Kerio Control

User Guide

Kerio Technologies

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Viewing activity reports in Kerio Control Statistics

Overview

Kerio Control Statistics is a web interface where you can view your own browsing statistics.

If you have sufficient access rights, you can also see other users' statistics (see Reading managerial statistics and reports in Kerio Control).

The statistics show traffic between the local network and the Internet. They do not include volumes of data transferred between local hosts and web pages on local servers.

Statistics are primarily used to create reports for a specified period. Gathering and evaluating statistics requires processing large volumes of data. To reduce the load on the firewall, the data is updated hourly, so, you cannot use Kerio Control Statistics for real-time monitoring of user activity.

If you need more information about account settings, see Managing your Kerio Control Statistics account.

Accessing the web interface

To open Kerio Control Statistics:

Launch your web browser and type your Kerio Control address.

The address has this pattern: https://server:4081/

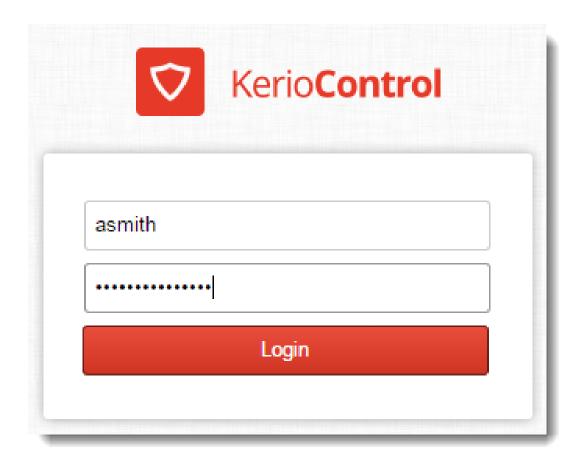
where server refers to the name or IP address of Kerio Control, and 4081 represents a web interface port.



If your browser displays a warning about a certificate invalidity, continue.

For more information, contact your Kerio Control administrator.

2. On the Kerio Control Statistics login page, type your Kerio Control username and password. If you do not know your credentials, contact your administrator.



3. Click **Login**.

Switching between Kerio Control Statistics and account settings

Kerio Control Statistics has two parts:

- Statistics displays statistics and your Internet activities.
- My Account lets you change your password, set 2-step verification, and check your browsing quota.

Use the option in the upper right corner to switch to the other part of the interface.



Displaying Kerio Control Statistics

Selecting the period to view

By default, Kerio Control Statistics displays the current day. To change the time period, use the toolbar at the upper right of the page.



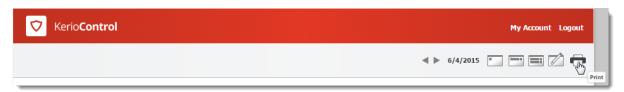
The toolbar includes buttons for switching between the daily, weekly, monthly views. The previous and next arrows to the left of those buttons allow you to jump quickly from one view to the next.



The starting day of the week and month can be changed. Contact your administrator for details.

Printing

To print any page of the statistics, click the **Print** button.



Clicking **Print** displays the current page on a new tab in a printable format.

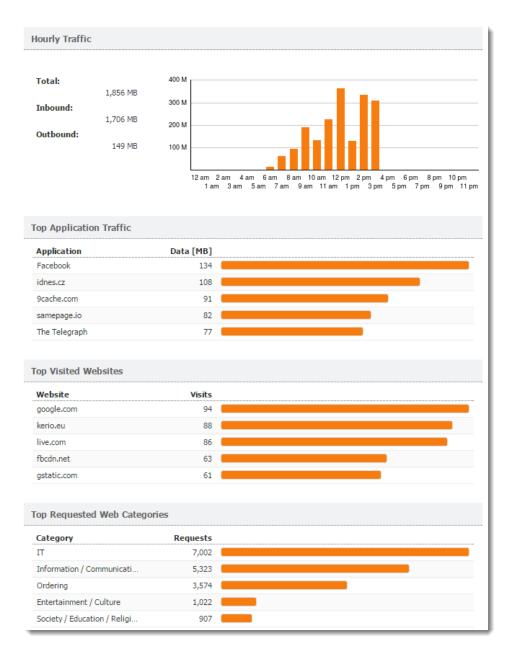
Overall tab

The **No data available** alert informs that no data is available in Kerio Control's database for the selected statistics and accounting period. This status can be caused by various different reasons — for example, the selected user account does not exist in the particular time period, the user have not logged in to the firewall within the period, and so on.

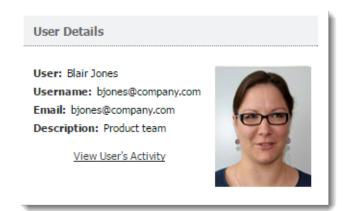


The **Overall** tab includes information about:

- Hourly/Weekly/Monthly Traffic You can change the time period in the tool bar.
- **Top Application Traffic** The five applications that got the most traffic during the selected period. For increasing productivity, block the applications or limit their bandwidth.
- Top Visited Web Sites The five sites that got the most traffic during the selected period.
- Top Requested Web Categories The five categories that were most often viewed during the selected period.

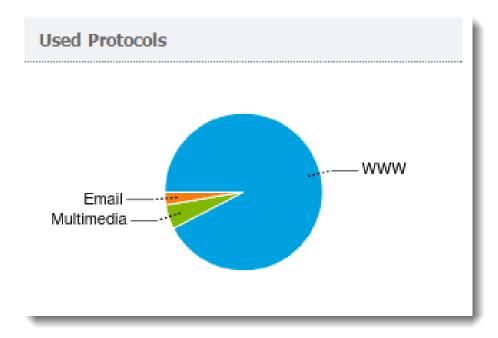


• User Details — Your user information stored in Kerio Control.



The User's Activity link is visible only if Kerio Control gathers users' activity records.

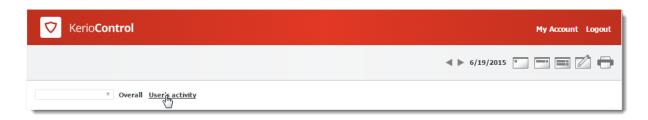
• Used Protocols — The Used Protocols pie chart is shown if you uses web, multimedia, VoIP, email, and so on.



Reading the User's activity tab



- The User's Activity tab is visible only if Kerio Control gathers users' activity records.
- The No data available alert informs that no data is available in Kerio Control's database for the selected statistics and accounting period. This status can be caused by various different reasons for example, the selected user account does not exist in the particular time period, the user have not logged in to the firewall within the period, and so on.



The User's activity tab shows detailed information about your browsing activities. You can see:

- What you were doing on the Internet during the selected period
- How much time you spent browsing web pages

Gathering and evaluating statistics requires processing large volumes of data. To reduce the load on the firewall, the data is updated hourly, so, you cannot use Kerio Control Statistics for real-time monitoring of activity.

Activity Categories

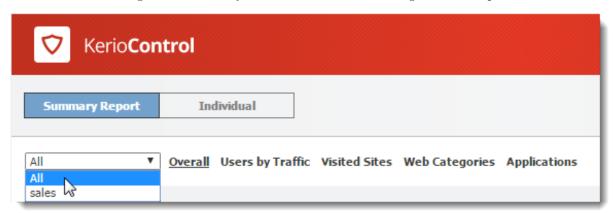
Activity categories are ranked in the order shown here. If there was no activity in a category in the selected period, that category is omitted.

- Web pages
- Messaging, which includes email communication (SMTP, IMAP, and POP3 protocols) and instant messaging
- Large file transfers, for example, archives, installation media, and so on
- Multimedia, such as video sharing sites, online radio and television channels (streaming)
- VoIP SIP (Internet telephony)
- Remote access, such as VPN.

Reading managerial statistics and reports in Kerio Control

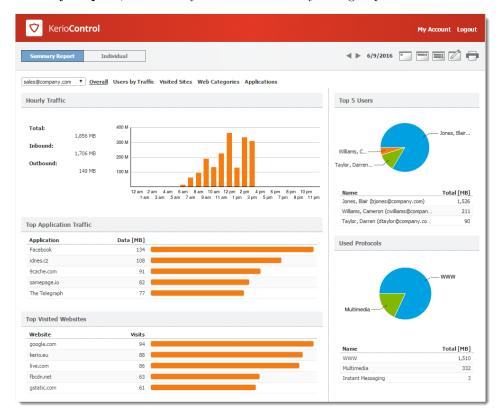
Overview

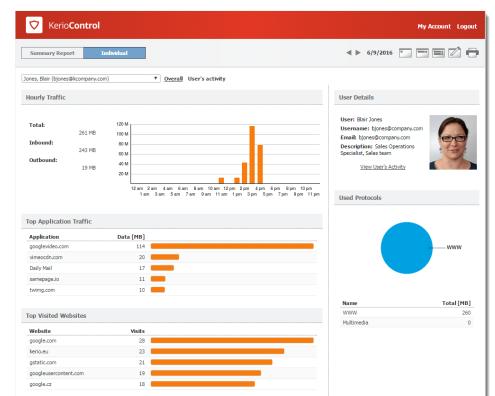
Kerio Control can gather and display Internet statistics all data (all Kerio Control users + all non-authenticated users + all guest users \rightarrow see Special users in Kerio Control Statistics), for various user groups, and for all individual users in these groups. These statistics let you keep an eye on your subordinates' browsing activities. Ask your administrator for a configuration and permissions.



Once you have the permissions, you can see two tabs in Kerio Control Statistics:

• Summary Report, which lets you view statistics by user group.



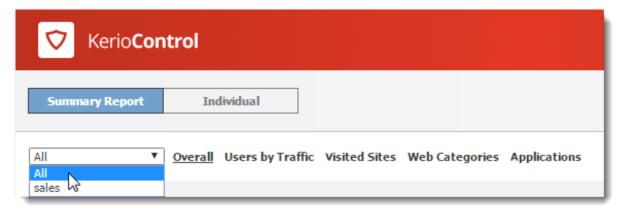


• Individual, which lets you select single users (or yourself) to see their statistics.

Reading the summary report

The **Summary Report** tab gives you an overview of the available user groups.

First, select a user group from the drop-down list.



Alternatively, choose All to see all users, including guest users and non-authenticated users. You need special permissions to see this group.

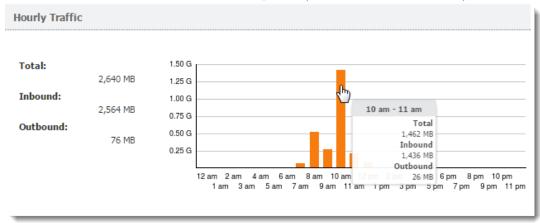
The **No data available** alert informs you that no data is available in Kerio Control's database for the selected statistics and period (for example, the selected user account does not exist, the user does not log in to get through firewall, and so on).

The **Summary Report** tab has several additional tabs, as described below:

Overall tab

Hourly/Weekly/Monthly Traffic graph

The first graph on the **Overall** tab provides information on the volume of data transferred within the selected period. When you move the pointer over the chart, you see information about data volumes transferred over the entire selected period (total and in each direction).



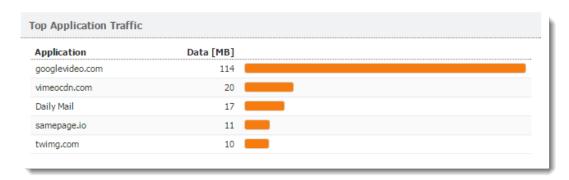
By default, the **Hourly Traffic** chart is set to show the current day. To change to the current week or month, use the toolbar in the upper right corner.



Top Application Traffic

The Top Application Traffic shows you the five applications that got the most traffic during the selected period. To increase productivity, block the applications or limit their bandwidth.

For more information, click any application and Kerio Control Statistics takes you to the Applications tab, where you can see further details about the application.



Top Visited Websites graph

The Top Visited Websites chart shows the five domains ranked by visits. The numbers in the chart show how many visits were made to all pages on that domain during the selected period.



For more information, click the chart and Kerio Control Statistics takes you to the Visited Sites tab, where you can see further details.

Top Requested Web Categories graph

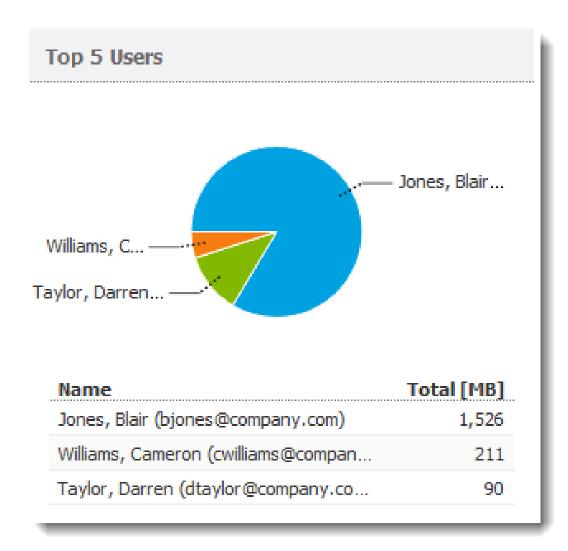
To see a chart of the most requested pages by category (such as IT or lifestyle), click **Web Categories**. The **Top Requested Web Categories** chart shows the top five categories requested during the selected period, as sorted by the Kerio Control Web Filter module.

The numbers in the chart reflect the total number of HTTP requests in the each category. Because the number may represent requests to multiple pages on a site. The number of requests is usually much higher than number of websites visited.

For more information, click the chart, Kerio Control Statistics takes you to the Web Categories tab, where you can see further details.

Top 5 Users graph

To see which users are using the largest amount of bandwidth, click **Users by Traffic**. The **Top 5 Users** chart shows the five users who transferred the greatest volume of data during the selected period.



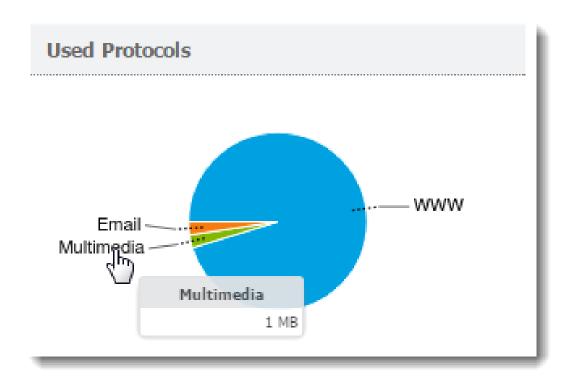
The chart includes individual users and the total volume of transferred data. Hover the pointer over a user's name to see the volume of data transferred by that user, in both total volume and by direction (download, upload).

To see statistics for a particular user, click the user's name in the chart. The results are displayed on the **Individual** tab.

The total volume of data transferred by a particular user is sum of all data transferred by the user from all hosts connected to the firewall.

Used Protocols graph

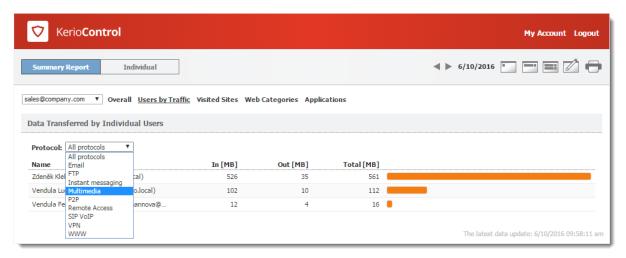
The Used Protocols chart of shows the total volume of data transferred in the selected period. Hover the pointer over a protocol to see the volume of data transferred by that protocol (see figure below).



This chart helps you recognize the type of traffic going between the local network and the Internet. If the Internet line is overloaded, you can use this information to set necessary limits and restrictions (traffic rules, URL rules, and so on).

Users by Traffic tab

The **Users by Traffic** tab shows the volume of data transferred by individual users in the selected group in both directions (download, upload). You can choose between all network traffic and traffic statistics filtered by network protocol.



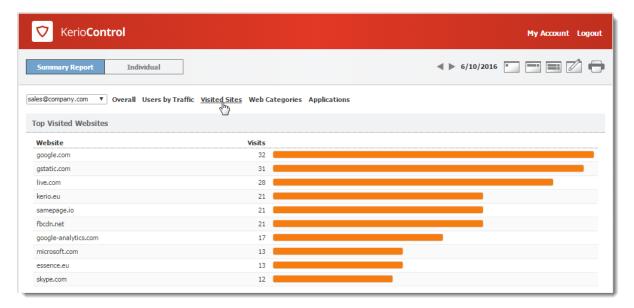
The table breaks down the total volume of transferred data by user. You can use the table to view all transferred data or only data transferred by a selected protocol (or protocol class). This allows you to get information about which users have transferred the most data via a particular service (for example, web browsing).

For better reference, Kerio Control sorts protocols by several predefined classes:

- Email: SMTP, IMAP, POP3 protocols and their secured versions.
- FTP: FTP protocol, including traffic over proxy server.
- Instant messaging: Online communication via services such as ICQ and Jabber.
- Multimedia: Protocols enabling real-time transmission of sound and video files, for example, RTSP, MMS, RealAudio.
- **P2P**: Peer-to-peer file-sharing protocols, for example, DirectConnect, BitTorrent, eDonkey, and so on. The traffic is counted only if Kerio Control detects that it is traffic within a P2P network.
- Remote Access: Terminal access to remote hosts such as Remote desktop, VNC, Telnet or SSH.
- SIP-VoIP: Voice over telephony via SIP protocol.
- VPN: Connection to remote private networks, for example, Kerio VPN, Microsoft PPTP, IPsec.
- WWW: HTTP and HTTPS protocols and any other traffic served by the HTTP protocol inspector.

Visited Sites tab

The Visited Sites tab gives you an overview of web pages users have visited.



These statistics tell you things such as:

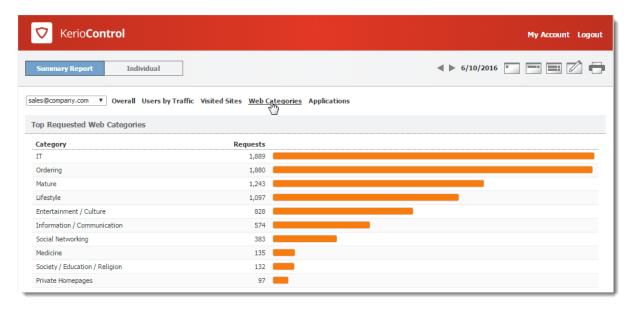
- What websites are visited by users regularly,
- Which users do the most browsing,

The chart at the top of the tab shows the most visited websites. The numbers in the chart reflect the number of visits to all pages on the site in the selected period.

Beneath the chart, you can see detailed statistics for each of the top ten websites.

Web Categories tab

The Web Categories tab gives an overview of popular web categories for the selected period.



The numbers in the chart show the total number of HTTP requests in each category. Because a number may include requests to multiple pages on a site. The number of requests is usually much higher than the number of visits shown for the top visited websites.

Beneath the chart, Kerio Control Statistics shows detailed statistics for each of the top 10 web categories.

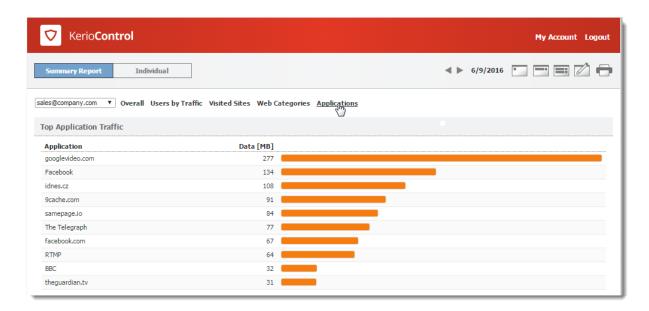
Web categorization is performed by Kerio Control Web Filter, an optional module of Kerio Control. To use web categories in your statistics, you need a valid license.

Applications tab



New in Kerio Control 9.1!

Kerio Control Application awareness includes Application visibility, which gives you the **Applications** overview in Kerio Control Statistics. You can find it on the **Applications** tab where the top ten web applications recognized by the Application awareness are displayed.

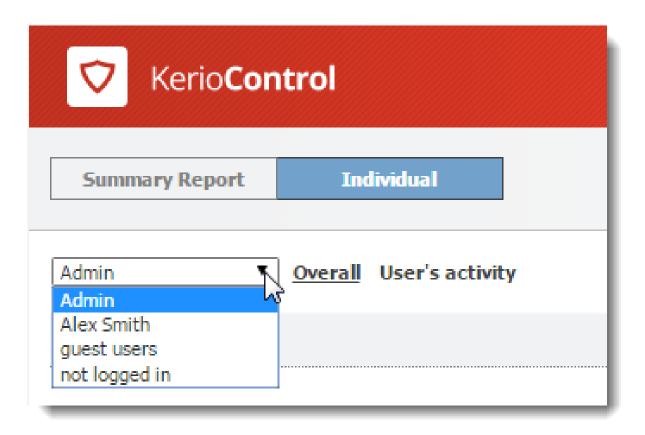


Beneath the chart, Kerio Control Statistics shows detailed statistics for each of the top 10 applications. You can see, for example, who uses each application from the top ten.

Application visibility is performed by Application awareness, an optional module of Kerio Control. To see Applications in your statistics, you need a valid license.

Reading individual statistiscs

To see detailed statistics for a particular user, click the user's name in a chart or table to switch to the **Individual** tab. Alternatively, you can click the **Individual** tab on the main page and choose a user's name from the drop-down list.

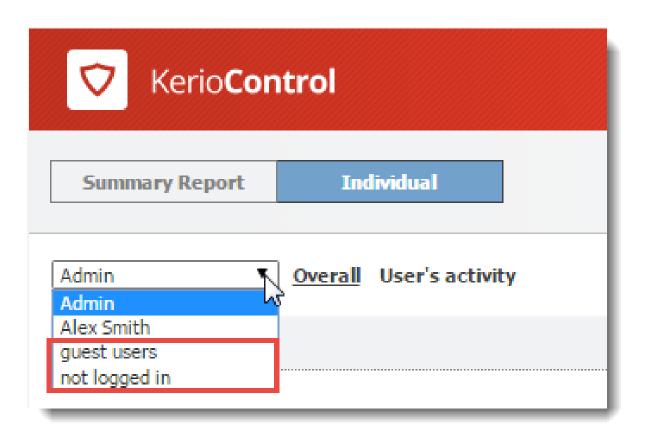


The charts and tables in Kerio Control Statistics provide useful information on which users use the Internet connection the most and make it possible to set necessary limits and quotas.

For details, see Viewing activity reports in Kerio Control Statistics.

Special users in Kerio Control Statistics

Except for your Kerio Control users and groups, you can see in the user list two more special users:



- guest users → Kerio Control gathers statistics for the guest network under the built-in guest users account. For details, see Configuring the guest network.
- not logged in \rightarrow Kerio Control gathers statistics for traffic which does not belong to any logged in user. For example:
 - firewall,
 - traffic rule enabling web access to certain pages without login,
 - user traffic if you do not require user authentication when accessing web pages. For details, see Authenticating users to Kerio Control.

Managing your Kerio Control Statistics account

Overview

Kerio Control Statistics is a web interface where you can view your own browsing statistics. It also includes tools for:

- Enabling 2-step verification
- Changing the password used to log in to Kerio Control
- Setting language preferences for the Kerio Control Statistics interface, reports and email alerts

Accessing the web interface

To open Kerio Control Statistics:

1. Launch your web browser and type your Kerio Control address.

The address has this pattern: https://server:4081/ where server refers to the name or IP address of Kerio Control, and 4081 represents a web interface



port.

If your browser displays a warning about a certificate invalidity, continue.

For more information, contact your Kerio Control administrator.

2. In the Kerio Control Statistics login page, type your Kerio Control username and password. If you do not know your credentials, contact your administrator.



3. Click Login.

Switching between Kerio Control Statistics and account settings

Kerio Control Statistics has two parts:

- Statistics displays statistics and your Internet activities.
- My Account enables you to change your password, set up 2-step verification, and check your Kerio Control quota.

Use the option in the upper right corner to switch to the other part of the interface.



Reading statistics and reports

See Viewing activity reports in Kerio Control Statistics and Reading managerial statistics and reports in Kerio Control.

Setting up 2-step verification

See Authenticating to the firewall with 2-step verification.

Checking your quota

In Kerio Control Statistics, you can check the upload/download quota set for your Kerio Control account.

This section of the interface provides information on the data volume downloaded/uploaded for the current day, week, or month. If your administrator has set up quota, Kerio Control Statistics displays your current usage as a percentage of your quota.

To see your quota:

- 1. In the **Kerio Control Statistics** interface, go to **My Account**.
- 2. On the Account tab, see the Transfer Quota Statistics section.



The starting day for the week or month can be changed. Contact your administrator for details.

Dialing and hanging up lines in Kerio Control Statistics

You can dial and hang up lines and view their status on the **Dial-up Lines** tab. This tab lists all dial-up lines defined in Kerio Control.

The **Dial-up Lines** section is visible only if you have rights for controlling dial-ups in Kerio Control.

To dial or hang up the line, click the link in the **Action** column.

The following dial-up details are shown:

- Name of the line in Kerio Control.
- Current state **Disconnected**, **Connecting** (the line is being dialed), or **Connected**, **Disconnecting** (the line is being disconnected).
- Action hypertext link that dials or hangs up the line when clicked (depending on its current state).
- Connection time.
- Volume of data transferred in either direction **Incoming** = from the Internet to the LAN, **Outgoing** = from the LAN to the Internet.

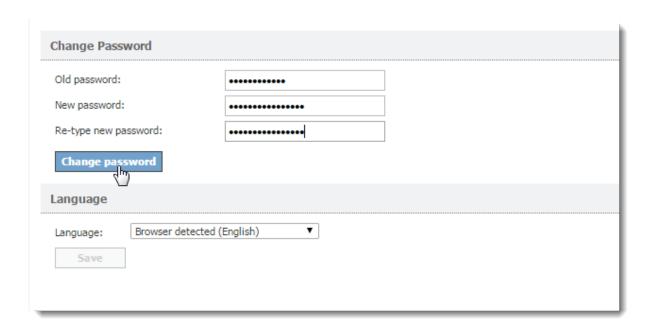
Changing your password



You can change your password only if your account does not belong to a directory service.

The middle section of the **Account** tab allows you to set your user password.

- 1. In the **Kerio Control Statistics** interface, go to **My Account**.
- 2. On the **Account** tab, type the old password once and the new password twice.
- 3. Click Change password.



Setting a language for Kerio Control Statistics and email reports

Kerio Control can display and send statistics, reports and email alerts in various languages. To change the language:

- 1. In the Kerio Control Statistics interface, go to My Account.
- 2. On the **Account** tab, scroll to the **Language** section at the bottom of the tab.
- 3. Select a language.
- 4. Click Save.

Kerio Control saves your settings and reloads the Kerio Control Statistics interface in the new language.



Language settings also affect the format of dates and numbers.

Authenticating to the firewall with 2-step verification

Overview

The 2-step verification means you can protect your Kerio Control account and access to your company network by requiring two independent authentication steps. With the 2-step verification enabled, when you want to access your company network or log into Kerio Control Statistics from the Internet, you must use your credentials to authenticate, and also type a special time-limited code generated by the special mobile application such as Google Authenticator. You can try the following applications:

- Google Authenticator Available for iOS, Android and Windows Phone
- FreeOTP Authenticator Available for iOS and Android (https://fedorahosted.org/)
- Authenticator for iOS (http://mattrubin.me/)
- Authenticator for Windows Phone (http://www.windowsphone.com/)
- WinAuth for Windows OS (https://winauth.com/)

The verification code is not required if your device is connected within the Kerio Control network. Kerio Control requires the code only if you use the Internet to access your company network:

- Through Kerio Control VPN Client/IPsec VPN client
- To use Kerio Control Statistics
- To use Kerio Control Administration

Enabling the 2-step verification

You can enable the 2-step verification in your account in Kerio Control Statistics.

If you administrator sets the 2-step verification as compulsory, you must follow the steps in this section to enable the 2-step verification in Kerio Control Statistics.

To enable the 2-step verification, you must pair your device with your Kerio Control account:

- 1. Install the authenticator application on your mobile device.
- 2. Log into your account in Kerio Control Statistics.
- 3. Click **2-Step Verification**.

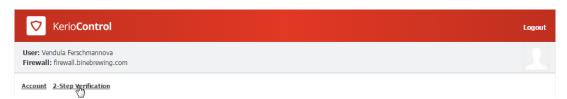


Figure 1 The 2-Step Verification tab

- 4. Open the authenticator application and scan a QR code or type the code shown below the QR code. You get a six-digit verification code that is time limited. The authenticator generates a new code every 30 seconds. All codes generated on the basis of the Kerio Control QR code are valid for Kerio Control authentication.
- 5. Type the verification code in Kerio Control Statistics, as shown below.
- 6. Click **Verify**.

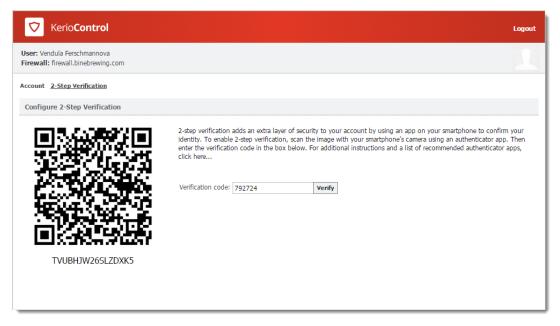


Figure 2 The 2-Step Verification tab

From now on, you authenticate with the verification code generated by the authenticator. For example, to connect to the Kerio Control Statistics page:

- 1. Type the Kerio Control Statistics URL in your browser.
- 2. On the login screen, type your username and password.
- 3. Click Login.

The 2-step verification page appears.

- 4. Open the authenticator and type the Kerio Control code in the box provided.
- 5. Select **Remember me on this device**. Your browser remembers the connection for the next 30 days from the last connection, so you do not have to type the code every time.
- Click Verify.

Kerio Control redirects you to Kerio Control Statistics.

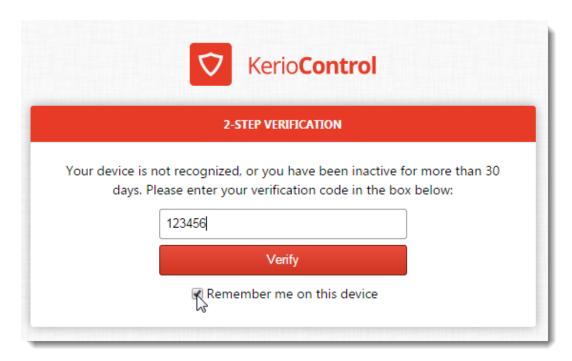


Figure 3 The 2-Step Verification tab

Disabling the 2-step verification

- 1. Type the Kerio Control Statistics URL in your browser.
- 2. On the login screen, type your username and password and then the verification code.
- 3. On the Kerio Control Statistics page, click **2-Step Verification**.



Figure 4 The 2-Step Verification tab

- 4. Generate a new code in your authenticator.
- 5. Type the code in the **Verification code** field.
- 6. Click **Disable**.

Kerio Control disables the 2-step verification for your account.

From now on, the 2-step verification is in the initial state and you can enable it again.

If you lose your mobile device, ask your system administrator to disable the 2-step verification for you.

If your administrator sets the 2-step verification as compulsory, you must enable it in Kerio Control Statistics again before accessing your company network from the Internet.

Enabling the 2-step verification when you use Kerio Control VPN Client

- 1. Install Kerio Control VPN Client 8.5 or later.
- 2. Connect to Kerio Control VPN Client as usual.
- 3. Kerio Control VPN Client automatically opens the 2-step verification page in your browser:
 - If you have a device paired with your account, type the new code from your authenticator.
 - If you don't have a device paired with your account, click **Continue** and follow the steps in Enabling the 2-step verification above.

Enabling the 2-step verification when you use IPsec VPN client

- 1. Connect to IPsec VPN client as usual.
- Go to your browser and open any page.
 Kerio Control opens the 2-step verification dialog box:
 - If you have a device paired with your account, type the new code from your authenticator.
 - If you don't have a device paired with your account, click **Continue** and follow the steps in Enabling the 2-step verification above.

Installing and configuring Kerio Control VPN Client for users

Overview

Kerio Control VPN Client enables an encrypted connection from individual systems (clients) to a remote private network via the Internet. The connection enables these clients to access the private network as if they were physically connected.

Three versions of Kerio Control VPN Client are available:

- Kerio Control VPN Client for Windows
- Kerio Control VPN Client for OS X
- Kerio Control VPN Client for Linux

If you have administration rights to your computer, you can establish a persistent connection. Persistent connections are reestablished whenever you restart your machine.

System requirements

For up-to-date system requirements, refer to:

http://www.kerio.com/control/technical-specifications

Prerequisites

To connect to the Kerio Control network, you need to know:

- Your Kerio Control username and password
- The name of the Kerio Control server or its IP address

Kerio Control VPN Client for Windows

1. Download and install Kerio Control VPN Client.

Kerio Control VPN Client starts automatically after installation and you can see the Kerio Control VPN Client window.

- 2. In the **Connection** field, type a name for the new connection.
- 3. In the **Server** field, type the Kerio Control server name or IP address.

If your administrator gives you more than one server name or IP address, separate them with semicolons.



- 4. In the **Username** and **Password** fields, type your Kerio Control username and password.
- 5. (Optional) Select Save password to save your password in Kerio Control VPN Client.
- 6. (Optional) You can select **Persistent connection** if you have administration rights to your computer.

Persistent connections are reestablished whenever you restart your machine.

7. Click Connect.

Kerio Control requires a valid SSL certificate to verify your connection when establishing the connection. If an SSL certificate warning appears, consult the warning with your administrator.



If Kerio Control VPN Client is running, Windows taskbar displays the

Kerio Control can require 2-step verification. For details, read Authenticating to the firewall with 2-step verification

Removing connections

To remove old or broken connections:

- 1. Open Kerio Control VPN Client.
- 2. In the **Connection** menu, select the connection.



3. Click the icon.

Kerio Control VPN Client asks you if you want to remove the selected connection.

4. Click Yes.

Kerio Control VPN Client removes the connection.

Changing a language

To change the language of the Kerio Control VPN Client interface:



1. Right-click the icon in the notification area of the Windows taskbar.



- 2. In the context menu, click **Settings**.
- 3. In the Kerio Control VPN Client Settings dialog box, select your preferred language.
- 4. Click **OK**.

Kerio Control VPN Client switches to the new language immediately.

Enabling/disabling balloon messages

A balloon message in Kerio Control VPN Client is a pop-up message that appears in the Windows taskbar at the Kerio Control VPN Client icon. To enable or disable balloon messages:



- 1. Right-click the icon in the notification area of the Windows taskbar.
- 2. In the context menu, click **Settings**.
- 3. In the Kerio Control VPN Client Settings dialog box, select Enable balloon messages.
- 4. Click **OK**.

Kerio Control VPN Client for OS X

1. Download and install Kerio Control VPN Client.

Kerio Control VPN Client starts automatically when you install it and you can see the **Kerio Control VPN Client** window.

- 2. In the **Connection** field, type a name for the new connection.
- 3. In the **Server** field, type the Kerio Control server name or IP address.

If your administrator gives you more than one server name or IP address, separate them with semicolons. Kerio Control VPN Client tries to connect to the first server. If the connection cannot be established, Kerio Control VPN Client can then try the next server.

4. In the **Username** and **Password** fields, type your Kerio Control username and password.



- 5. (Optional) Select **Save password** to save your password in Kerio Control VPN Client.
- 6. (Optional) You can select **Persistent connection** if you have administration rights to your computer (click the lock on the **Kerio Control VPN Client** window).

Persistent connections are reestablished whenever you restart your computer.

7. (Optional) Select **Show VPN status in menu bar** to display a status icon on the right side of the main menu bar when Kerio Control VPN Client is running.

Removing connections

To remove old or broken connections:

- 1. Open Kerio Control VPN Client.
- 2. In the **Connection** menu, select the connection.

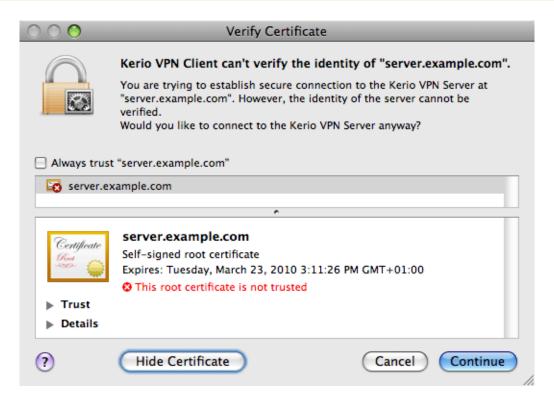
- 3. Click the **Remove** button.
 - Kerio Control VPN Client asks you if you want to remove the selected connection.
- 4. Click Yes.

Kerio Control VPN Client removes your connection.

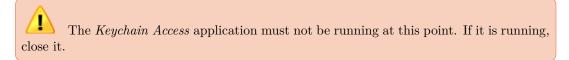
Troubleshooting SSL certificates

Kerio Control requires a valid SSL certificate to verify Kerio Control VPN Client when establishing the connection to Kerio Control. If an SSL certificate warning appears, the certificate is probably self-signed and you must insert the Kerio Control certificate in the system keychain manually.

A self-signed certificate is a certificate that your administrator generated for you in Kerio Control. The certificate is not signed by any certification authority.



1. In the **Verify Certificate** window warning, click the certificate image and drag it to the desktop. This creates a file with the certificate on the desktop (for example server.example.com.cer).



2. Run the Keychain Access application.

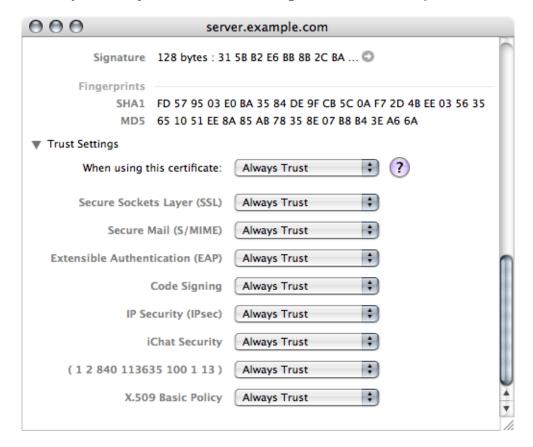
The Add Certificates dialog box displays.



3. Select the **X509Anchors** keychain.

To add a certificate, you need to be logged in as an administrator.

- 4. In the **Keychain Access** application, select the **X509Anchors** keychain, look up the new certificate (for example, server.example.com) and click to open it.
- 5. In the certificate window, scroll to the bottom.
- 6. Open the **Trust Settings** section.
- 7. Set the Always Trust option for the When using this certificate entry.



Installing and configuring Kerio Control VPN Client for users

- 8. Close all running applications and log out of the system.
- 9. Reboot the system and establish a VPN connection to Kerio Control.

From now on, Verify Certificate warning should not display.

Kerio Control VPN Client for Linux

Detailed information about Kerio Control VPN Client for Linux is included in the read-me file.

Troubleshooting

Kerio Control VPN Client generates logs of its own activity and detected errors. For details, read Installing and configuring Kerio Control VPN Client for administrators.

Configuring IPsec VPN client on Apple OS X with machine authentication by SSL certificate

Summary

When you want to connect an Apple OS X computer to your company network through IPsec VPN and authenticate with an SSL certificate, you must configure the IPsec VPN server in Kerio Control, create an SSL certificate and import the certificate to Keychain Access. Then you must configure the VPN client as L2TP over IPsec.

Configuring Kerio Control

You must:

- 1. configure an IPsec VPN server
- 2. generate and export a new SSL certificate in the PKCS#12 format for VPN clients

To do this follow these steps:

- 1. Setup IPsec VPN server to use certificates issued by a Local Certification Authority (see details in the Configuring IPsec VPN article).
- 2. Go to **Definitions** \rightarrow **SSL** Certificates.
- 3. Click $Add \rightarrow New Certificate$ and create a new certificate for VPN clients.



Tzpe the hostname, not the IP address.

- 4. Click **Apply** in the **SSL Certificates** section.
- 5. Export this certificate in the PKCS#12 format (see figure 1).
- In the Export Certificate in PKCS#12 Format dialog, use a password without national characters.
- 7. Check the Include all certificates in the certification path if possible box.

Kerio Control exports all higher certificates including the certification autohority (it is the default Kerio Control Local Authority in figure 1).

8. Click **OK**.

Kerio Control creates and exports the certificate to your computer.

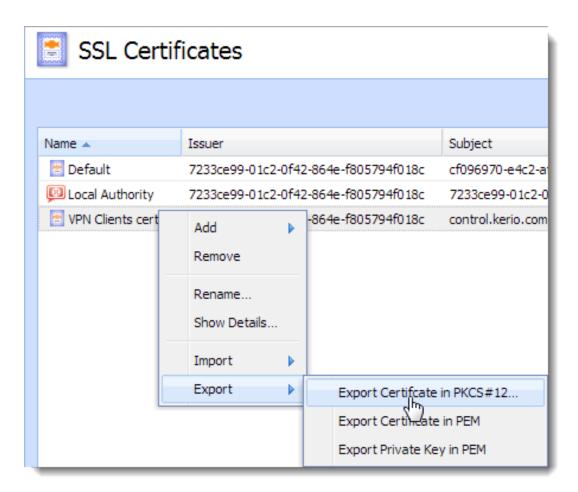


Figure 1 Export Certificate in PKCS#12

Importing the certificate

Import the SSL certificate to the Keychain Access utility in your Apple OS X:

- 1. Go to Applications \rightarrow Utilities \rightarrow Keychain Access.
- 2. Switch view to **System** keychain and unlock the keychain.



- 3. Drag the PKCS#12 file, drop it to the **System** keychain.
 - There are at least two Kerio Control certificates one or more certificates (blue certificate icon) and Certification Authority (gold certificate icon) in the Keychain Access.
- 4. Locate the imported Certification Authority (CA) in the **System** keychain.
- 5. Set the CA trust properties to **Always trusted**.
- 6. Locate the imported certificate and ensure the certificate is trusted. Since Mac OS X 7:

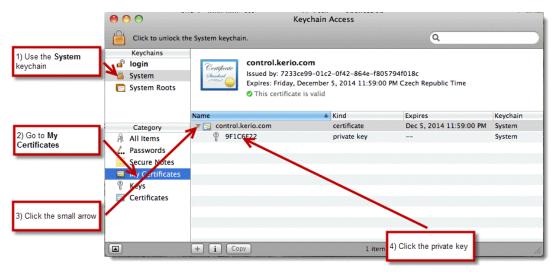


Figure 2 Mac OS 7 and higher settings

- a. In the **System** keychain, go to **My Certificates** (see figure 2).
- b. Find your certificate and click the small arrow.A private key appears.
- c. Double-click the private key and go to the **Access Control** tab.
- d. Click the + icon and add the following executable to the list: /usr/sbin/racoon

If you don't see the /usr folder when browsing for the executable, use the Show hidden files.

The shortcut is cmd-shift-. (cmd-shift-dot).

e. Click **Open**.

Keychain Access uses your SSL certificate.

Creating VPN client on Apple OS X computer

You must create a VPN connection based on L2TP over IPsec:

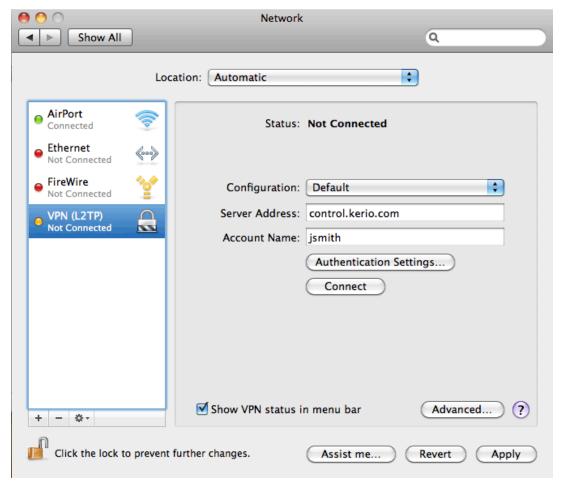
- 1. Go to System Preferences \rightarrow Network.
- 2. In the **Network** dialog, click the + icon and add **VPN**.
- 3. Select the **L2TP over IPsec** mode.
- 4. Type a hostname of Kerio Control to **Server Address** and your Control's username to **Account Name**.



 ${\bf Figure~3} \quad {\bf The~Network~dialog}$



- 5. Click Authentication Settings.
- Set user authentication by password and type your Kerio Control's password.
 MS-CHAPv2 might be needed.
- 7. Set Machine Authentication by a certificate, click Select and select the certificate from step 6. Apple OS X can connect to Kerio Control through IPsec VPN.



 ${\bf Figure}~{\bf 4}~~{\bf Type}~{\bf a}~{\bf hostname}~{\bf of}~{\bf Kerio}~{\bf Control}~{\bf and}~{\bf your}~{\bf user}~{\bf name}$

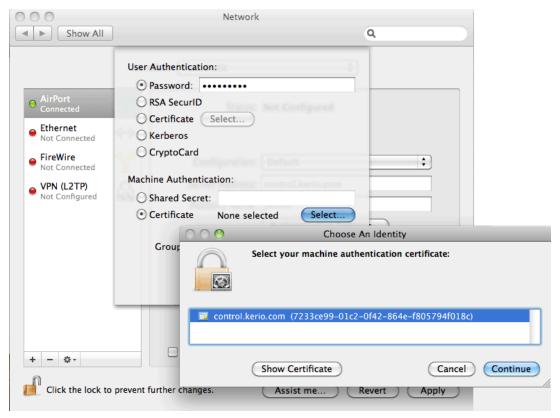


Figure 5 Set Machine Authentication by a certificate

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