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Platform Related Materials

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Sandy Barsky

Some Key Concepts

- Long Form from NIST Definition:

  Platform as a Service(PaaS)

  The capability provided to the consumer is to deploy onto the cloud infrastructure consumer created or acquired applications created using programming languages, libraries, services,and tools supported by the provider. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application

- Short, somewhat reductive form:

  Platforms are where you develop and 'what you load your application or service onto'

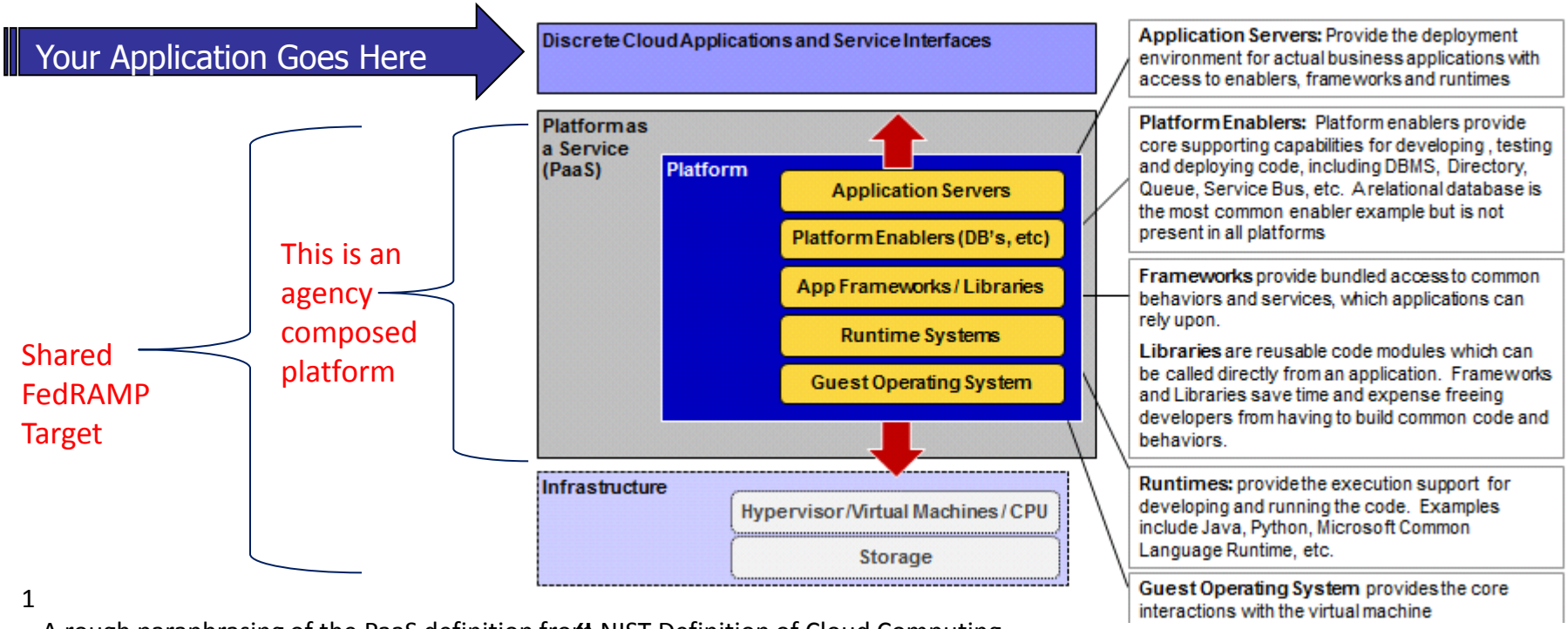
- "Platform Enablers" are the capabilities the **platform provides** that your **application needs** to run
- A good fit between application requirements and Platform Enablers means your application will 'just run' on the platform
- So … who determines the set of enablers and therefore 'fit'?
  - Vendor defines enablers available: Vendor Composed Platform
  - Agency or other group defines enablers available: Agency Composed Platform

Key Points

- IaaS alone is not enough for the savings we need to achieve
- FedRAMP allows for the leverage of platforms, in construction, maintenance, and A&A
  - To achieve savings in reuse, certification and time to market
- Additional PaaS savings are achieved in license consolidation, reduced maintenance and enterprise process improvement

Describing a Cloud Platform

- Platforms are 'what you load your application or service on',[1]
- A platform provides a standard operating system and all the 'enablers' your application needs to run
- GeoCloud/Cloud Agency Platform, for example, is "Agency Composed" Cloud Platform
- ElasticBeanstalk, Google Apps, Force.Com are "Vendor Composed Platforms"



1 A rough paraphrasing of the PaaS definition from NIST Definition of Cloud Computing, p2-3, Paraphrased

Why Use Cloud Platform (PaaS)?

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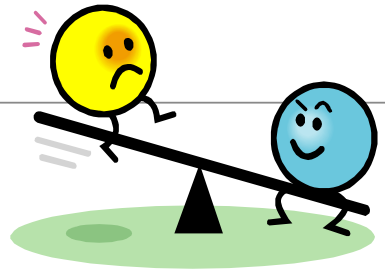
Without a Cloud Platform



For EACH APP:

- Select or build your cloud OS
- Add all the platform enablers and tools
- Install your application
- Assess and authorize the whole stack
- Repeat selectively for patches

Once For PLATFORM:
Update, Assess, Authorize, Maintain

For EACH APP:

- Install your application
- Assess and authorize your application
- Test and accept/reject updates

Using a Cloud Platform

Cost Savings + Time Savings + Consistent Security

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Overview: Platform Goals and Roles

- Shared platform(s) providing consumers with ability to directly deploy and operate per NIST model
- Two Principal Roles I
  - Platform maintainers act as platform providers
  - Platform consumers act as platform users
- Maintainers responsible for platform and its updates
- Consumers responsible for deployment and applications
- Joint responsibility for platform enhancements – more direct in agency composed than vendor composed