### Cloud Service Models

- The NIST define three Service Models of how cloud services can be offered:
  - laaS Infrastructure as a Service
  - PaaS Platform as a Service
  - SaaS Software as a Service
- Large cloud server providers offer multiple models

### Cloud Service Models

- The three models define where the customer and provider areas of responsibility are, and at what level the customer gains access.
- The three models build on top of one another.

## Data Center Stack

**Data** 

**Applications** 

**Operating System** 

**Hypervisor** 

Compute

**Storage** 

**Network** 

# On Premise



**Customer Manages** 



**Provider Manages** 

**Data** 

**Applications** 

**Operating System** 

**Hypervisor** 

Compute

**Storage** 

**Network** 

# Colo



Provider Manages

Data

**Applications** 

**Operating System** 

**Hypervisor** 

Compute

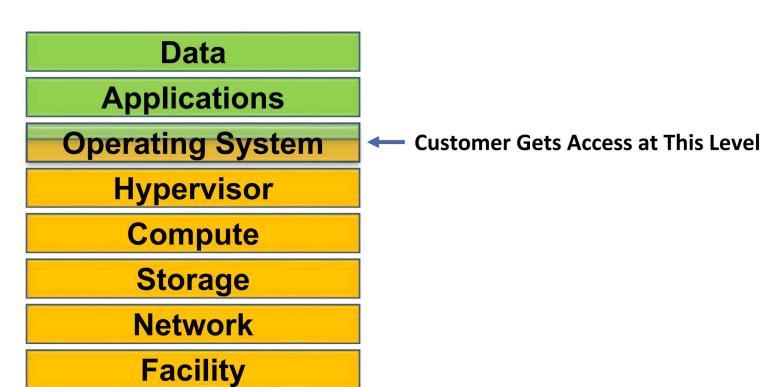
**Storage** 

**Network** 

### laaS Infrastructure as a Service



**Provider Manages** 



# PaaS Platform as a Service



**Customer Manages** 



**Provider Manages** 

Data

**Applications** 

**Operating System** 

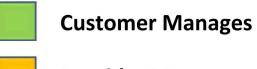
**Hypervisor** 

Compute

**Storage** 

Network

## PaaS Platform as a Service



**Provider Manages** 

Data **Applications Custom Environment** Customer Gets Access at This Level **Operating System Hypervisor** Compute **Storage** Network **Facility** 

# SaaS Software as a Service



Data **Applications** Customer Gets Access at This Level **Operating System Hypervisor** Compute **Storage** Network **Facility**