



# WHAT IS CLOUD COMPUTING?

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Lately, everyone is talking about *The Cloud*. Have you moved to *The Cloud*? Where, exactly, is this mystical place called *The Cloud*? Is that where *Cloud Computing* happens? How do I get there? Twenty years ago, a picture of a cloud was used to represent the Internet. Is this what you mean? Is *The Cloud* really just the Internet? Well, yes... sort of.

Think of cloud computing as a bunch of companies that sell computing power. Their customers access this computing power through the Internet. That's it—nothing magical at all.

Cloud computing means using the computers of a Cloud Service Provider (CSP) to store, access, and manipulate data and programs over the Internet. CSPs invest heavily in equipment, software, and applications and then sell the use of these to their customers.

## WHY WOULD I USE THE CLOUD?

Cloud computing has the potential to transform how organizations do business by enabling convenient, on-demand access to a shared pool of configurable computing resources. The following list includes some of the benefits of cloud computing:

- Performance:** CSPs can dynamically allocate resources that align with the growth of projects and businesses to support higher loads during peak demand. They can deliver just the right amount of computing power at just the right time. To remain competitive, CSPs also regularly upgrade their systems to the latest generation of fast and efficient computing hardware.
- Productivity:** Users can access their files, email, or applications from anywhere, which enables productivity and collaboration when employees work from various locations. Documents can be shared between users,

yet remain in the same place.

- Reliability:** Cloud computing makes data back-ups, disaster recovery, and business continuity easier and less expensive because data can be mirrored at multiple sites on the cloud provider's network.
- Cost:** Users avoid the high capital costs of buying equipment and software. They also avoid the costs associated with operating and maintaining their own data centres.



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## WHERE DO I SIGN UP?

Not so fast. There's just one little thing that we haven't yet discussed, and that's the security and privacy of the information you put in the cloud.

## HOW DO I ENSURE MY DATA IS SECURE?

It's actually not that different from ensuring your existing networks are secure. The concepts are the same, and the procedures, policies, and tools you need to keep your information private already exist.

Use your existing IT programs, processes, and policies as a starting point. You just need to identify any gaps related to the cloud environment. Those gaps can be filled by updating existing policies and procedures or creating new ones where needed.

## WHERE CAN I LEARN MORE?

To learn more about cloud computing, check out the following publications:

- *ITSAP.50.111 Models of Cloud Computing* explains the cloud computing service and deployment models offered by CSPs.
- *ITSP.50.110 The Fundamentals of Cloud Security* explains the security concepts you should understand before procuring services from a CSP. Note that this is a technical document intended for security practitioners.

To learn how the federal government is using cloud computing to improve information technology service for Canadians, visit the Treasury Board of Canada Secretariat's Government of Canada Cloud Computing webpage.

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