A FLAVORFUL FOUNDATION:

Demystifying the Cloud

Just like clouds in the sky, the digital cloud comes in many "flavors." It encompasses a vast range of technologies and services such as remote storage, data processing, and virtual infrastructure.

End-users are on pace to spend **$180 billion** in 2015 on the cloud. [1]

Who Knows?

Cloud computing makes it easier to implement technologies without knowing how they work. In one 2012 survey: [2]

3 in 10 respondents didn't know what "the cloud" was. [2]

Only 16% knew the correct answer [2]

Even still, **95%** used cloud technologies daily. [2]

A Cloud for All Seasons

Three important flavors are game changers in understanding how to approach the cloud:

SOFTWARE AS A SERVICE - SAAS

SAAS applications are designed for end-users and deployed online, like email, productivity or CRM (Customer Relationship Management) software. SAAS is [3]:

- On-demand and remotely available. [3]
- Centrally managed and maintained. [3]
- Delivered in a "one to many" model. [3]
- May be integrated via API (Application Programming Interfaces) [3]

Significant in SAAS:

First in CRM with over **2.5 million users.**[3,4]

Estimated **630 billion business users.**[3]

4 million small business users.[4]

Appropriately Soft

SAAS is suited for:

- Email and productivity.[3]
- Software to manage customer interactions.[3]
- High availability services.[3]
- Accounting and billing software.[3]

PLATFORM AS A SERVICE - PAAS

PAAS incorporates middleware - software used to facilitate deployment of applications. Used for rapid prototyping and low-maintenance development, PAAS:

- Is a foundation for web applications. [3]
- Consists of web-based UI creation tools.[3]
- Enables rapid deployment of apps and services.[3]
- Integrates with common web services, databases, and technologies.[3]

Popular PAAS Platforms:

Over 650 million data transactions per day. [3]

App engine has over **200,000 developers** [3]

Open source PAAS actively maintained by **2,100 developers.** [3]

Take a PAAS

Consider Platform As A Service if you:

- Value rapid deployment.[3]
- Work in teams.[3]
- Use proprietary data sources.[3]
- Require accessibility by non-developers.[3]

INFRASTRUCTURE AS A SERVICE - IAAS

Infrastructure As A Service provides computing resources like storage and server bandwidth on-demand. IAAS:

- Is scalable resources distributed as a service. [3]
- Is highly available through automation.[3]
- Uses a utility pricing model.[3]
- Sacrifices convenience of SAAS and PAAS for flexibility.[3]

METERED MICROPROCESSORS

IAAS products are operational expenses for tax purposes. Shifting IT from assets to expenditures is a major influence in IAAS adoption. [3,5]

IAAS by the numbers:

Owns 35% of the enterprise market share.[10]

5 times larger than its biggest competitor. [11]

14 minutes of downtime in all of 2014. [11]

Hard Case

When is IAAS the right choice?

- Unpredictable demand.[3]
- Avoid infrastructure spending.[3]
- Short term infrastructure.[3]
- When migrating into the cloud.[3]

Everyone Else is Doing It

Organizations use an average of **545 cloud-based services.** [3]

Cloud spending is growing at a rate of **30%.** [3]

According to a 2015 survey:

93% of enterprises polled use the cloud for business. [13]

55% of companies' non-cloud infrastructure was cloud API-friendly. [13]

82% of enterprises have a hybrid cloud strategy. [13]

7 in 10 enterprises were using IAAS. [14]

Most PAAS subscribers also use IAAS. [13]

UP:

41% [3] → **59%**

SAAS 2015 → 2018

By 2018, SAAS Cloud Workloads will hold 59% of the **growing** cloud marketplace.[3,6]

DOWN:

44% [15] → **28%** [15]

IAAS 2013 → 2018 (projection)

IAAS cloud workloads in 2013

Despite losing market share, the IAAS industry will nearly double in size by 2018. [15]

Making The Right Choice

- Calculate the net cost or benefit of any transition to the cloud .[16]
- Be mindful of security and risk analysis .[16]
- Vet mission critical service providers carefully .[16]
- Invest in services that complement your ability to support, or not support them internally .[16]

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