The Cloud

Objectives

- Understand what "The Cloud" is
- Discuss key components of "The Cloud"
- Explain why "The Cloud" is so important

Definition

- NIST SP-800-145 defines cloud computing as:

- "A model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model promotes availability and is composed of five essential characteristics, three service models, and four deployment models."

How I define "The Cloud"

- It's really just someone else's computer.
- On someone else's network
- With someone else's policies in place

As a Service

- SaaS
  - Software
  - Think of software on your computer
- PaaS
  - Platform
  - Think of your operating system
- IaaS
  - Infrastructure
  - Think of your computer
- Others
  - Network
  - Data

Components of the cloud

- Rapid, often on demand deployment
- Flexible architecture
- Resource pooling
- Resource measuring

Reference Architecture

- NIST 500-292
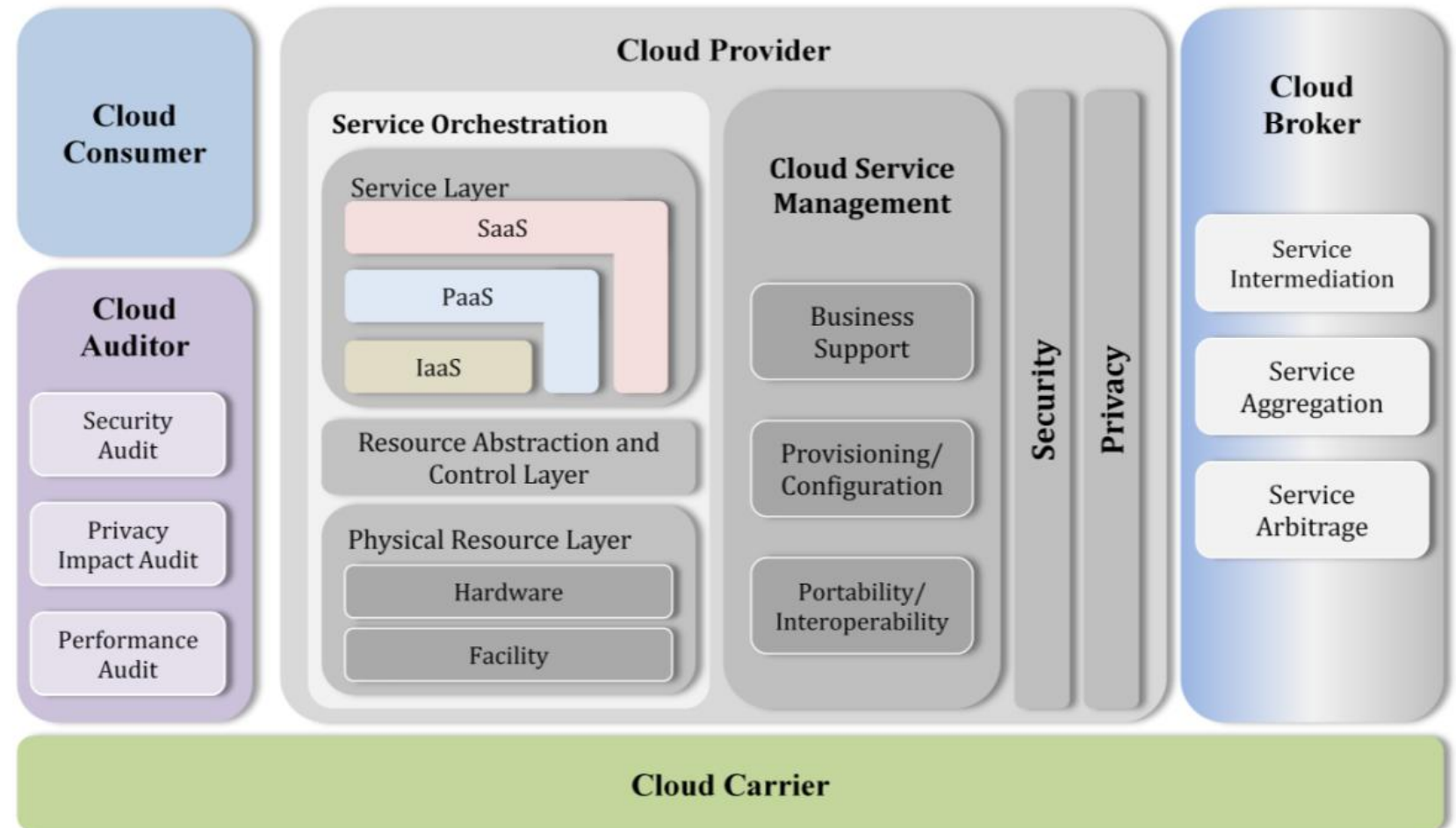
Why is the cloud so important

- Allows us to rapidly deploy
- Allows diversification of architecture, location
- Security
- Sometimes decreased workload
- Disaster Recovery