

CloudOpt Speed-as-a-Service

Quick Start Guide

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Chapter 1 Introduction

Welcome to CloudOptimizer Speed-as-a-Service!

CloudOpt Speed-as-a-Service is designed to accelerate your access to the cloud. Whether you use a cloud-based service to backup and restore your data, offload compute tasks, or simply access traditional web services that are based out of the cloud, Speed-as-a-Service can save you time and money by optimizing all of your communications with any major cloud service provider.

How it Works

Unlike traditional WAN optimization products, Speed-as-a-Service requires no hardware and very little setup or specialized IT knowledge. To begin using Speed-as-a-Service, all that you need to do is register, download, and install our client software, which is available for Windows and Linux systems.

There is no hardware to set up and no complicated network configuration. The CloudOptimizer client will connect to our network of CloudOptimizer servers that already run in popular cloud provider regions. You can keep your head out of the clouds and focus on what you do best.

Speed-as-a-Service doesn't dictate how you work. We provide you with an optimized, user-transparent tunnel to the cloud providers of your choice. You continue to use the same software that you always have. If your tools communicate over TCP, then we can help to speed them up and reduce your data transfer costs.

We accomplish this through three primary techniques:

- Byte-level deduplication
- Compression
- Protocol optimization

When you install the CloudOptimizer client software on your computer, it checks to see if any of the addresses to which you send traffic are located within the cloud regions that you specify. If so, the client software intercepts this traffic and relays it to the Speed-as-a-Service network in that cloud.

CloudOptimizer forms an optimized and encrypted tunnel between your computer and the Speed-as-a-Service network. We compress, reduce redundancy, and repackage your connections in order to send the smallest possible amount of data between you and the cloud.

If you have sent data to the cloud before, CloudOptimizer will not send it again; the Speed-as-a-Service network caches that byte level data and instantly sends it to your destinations in the cloud without re-uploading. Data that you access frequently will also be cached on your computer, meaning that you don't need to wait for it to download every time.

Depending on the types and amounts of data that you transfer, your savings can be dramatic. If you regularly move data to the cloud that is highly redundant and very compressible, CloudOptimizer may reduce your data transfer by more than 90%. Most customers experience a total savings of about 50% over the long-term.

Installation Requirements

The CloudOptimizer Windows Client support Windows XP, Windows 7, Windows 8, Windows Server 2008, and Windows Server 2012. There may be additional requirements for each of these systems.

The CloudOptimizer Linux Client supports the long term support versions of Ubuntu Linux and CentOS Linux and many other derivative or related versions.

For more details about system requirements, please refer to the following article in our Knowledge Base:

[CloudOptimizer Client Software System Requirements](#)

Differences Between Windows and Linux Clients

While our Windows client focuses on ease of use, our Linux client focuses on flexibility and user control. The reasons for this are largely historical, although there are also differences in philosophy between Windows and Linux users in many cases. Most of this guide does not apply to our Linux client, other than a brief installation procedure in Chapter 2. For more in-depth treatment of Linux client configuration, please refer to our knowledge base at <http://kb.cloudopt.com>.

Chapter 2 Getting Started

It is easy to get started with CloudOptimizer Speed-as-a-Service. You can sign up for a 15 day free trial to try out the system and evaluate its performance with your cloud applications. There are three steps that you need to complete:

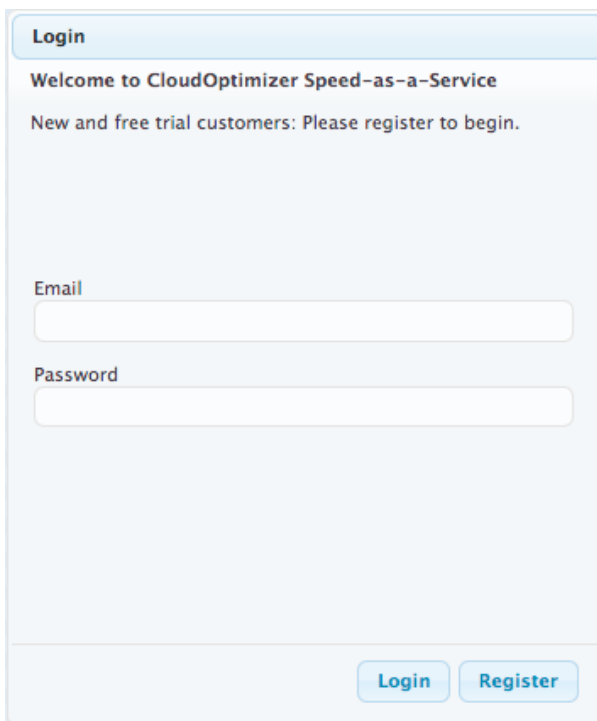
1. Sign up for Speed-as-a-Service.
2. Create a client profile.
3. Download and install your pre-configured client software.

This process should take about ten minutes.

Step 1 Sign up for Speed-as-a-Service

To sign up with CloudOpt, open your web browser and navigate to the following site:

<https://dashboard.cloudopt.com>



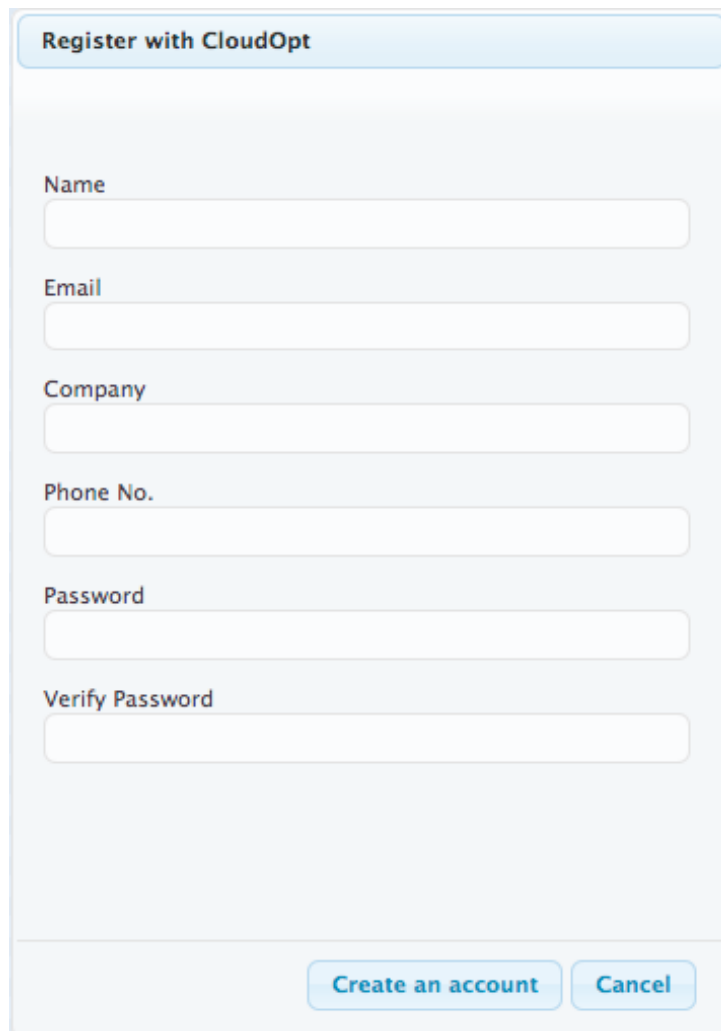
The screenshot shows a web form titled "Login" with a light blue header. Below the header, the text reads "Welcome to CloudOptimizer Speed-as-a-Service" and "New and free trial customers: Please register to begin." There are two input fields: "Email" and "Password". At the bottom right, there are two buttons: "Login" and "Register".

The *Speed-as-a-Service Dashboard* is a web site where you can manage your CloudOptimizer client software. You can use the Dashboard to

add clients, reconfigure clients, check your data transfer usage, pay for your subscription, and more. In this case, we are going to register for a free trial. If you want to purchase a subscription, registering for a free trial is first step, so please follow along.

At the Login screen, click the *Register* button in the lower right corner. If you are signing up for a free trial, you don't need to provide any payment details at this time.

Fill out the registration form and click the *Create an account* button to complete your registration.



The registration form is titled "Register with CloudOpt" and contains the following fields:

- Name
- Email
- Company
- Phone No.
- Password
- Verify Password

At the bottom of the form, there are two buttons: "Create an account" and "Cancel".

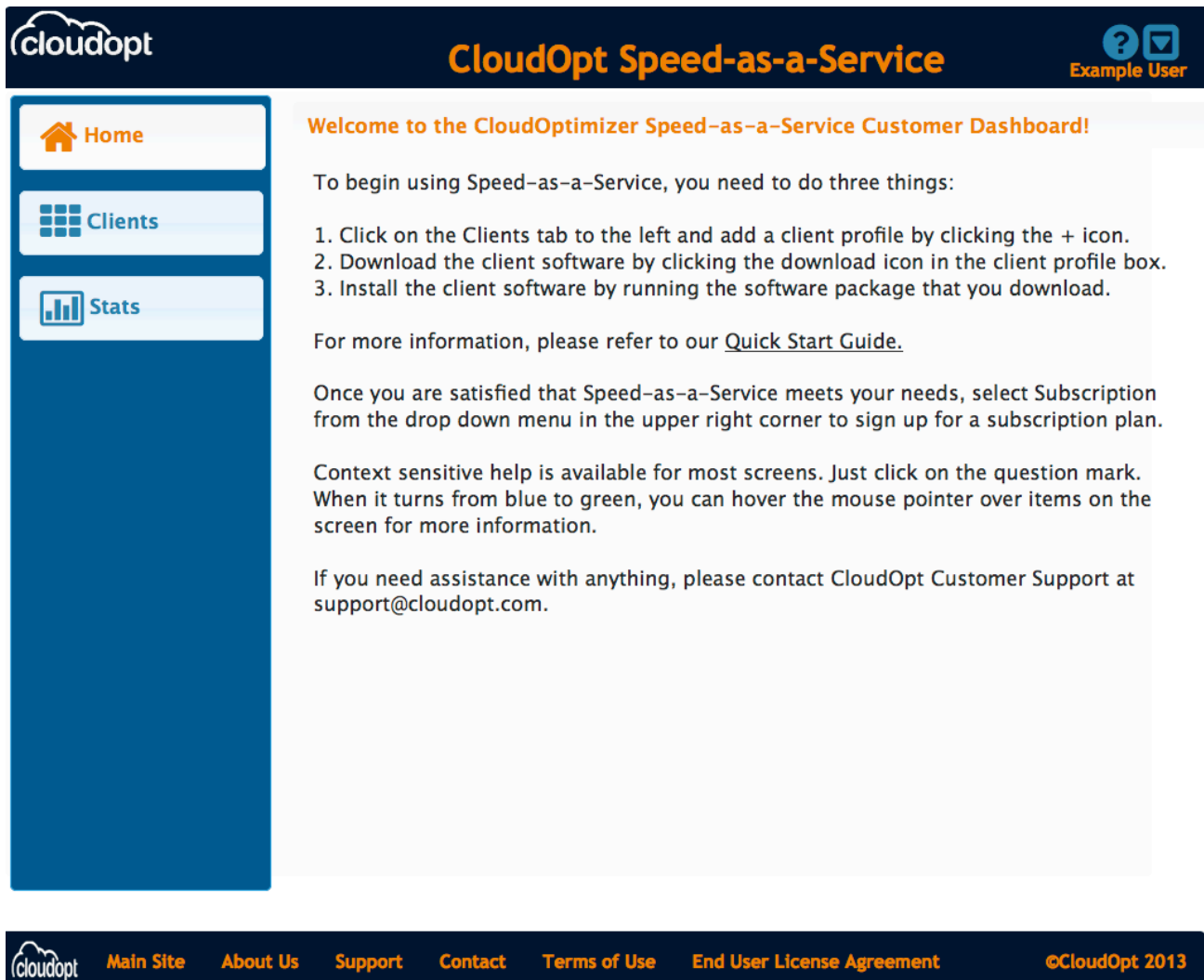
After you register, we will send you an email with a link that you must click in order to activate your account. If the email doesn't appear within ten minutes, please check your spam folders. The email sender is speedasaservice@cloudopt.com and the title is "Welcome to

a Faster Cloud.” Once you activate, you can log in to the Speed-as-a-Service Customer Dashboard.

Take a moment to familiarize yourself with the layout of the Customer Dashboard.

On the left, there are three tabs:

- *Home* returns you to this screen.
- *Clients* allows you to add, delete, and configure client profiles.
- *Stats* shows you data transfer statistics for your clients.



In the upper right corner, there is a drop-down menu that provides access to your account settings and subscription information and also provides the option to log out of the Dashboard.

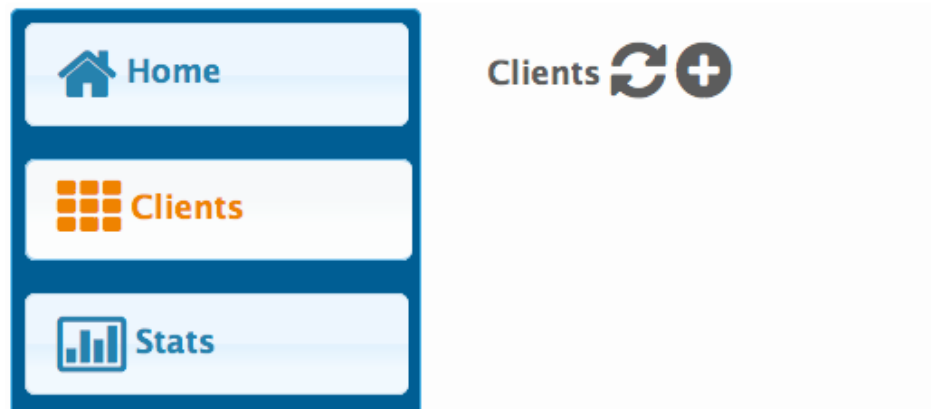
The orange question mark, which is found on most pages of the Dashboard, provides context-sensitive help.

Step 2 Create a Client Profile

Before you can download and install the CloudOptimizer client software, you must create a *client profile*. The client profile defines the clouds and regions to which your traffic will be optimized.

Speed-as-a-Service subscriptions apply to a specific cloud and region. For example, if you want to optimize data between the Amazon AWS US-East region and the Windows Azure West region, you would need two subscriptions. When you create a client profile, you will select the regions for which that client optimizes traffic and the software that you download will be preconfigured and ready to use.

Click on the Clients tab.



You will be taken to an empty screen, because you have not yet defined any client profiles

Click the plus icon to add a new client profile.



Enter a name for your new client profile. The name is descriptive and should have meaning to you. Client profile names must be unique.

Speed-as-a-Service free trials are limited to the following cloud regions:

- * Amazon AWS US-East
- * Amazon AWS US-West-1 (Northern California)
- * Amazon AWS US-West-2 (Oregon)
- * Amazon AWS EU
- * Windows Azure North Central
- * Windows Azure West

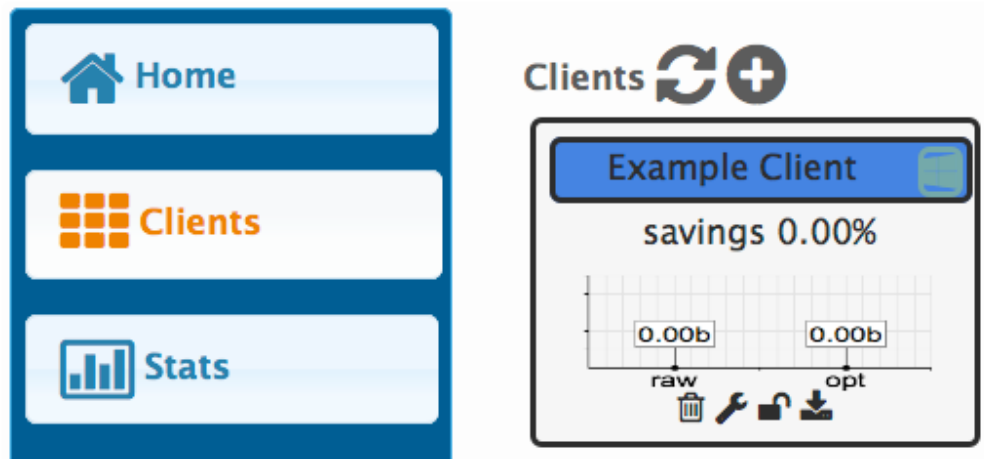
Choose the appropriate regions from each of the cloud provider tabs.

Other Amazon AWS, Windows Azure, Google Compute Cloud, and RackSpace regions are available, but require a reservation. If you need to evaluate Speed-as-a-Service for another cloud or region, please contact CloudOpt Customer Support for assistance.

Select *Windows* or *Linux*, according to the operating system of the computer on which you will run the CloudOptimizer client.

When you are satisfied with the settings that you have chosen, click the *Done* button. If you make a mistake or aren't sure of the settings that you need to use, you can edit the client profile later.

The new client profile will appear in your *Clients* screen.



Make note of the four icons at the bottom of the client profile box.

- The trash can icon deletes the client profile.
- The wrench icon allows you to edit the client profile.
- The lock icon allows you to disable the client profile.
- The down arrow allows you to download the client software.

Step 3 Download and Install the Client Software

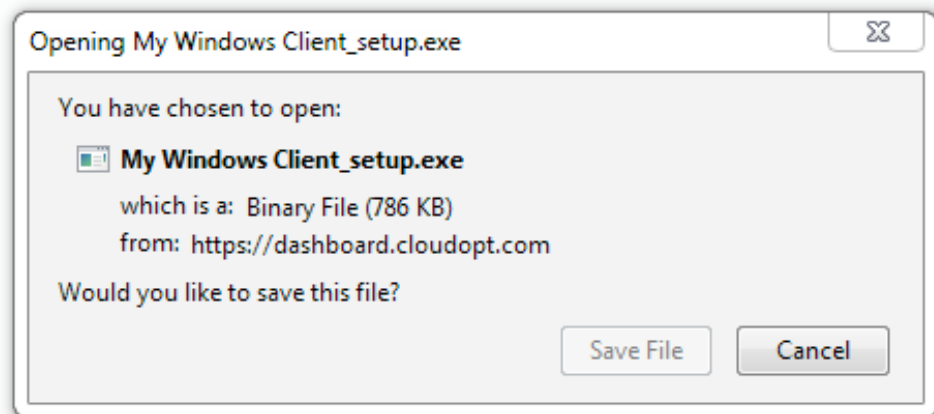
Now that you have created your client profile, the only remaining tasks are download and installation of the client software.



To download, click the downward pointing arrow icon in the client profile box.

From here, please follow the procedure for your operating system.

Windows Microsoft Windows Installation



When prompted, save the installation file.

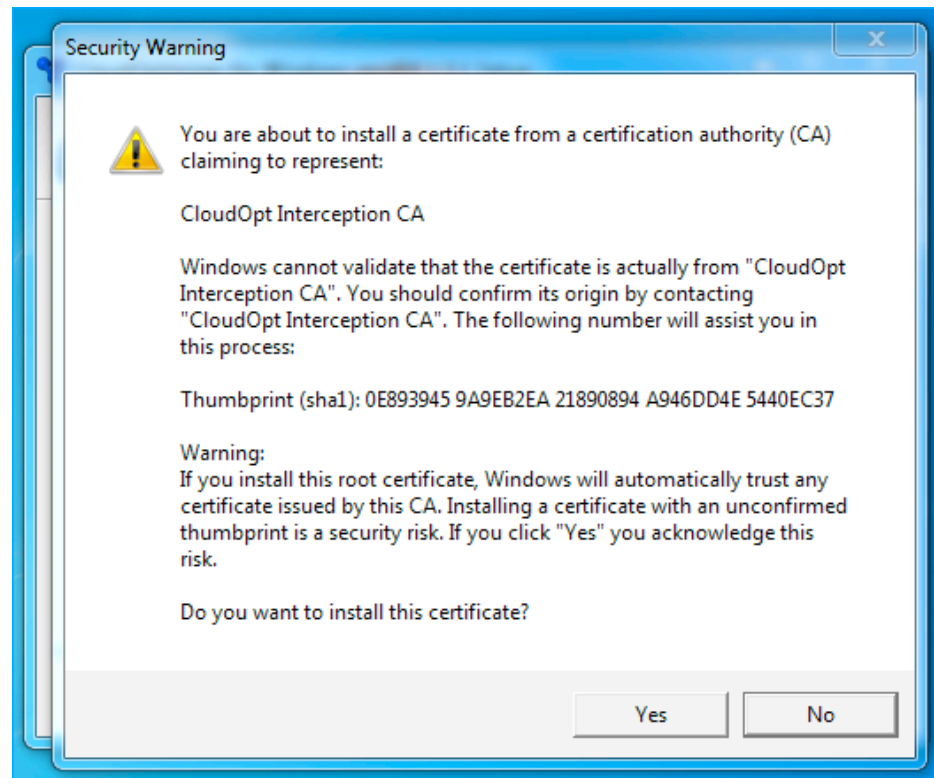
By default, the file will be saved to your *Downloads* folder. Locate the file and double-click it in order to begin installation.

The installer will download additional files and then prompt you through the few steps in the installation process.

When presented with the software license agreement, read the license and click the *I Agree* button to continue. Acceptance of the license terms is required in order to install the software.

The installer will next prompt you to allow installation of our SSL certificate. CloudOptimizer uses this certificate to intercept SSL-encrypted connections. CloudOptimizer automatically decrypts SSL connections on your client, sends the connection over our secure tunnel to the Speed-as-a-Service network, and finally delivers the content to your destination as originally encrypted. This allows CloudOptimizer to apply optimizations that would otherwise be impossible with encrypted content.

You can choose to answer *No*, but CloudOptimizer will be unable to optimize SSL-encrypted connections if you do. Most users should answer *Yes* to this prompt.



Click *Finish* to end installation and begin using CloudOptimizer.

You can now skip to Chapter 3.

Linux

Linux Installation

On Linux, when you click the download button, you will be prompted to save a key file that is used to connect to the Speed-as-a-Service network. The rest of the installation process is manual.

Download the CloudOptimizer Linux client from the following URL:

<https://download.cloudopt.com/cloudoptimizer-install.tar.gz>

What happens next is variable, depending on exactly what Linux distribution you are running and how you have your system configured. The file that you download is a gzipped tar archive. You must uncompress this file and run the script within it. You may be

able to do this simply by double clicking the file if you are using a graphical interface.

At the command line, you should use the following command:

```
tar -xzvpf cloudoptimizer-install.tar.gz
```

You then must execute the shell script *cloudoptimizer-install.sh*, which will prompt you through the installation process for CloudOptimizer.

When installation is complete, move the key file that you downloaded into the *certs* directory within the CloudOptimizer home directory. You can determine the CloudOptimizer home directory with the following command:

```
cloudconfig get /config/home
```

Once you have placed the key in the *certs* directory, configure CloudOptimizer to use the key, with the following two commands:

```
cloudconfig set /config/ssl_key  
/path/to/cloudoptimizer/home/certs/My Linux  
Client.key
```

```
service cloudoptimizer restart
```

CloudOptimizer comes preconfigured to use the Amazon AWS US-East region.

For more information about installing the CloudOptimizer Linux Client, please refer to the following article in our knowledge base:

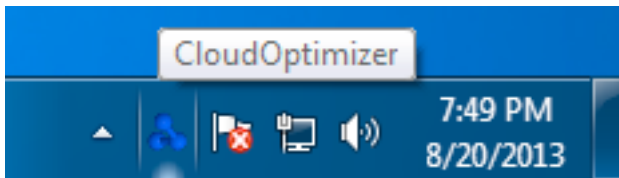
[Installing CloudOptimizer Client Software](#)

Chapter 3 Using the CloudOptimizer Client

From the moment that you completed installation, you began using the Speed-as-a-Service network. Every connection that you make to cloud regions to which you are subscribed will be optimized. If that is all that you care about, you can skip the rest of this guide for now. Sooner or later, you may want to make some changes. This chapter takes you on a brief tour of the options.

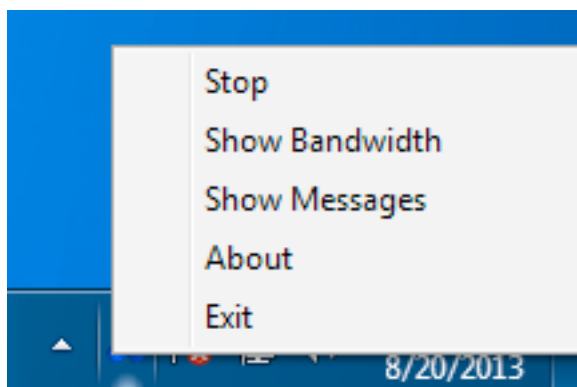
Local Client Features

You can access the CloudOptimizer client from your computer's icon tray:



The icon is three blue spheres connected by two lines.

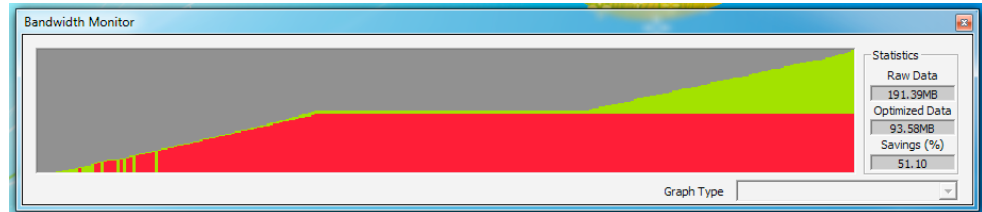
You can access the CloudOptimizer command menu by right clicking the icon:



When CloudOptimizer is running, the top item in the menu is *Stop*. When CloudOptimizer is not running, the top item is *Start*.

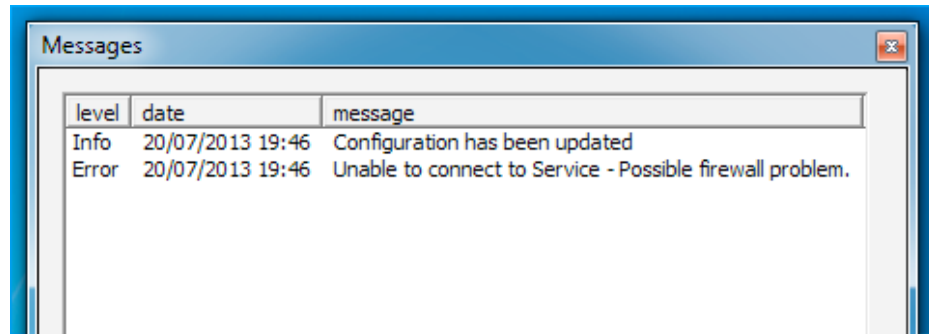
Most customers will leave CloudOptimizer running all the time. This way, any connections to the cloud will be optimized. You may wish to disable CloudOptimizer to perform testing or troubleshooting. Simply select *Stop* from the menu to disable CloudOptimizer and select *Start* when you are ready to enable the service again.

Show Bandwidth allows you to monitor your data transfer performance from your computer. You can also view data transfer statistics in the Speed-as-a-Service Dashboard, but the client shows real-time statistics, while the Dashboard shows accumulated data.



The graph shows optimized data in green and unoptimized data in red. It is normal to see optimization increase over time, as CloudOptimizer begins to find redundancy in the data.

Show Messages displays status messages received from the Speed-as-a-Service network or local errors that require your attention.



level	date	message
Info	20/07/2013 19:46	Configuration has been updated
Error	20/07/2013 19:46	Unable to connect to Service - Possible firewall problem.

For example, this message box shows both a normal status message from the network (Configuration has been updated) and an error message that will require user intervention (Unable to connect to service).

You can find additional information about CloudOptimizer at the CloudOpt Knowledge Base:

<http://kb.cloudopt.com>