

CLOUD SECURITY AND IT'S EFFECT ON APPLICATION SECURITY

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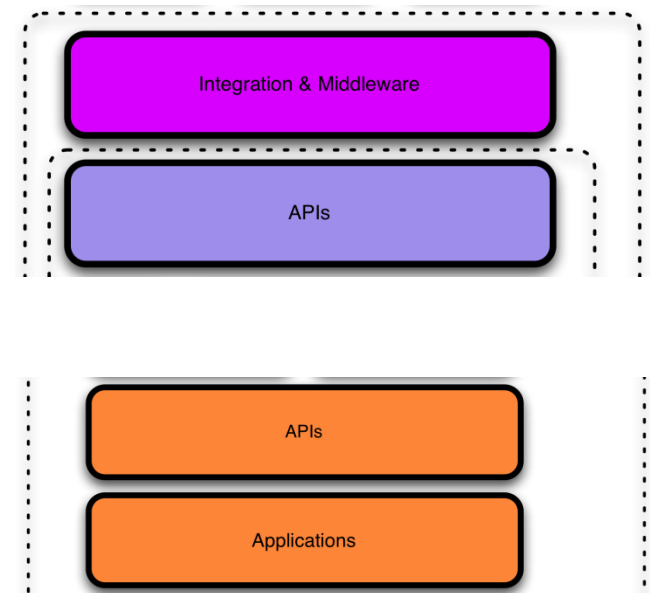
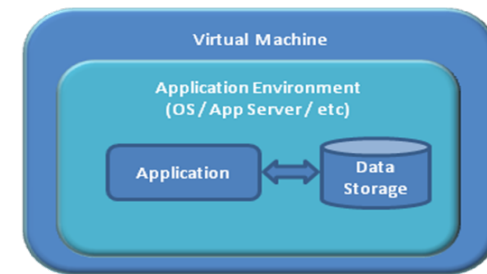
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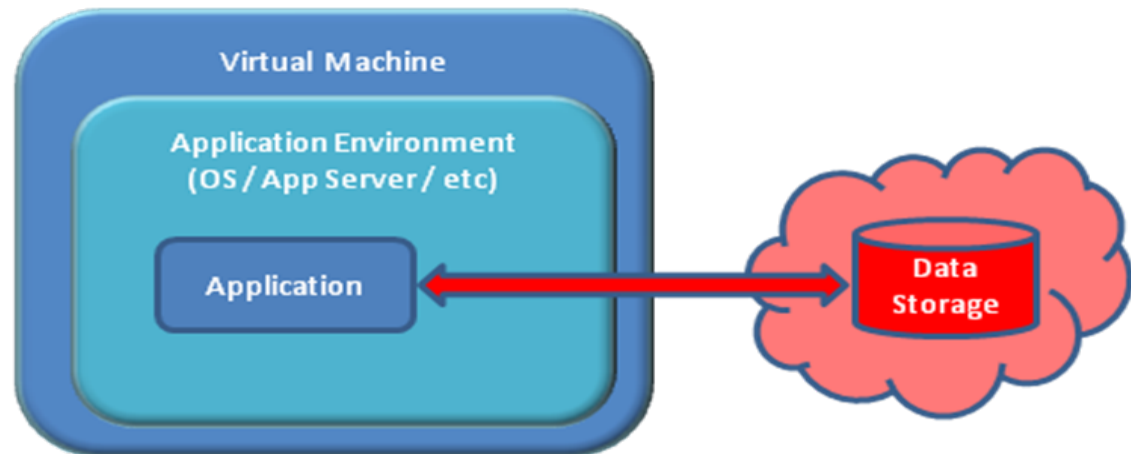
Cloud taxonomies

- Infrastructure as a Service (IaaS)
 - set of virtualized components that can be used to construct and run an application.
- Platform as a Service (PaaS)
 - runtime environment for the application and an integrated application stack
- Software as a Service (SaaS)
 - Provides a fully functional application and potentially an API



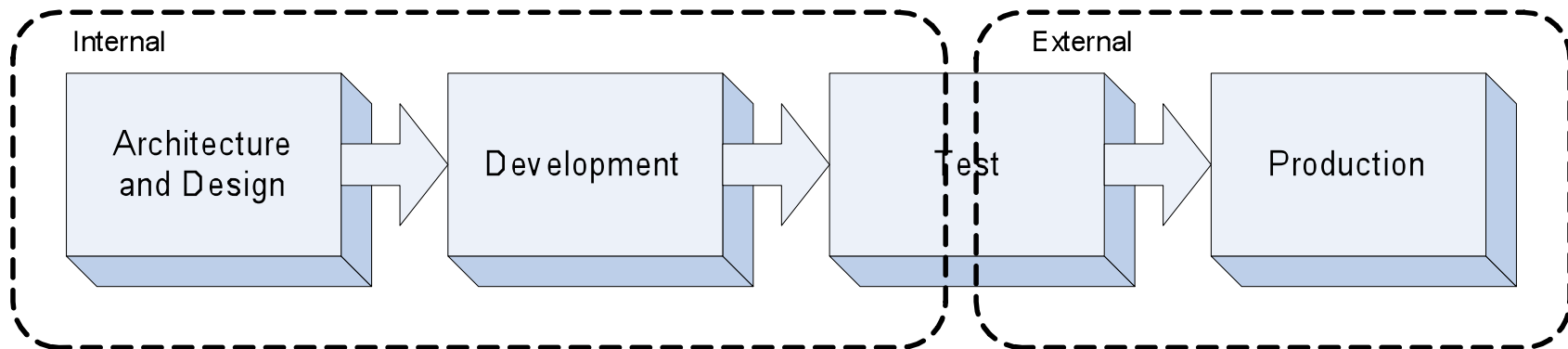
Infrastructure as a Service (IaaS)

- Trusting the Virtual Machine Image
- Hardening Hosts
- Securing Inter-host Communication
- Managing Application Keys



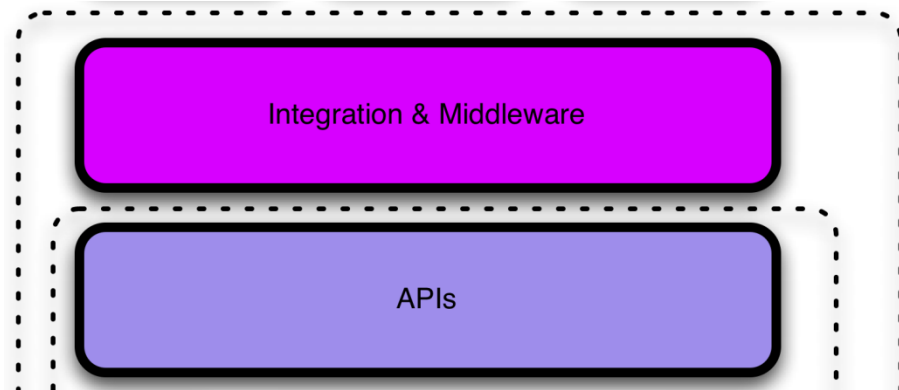
IaaS Platform Impact on the Software Development Lifecycle

- All of the security issues related to application security still apply when applications move to a cloud platform
- Development life cycle crosses a trust boundary from an internal or “trusted” environment into the cloud.



PaaS Impact on Application Security Architecture

- PaaS provides a suite of building blocks to construct a custom application.
- PaaS platforms also provide the programming environment to access and utilize additional application building blocks.
- Issues related to a multi-tenant environment.



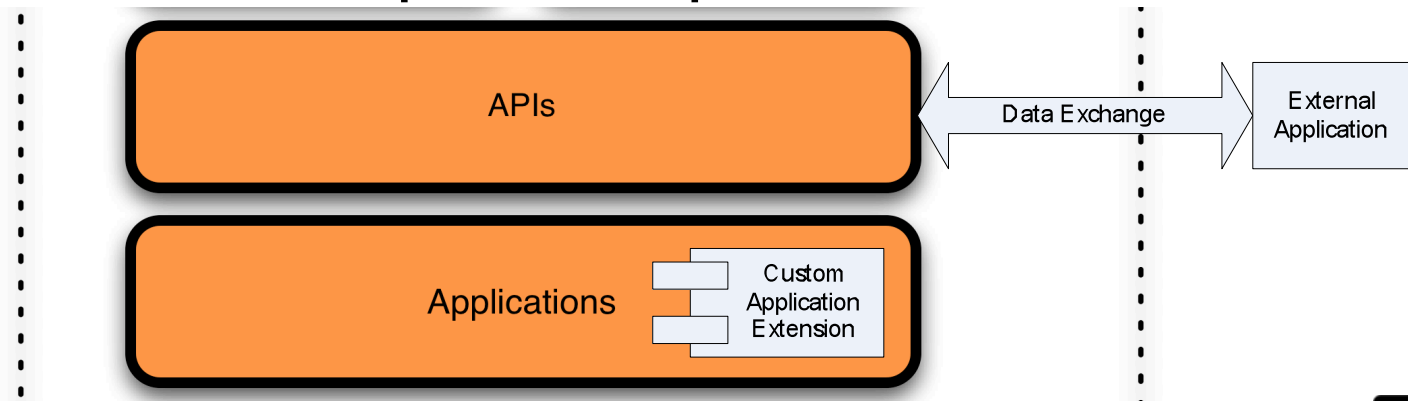
PaaS Impact on Application Security Architecture

- everything from IaaS plus..
 - PaaS programming environment
 - Managing Application Keys
 - Additional Requirements for Handling of Sensitive Information
- Software Development Lifecycle
 - Lack of secure design and coding patterns, technology specific application security standards and application security assurance tools for software built on this platform.
 - Enterprise looking to extend its current secure development lifecycle will have to develop this knowledge and tools.

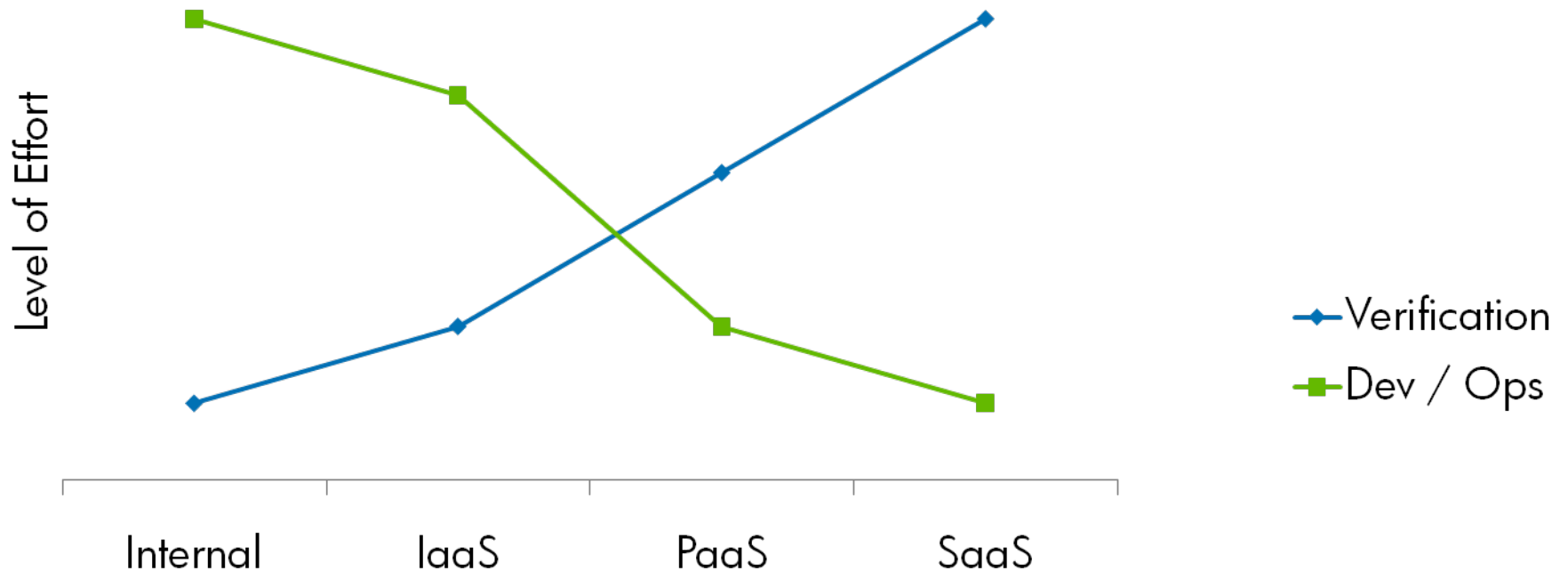


Software as a Service (SaaS) Delivery Model Application Security

- The SaaS application's capabilities provide end-user functions as well as become part of the programming platform.
- The application's capabilities can be extended by adding custom code extensions.
- External applications can exchange data through the APIs the SaaS platform provides.



Trust....but verify



Russian proverb "*doveryai, no proveryai*"

Ronald Reagan: "Trust but verify"

Mikhail Gorbachev : "You repeat that at every meeting,"

Reagan "I like it."



Areas of concern (v2 Guidance)

- Compliance
- Economics
- Metrics
- Tools & Services
- Vulnerabilities
- Software Development Life Cycle (SDLC)
- Application Security Architecture
- Identity Management