General comments about Clouds

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Introduction

The use of the “Cloud” in the Internet is becoming very popular. This paper is an attempt to examine what type of uses an ordinary person may want to do with the features that a Cl;iud service can provide. It was triggered by consideration of the Open Source development known as OwnCloud.

Implementing OwnCloud on own machines

I intended to implement OwnCloud somehow to get a feel for what it could do. However, when I began to get involved in the details of what was required, I realised that it was beyond what I would want to sue it for, So the session this month changed into a discussion on the use people have for Cloud services, and what type of thing is attractive for normal everyday use.

If you do wish to use your own Cloud then you will get involvoed in the implementation of a number of services that may not be what you really want to do, or at least is not worth the effort.

If you wish to implement OwnCloud yourself on your own machines at home, then beware of the following points.

1. The full implementation involves a full LAMP stack (Linux + Apache + MySQL + PHP). That entails knowing how to maintain and administer several different services.
2. Linux is probably easy if you already use it.
3. Apache is a webserver. Here you will need to understand the uses of accounts and permissions and ensure that the Apache server can access only what you want it to. There are alternatives to Apache, like Nginx and Lighttpd, but the administration issues are the same for all.
4. MySQL is a database system, also requiring knowledge of its own restricted access requirements when coupled with a webserver. The other alternatives, like PostgreSQL or SQLite have the same sets of problems.
5. PHP is a straightforward language requiring very little extra administration ability, but if you write your own PHP code, then there are very serious security traps you must be aware of and avoid.

In addition to these, you will also have to ensure that your contract with your ISP will allow you to use a server on a residential line, ensure you can get access your line from outside (e.g. by fixing your IP address) , and have configured your router to allow incoming requests to be routed to the correct server on your network.

In any case, it would be essential that you become adept at managing the security of the site. In particular, you must guard against intrusions at all times, and this is probably beyond what a member of the public would wish or even be capable of.

Using OwnCloud on a commercial web host

In this case, the web host will take all the administration over, but you will become dependent on them allowing you to implement a server probably different from the one they would normally supply. To handle the access to it, you may have to implement encrypted SSL protocols, but they will need certificates, and could cost a significant amount, depending on the web host's facilities.

Only consulting with your hosting provder will clarify what can be done, and what the cost will be.

OwnCloud on specialist providers

If you go to the website of the organisation that supports OwnCloud (owncloud.org) there is considerable useful information on how you can use it, including a list of smaller commercial companies that explicitly use OwnCloud to supply cloud facilities. Have a look to see whether any of those will suit your needs. The advantages are that they will manage the website and security of the site for you. Some look quite reasonable in price.

Why would you use the Cloud?

We had a discussion on the uses of the Cloud, and the general impression was – not for much for most people. The most common are:

1. Access to contacts from mobile phones, and the ability to keep everything in sync. There are apps for smart phones which can do this when associated with specific providers, like Apple of Google. These work well.
2. Sometimes some files are required elsewhere, but this is less common.
3. For some collaborative efforts (e.g. for a charity), then Google Docs is very useful.

But in general, the features provided by commercial operators seemed to be very attractive for those who need access on-the-go.

How safe is your information?

When using another party to hold your data, then there are some points to bear in mind:

1. Is the supplier likely to close down? Some e-mail providers have done this in the past, so you need a Plan B for when that happens.
2. Is the data encrypted? You may not mind whether the data is held in encrypted form. Whether it matters is your decision. For synchronising simple files, then there are simple methods of ensuring only encrypted files are sync'ed. If you are asking about this, then it is not wise to rely on the cloud's encryption, but do it yourself.