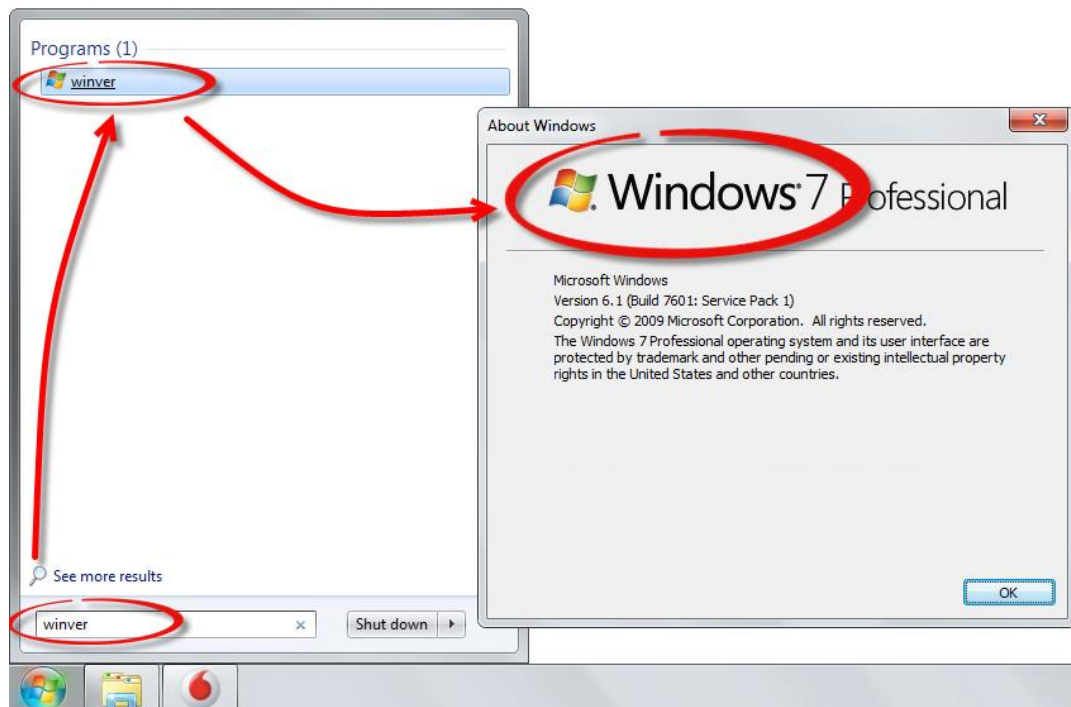
Figure 48: Checking your PC's version of Windows

7.1.2. Where can I obtain an installation package for Operator Console?

Download the Operator Console Installer, or if provided use the Vodafone Operator Console disc and the systematic wizard will guide you through how to install the program.

Once the Vodafone Operator Console install file has been downloaded, simply run the installer by double-clicking on the file and selecting Run when requested.

Operator Console V3
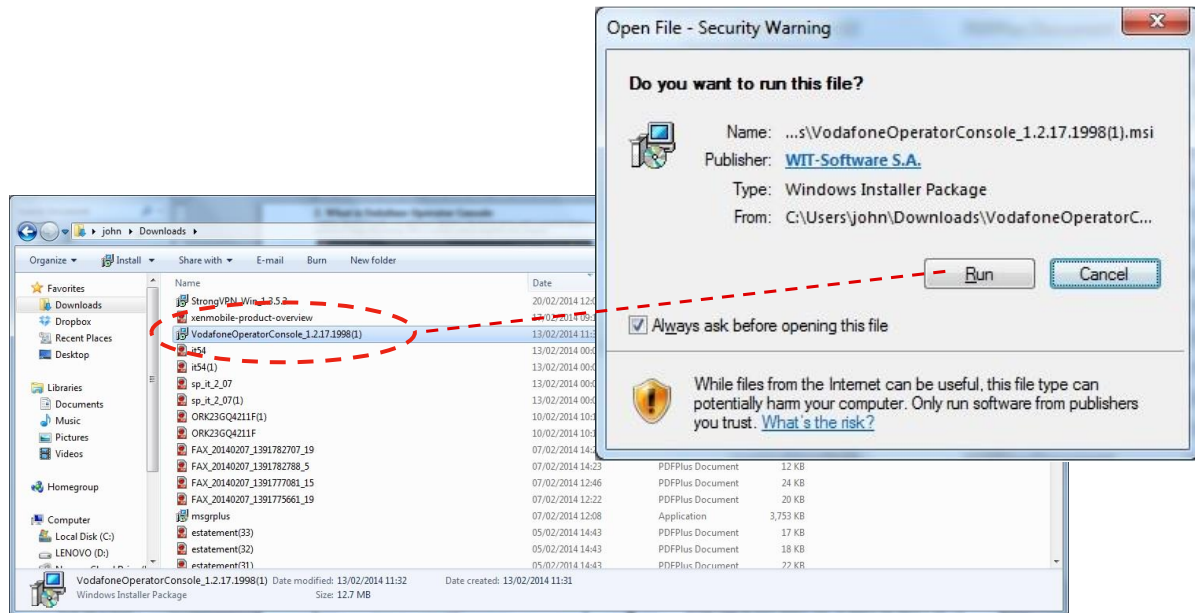
Figure 49: Running the Vodafone Operator Console installer

7.1.3. My PC can run Operator Console. Why can't I install it?

If you already have a valid installer, you must also have an account with Administrator privileges on your PC. To determine your user account type, follow these steps:

1. Click **Start**, and type *User Accounts* in the **Search** box;
2. Click **User Accounts** from the list of results (The User Accounts window opens)

   Your user account type is listed beside your user account picture
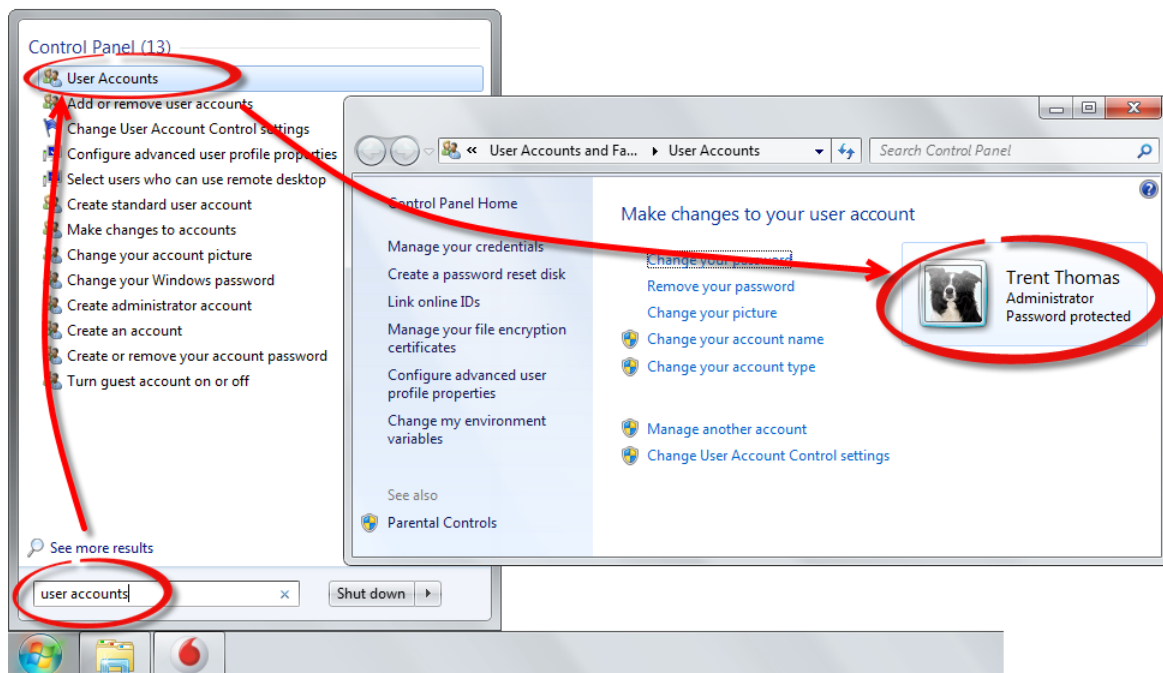
Figure 50: Checking if your Windows account has Administrator rights

If you're not set up as an administrator, check with your IT support team.

Operator Console V3

7.1.4. I cannot log in to Vodafone Operator Console...

Generally, sign in problems can occur for numerous reasons:

- **Computer or Installation issues** typically occur on a small group of PCs with similar configurations and restrictions;
- **Authentication and provision issues** are usually experienced by a single user who may not be entering his credentials correctly or might not yet have his account provisioned;
- **Network issues** can affect all the users at a specific site or network location;
- **Service temporarily unavailable issues** might happen to all users of the service, usually for a short period.

If you get an error message during the sign in process, you should search Table 4 on page 48 for a potential solution to you problem. If your problem remains and you get a "No connection to server" error, check if the question below describes your situation.

7.1.5. Why do I get a "No connection to server" error even though I can access the Internet?

Vodafone Operator Console is designed to connect with the Vodafone network over a standard Internet connection. As a basic rule of thumb, if you can reach *www.vodafone.co.uk* from your web browser, the OC should be able to connect to the Vodafone network.

If you are having difficulties connecting to the Vodafone network, check with your in-house IT support team to understand if any restrictions on your office network might be preventing you from connecting to the Vodafone Network. You can also check the internet connectivity options on your PC to understand if your LAN settings are preventing you from reaching Vodafone servers:

1. Click **Start**, and type *Internet Options* in the **Search** box;
2. Click **Internet Options** from the list of results (The Internet properties window opens);
3. Go to the **Connections** tab and click **LAN settings**.
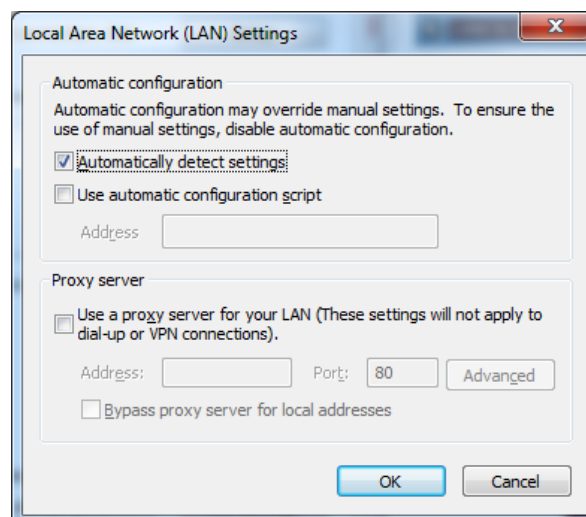
Figure 51: Checking your LAN settings (Internet Options)

The lack of automatic LAN settings configuration or the use of a proxy server might indicate that your network settings are preventing you from accessing the necessary servers on the Vodafone Network.

Operator Console V3

Further restrictions might be causing your lack of connectivity. Section 7.4.1 discusses firewall settings that might help you solve your sign in issues.

7.1.6. Why do incoming calls only appear after being queued for a while?

This behavior can occur due to a combination of two factors, which are more likely to materialize when you switch networks often or connect to new untrusted networks:

- You typically receive/make a small number of calls; and
- There is a firewall blocking inbound connections to OC when no network traffic is exchanged for more than a couple of minutes.

Moreover, this combination of factors might also cause you to miss some direct calls to your OC number.

Section 7.4 of this guide contains instructions for checking and configuring common firewall scenarios to avoid this issue.

7.1.7. I can establish calls, but there is no sound…

Sound issues are usually related to either a, incorrect sound devices configuration or, or to network restrictions over voice traffic. Typically, if one of the parties can hear sound, then you should check if any sound device is being muted by the application, by Windows, or even by the device itself when this support exists. If no devices are muted, then check Operator Console's sound setup (see §4.5.7).

If both parties in the call cannot hear any sound and the sound setup is correct, then the problem is likely related to a network restriction. Check §7.4.2 of this document to understand how to overcome this issue.

7.2. Common login errors and how to fix them

Below is a listing of common errors, their causes, and – whenever possible – a potential solution.

Table 4: List of common login errors

Error message	Error description and Potential solution(s)
Service temporarily unavailable	The One Net service might be overloaded or temporarily down. Try again later.
Authentication error: service unavailable	The authentication service might be overloaded or temporarily down. Try again later.
Authentication error: account disabled	Your account is locked or disabled. Contact Vodafone support.
Authentication error	General authentication error. Try again later. If you are still getting an error contact Vodafone support.
Wrong credentials. Please verify your username and password	The user name and password you have entered don't match an active account. Check you have typed your user name and password correctly. Do you have CAPS LOCK on by accident? If the credentials are in fact correct, reinstall the application and make sure you select "Vodafone UK" when prompted to select an operator.
No connection to server	The application could not connect to the necessary servers. Check that you are connected to the internet, or see section 7.1.5 if your connection seems OK.
Unknown error (0x3…)	This is a serious error. You will need to reinstall Vodafone Operator Console. Check with your IT support team if you need help.
Unknown error (0x5…)	Failure during Auto-Update; Try again later or ignore update if you can.
Unknown error (0x7…)	The network resources required are not available. 1) Try restarting Vodafone Operator Console. 2) Try restarting your PC.

Operator Console V3

	3) Check your network interface settings. Contact your IT support team for help.
Unknown error (0x9…)	Failure during registration. Some resources required by the application might be in use. 1) Try restarting Vodafone Operator Console. 2) Try restarting your PC. 3) Contact Vodafone support if the problem continues.

7.3. Crashes

If Vodafone Operator Console crashes, please click 'Send report' on the pop-up window.

Ooops!
This application has caused an unexpected exception and will be terminated. To help us improve it, please allow the error details to be sent back to us.

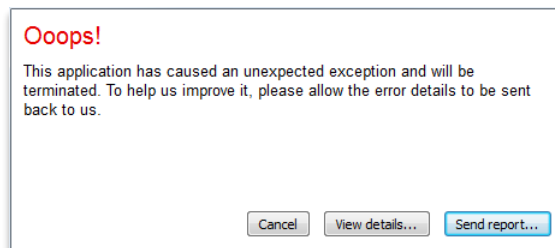[Cancel] [View details...] [Send report...]

Figure 52: Unexpected exception window

If Vodafone Operator Console crashes, please click 'Send report' on the pop-up window.

7.4. Allowing voice and data communication through your network

Your network may need to be configured to allow voice and data communication to flow between Vodafone Operator Console and Vodafone's One Net service without any restriction. In scenarios where the Operator Console is not receiving calls constantly, even after install and whilst already logged in, if a call is neither received nor made for a period, then the ports for voice signalling and media may be closed down by the Firewall. This automatic close down of ports, also known as pin hole closing, varies depending on each specific firewalls settings, but can be after just 30s or after 3 minutes or more.

Check with your in-house IT support team to find out what firewalls have been set up on your PC and on the network equipment between your PC and the internet. Also <u>avoid using wireless networks with poor signal strength</u>. Although Vodafone Operator Console will work on those, <u>you will very likely benefit from using wired network connections whenever possible</u>.

Reading this section will help you understand what problems you can expect and how to solve them.
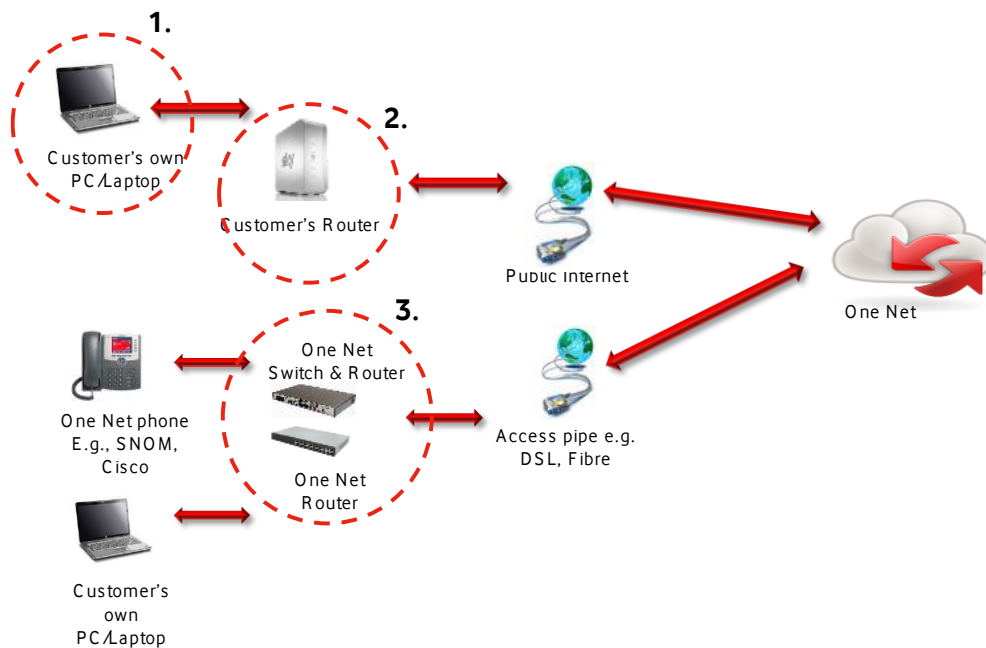
Operator Console V3

Figure 53: The possible firewalls between Vodafone Operator Console and the internet

Firewalls that may affect the Operator Console are as follows:

1. Windows Firewall (accessible via the Control Panel) or 3rd Party Software Firewalls also installed on customer's own laptop/PC;
2. Firewalls (on Routers) or other on-premises equipment, not provided by Vodafone;
3. Firewalls (on Routers) or other on-premises equipment which have been provided by Vodafone to connect other One Net Clients, such as IP Phones to the Network, already have the correct Firewall settings configured.

What happens on the OC when the Firewalls close the ports needed to send new calls to the OC?
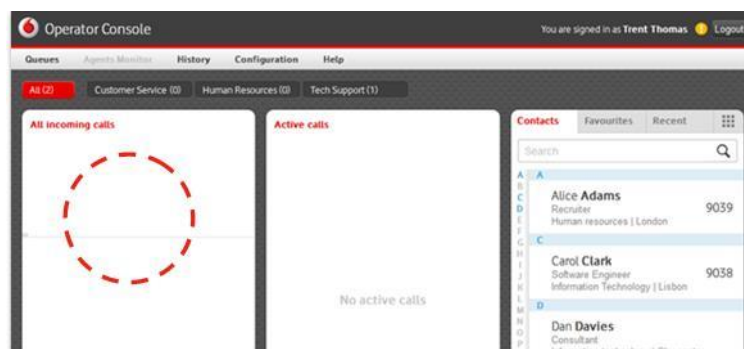
Figure 54: What you (don't) see when a firewall blocks calls

From Vodafone Operator Console you can't tell anything is wrong, but you won't get any calls. The signal that alerts the program about an incoming call is being blocked by the firewall.

7.4.1. Requirements for firewall software installed on your PC

Unless it's been specially agreed, Vodafone doesn't normally install or set up security on customers' personal or work PCs. However, it's very important to check that the PC's firewall is set to allow through data and voice calls for Vodafone Operator Console.

Operator Console V3

The following sections describe this in more detail and give examples of how this can be done using Windows 'Control Panel' or other security programs. You may need to do that if they override Windows' security. Unless Vodafone Operator Console is on the allowed list of programs, the firewall software might disable some features and impact the usability negatively.

We recommend you check with your IT support team to find out what firewalls have been set up.

7.4.1.1. First time running Vodafone Operator Console

When Vodafone Operator Console starts up for the first time, Windows will display the following alert:

Figure 55: Windows Security Alert

Tick the checkboxes above to make sure Vodafone Operator Console can use all kinds of networks (home, work and public).

7.4.1.2. Checking or changing Windows Firewall settings from 'Control Panel'

Use 'Control Panel' to make sure your PC's Windows Firewall settings allow Vodafone Operator Console to use all kinds of networks. This can be done on the Windows Firewall settings page shown below:
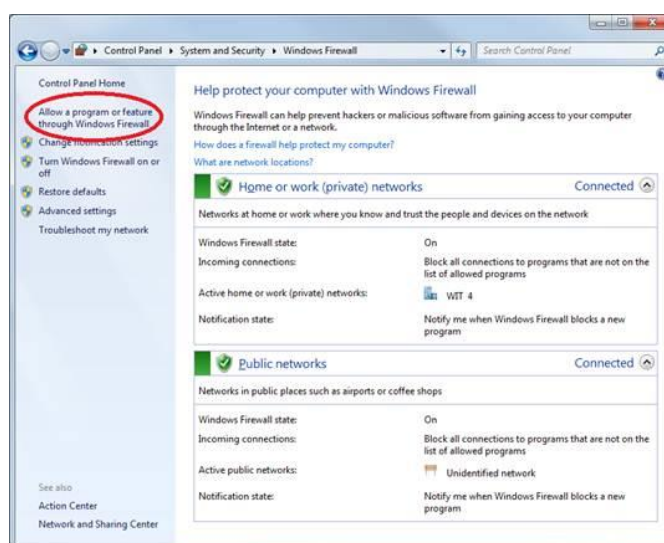

Figure 56: Windows Firewall page in Control Panel

Operator Console V3

Click on 'Change Settings', then 'Allow a program or feature through Windows Firewall' to check the allowed programs. Then click on 'Allow Another Program' to add the Operator Console .exe file (OpsConsoleApp.exe) if it's not listed as an approved program.
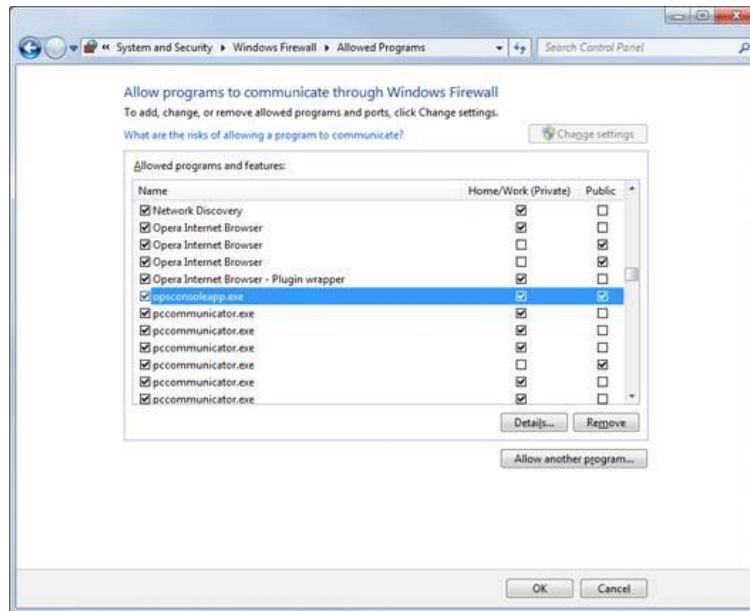

Figure 57: Allowing Vodafone Operator Console to communicate through Windows Firewall

You can find the Vodafone Operator Console program file in the folder you selected during the installation procedure (see **Error! Reference source not found.**).

By default, the program file location for Windows 7 64 bits will be:

- %programfiles(x86)%\Vodafone\Vodafone Operator Console\OpsConsoleApp.exe

Or for Windows 7 32 bits:

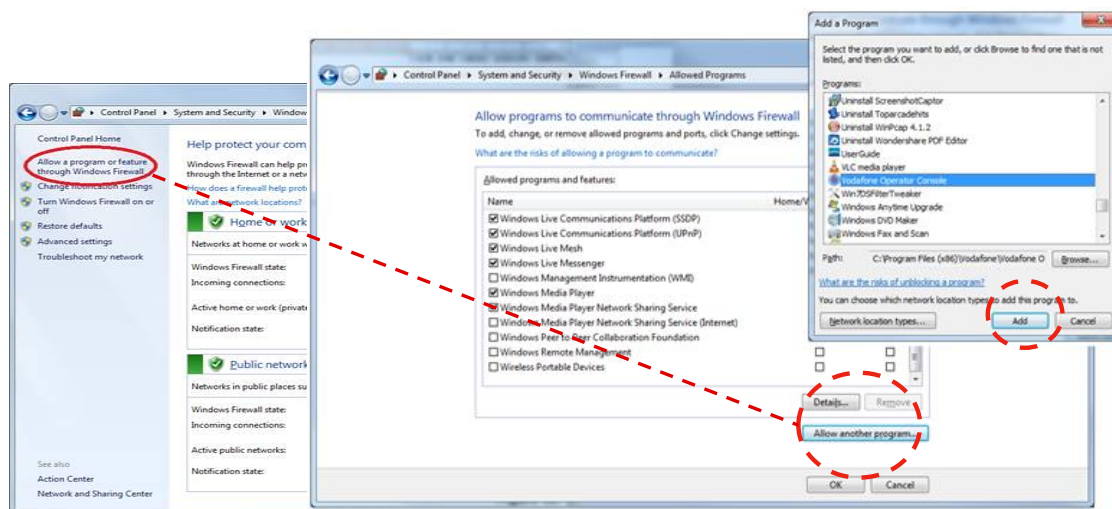- %programfiles%\Vodafone\Vodafone Operator Console\OpsConsoleApp.exe

Figure 58: Adding a Windows Firewall exception for Vodafone Operator Console

Operator Console V3

7.4.1.3. Checking or changing settings using other security programs

Other security programs can stop you making changes using the Windows Firewall 'Control Panel'. If that happens, you'll need to change the firewall rules in the other security programs. Refer to the product manuals or ask your IT support team's help to do that.

7.4.1.3.1. An example using Norton Internet Security or Norton Personal Firewall

1. Open Norton Internet Security or Norton Personal Firewall.
2. Click on 'Personal Firewall'.
3. Click on 'Program Control' to see the 'Personal Firewall general settings' screen.
4. Click 'Add' to choose the program you want to add.
5. You can choose 'Allow' or customize options from the drop-down menu on the right.
6. Norton will usually ask you to allow or disallow an application when it first opens. But sometimes this doesn't work, so it's worth checking and adding Vodafone Operator Console manually to make sure.

Figure 59: Norton Internet Security Options

Operator Console V3
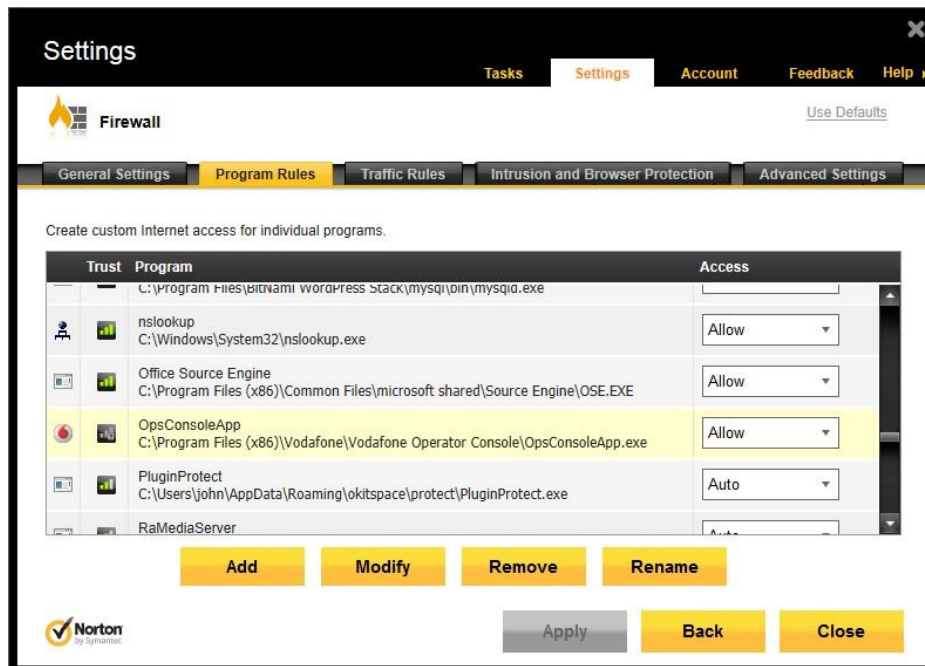
7.4.1.3.2. Norton 360 Premier example

Figure 60: Norton 360 Premier Settings

7.4.1.3.3. A Symantec example

Here are the steps to allow access through your firewall if you are using Symantec End Point Security:

1. Log in to the Symantec Endpoint Protection management console.
2. On the left side pane, click on 'Policies'.
3. In the centre pane, click on 'Firewall'.
4. Double-click the policy that you want to change.
5. On the left, click on 'Rules'.
6. At the bottom, click on 'Add rule'.
7. Click the 'Next' button three times.
8. On the 'Define an application' page you must enter the full location for the program file for Vodafone Operator Console in the 'File name' box:
    - %programfiles(x86)%\Vodafone\Vodafone Operator Console\OpsConsoleApp.exe
9. Click the 'Next' button.
10. Click 'Finish'.
11. Highlight the rule that you just created.
12. At the bottom of the page click the 'Move up' button and keep clicking it until this rule is at the top of your list.

Some useful information for Symantec firewalls:

www.symantec.com/.../how-create-firewall-rule-network-application

http://service1.symantec.com/SUPPORT/ent-security.nsf/docid/2008033106285348

http://service1.symantec.com/SUPPORT/ent-security.nsf/docid/2008060208101648

7.4.2. Requirements on other network equipment

Unless it's been specially agreed, Vodafone doesn't normally install or set up security for a customer's premises. So it's also very important to make sure the firewall settings for other equipment in the

Operator Console V3

building will allow Vodafone Operator Console data and voice calls through. That equipment will sit between the Operator Console and the broadband connection to the internet. Any firewalls in routers will need rules for:

SIP: The Operator Console randomizes a local UDP port (usually >50000) on login that will normally connect to 5060 on the SBC. If you are asked to enter a range, put [50000-65535].

RTP/RTCP: Starting from 15350, the Operator Console uses (2*<max_calls>) UDP ports. If you are asked to enter a range, put [15350-15357].

If you are not sure, check with your IT support team to find out what firewalls have been put in place on your PC and on any routers between your PC and the internet.

Operator Console V3