

# What is Cloud Computing?

And its implications on sexual exploitation of children online

## FACTS

### How does it work?

Traditionally when people created something on a computer or wanted to store things like their music collection or pictures, they would have to put it on a hard drive or another medium such as a CD or USB stick. When you ran out of space, you had to buy or get additional hardware for storage. Similarly, if you wanted to run a programme, the software would have to be downloaded and installed on your device. If there was no room on the device, you could not use the programme.

The arrival of the Internet has completely changed that position. It has allowed for the development of cloud computing, often known as simply "the cloud." This means we can now use remote servers to store practically any amount of files or data and programmes or services can also be run on them. Because the Internet is global and always turned on, we now live in a world of mobile computing where everything we do can be backed up or stored on the cloud at any time.

The companies that offer the cloud service host the necessary infrastructure and applications and ensure its maintenance and security. Users can access the services over the Internet and all they need is a device, an Internet connection and a service account. This frees up users from having to buy, install or manage hardware and software on their personal computer.

Cloud services are instantly available for users (on demand) and are provided for free or on a pay-for-use basis.

Ever more services and personal data are moving into the cloud, such as e-mail (e.g. gmail), pictures (e.g. Instagram), mobile phone applications, movies-on-demand (e.g. Netflix), banking services and server/ storage capacity.



## Use of cloud services by offenders



Offenders also utilize cloud services such as "cyber lockers" or storage space online by uploading child sexual abuse material (CSAM) to 'their' locker. This locker is password-protected and its content can only be retrieved by logging into a personal account online. Offenders can share

access to the content by providing the password or username for free or in exchange for CSAM or money. The company providing the service typically will have no knowledge of what is being stored inside the lockers.

This cloud storage space can be used e.g. by travelling child sex offenders who have created child abuse images abroad in order to reduce the risk of detection by the authorities. Instead of having to post or carry the material home, the offender uploads it to the cloud and accesses it upon return.

The emergence of cloud computing poses special challenges for law enforcement. This is partly due to the volume of files moving across the Internet and partly because a lot of this data is now encrypted\*.

There are also jurisdictional issues; providers offering cloud services host the required physical infrastructure around the world, catering to clients from everywhere. This then poses difficulties in determining which jurisdiction's law enforcement, online service providers and other parties are responsible for follow-up, investigation and prosecution.

\* Please see factsheet: What is Encryption?