# Understanding Cloud Service Models

This playbook provides a step-by-step guide to understanding the three primary cloud service models: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). It outlines the characteristics of each model and helps determine the appropriate scenarios for their use.

### Step 1: IaaS Overview

Get familiar with Infrastructure as a Service (IaaS), which provides virtualized computing resources over the internet. IaaS allows customers to rent virtual servers, storage, and networking to build their own IT platforms without investing in physical infrastructure.

### Step 2: PaaS Overview

Learn about Platform as a Service (PaaS), which offers a development and deployment environment in the cloud. PaaS provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the underlying infrastructure typically associated with the process.

### Step 3: SaaS Overview

Understand Software as a Service (SaaS), a software distribution model in which a third-party provider hosts applications and makes them available to customers over the internet. SaaS eliminates the need for organizations to install and run applications on their own computers or in their own data centers.

### Step 4: Comparing Models

Compare the three service models to understand their unique characteristics and differences. Focus on aspects such as the level of control, flexibility, management, and technical knowledge required for each.

### Step 5: Assess Needs

Assess the organizational and technical needs of the business. Determine which cloud service model aligns best with the current and future goals, technical expertise, budgetary constraints, and the desired level of control over the infrastructure.

### Step 6: Select Model

Based on the assessment, select the cloud service model that fits best. Take into consideration the scalability, cost, security, compliance, and specific application requirements that each model offers.

## General Notes

### Cost-Benefit Analysis

Perform a cost-benefit analysis for each service model as part of the 'Assess Needs' step to weigh the investment against the potential gains.

### Security Considerations

Consider the security implications of each model. IaaS offers more control over security, while SaaS and PaaS require trusting the service provider's security measures.

### Scalability

Pay special attention to scalability needs during the 'Assess Needs' step. IaaS and PaaS are typically more scalable options compared to SaaS, which depends on the provider's ability to scale services.