Step 3: Research Typical Architectures of Cloud Deployments

In the previous step, you considered best practices and trends in the cloud industry. Next, you will have to look at the kinds of architectures needed for cloud.

Because most elements of cloud deployments are implemented in a virtualized environment controlled by software, the degree of freedom in defining your deployment of [cloud reference models](https://lti.umuc.edu/topic) is unprecedented. You can define the number of virtual servers required and the configuration, and even change them dynamically as needed. You can also define your virtual local area networks (LANs) and subnets, and place servers in them to implement network security requirements.

The basic cloud deployment components are cloud consumer, cloud provider, and cloud carrier, with cloud brokers and auditor as possible additions.

[Typical cloud architectures](https://lti.umuc.edu/topic) of cloud deployments vary from single server (suitable for proof-of-concept engagements) and multiserver architectures with various servers carrying different software components and occupying different security zones, to geographically dispersed deployments to achieve high availability, resilience, and speed of delivery. There are several [issues to consider when selecting a server architecture](https://lti.umuc.edu/topic), including cost, scalability, performance, and use of management.

For this step, research the typical architectures of cloud deployments and begin to consider what might be a good fit for BallotOnline. Discuss your findings and thoughts with your colleagues in the [Discussion: Cloud Architectures](https://lti.umuc.edu/discussion) forum.

In the next step, you will continue research, this time on trends in cloud computing as well as issues that can arise during data migration.