Security is better in the cloud

IBM SECURITY

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2019-10-23

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Cloud definitions

Essential Characteristics

- On-demand self-service
- Broad network access
- Resource pooling
- Rapid elasticity
- Measured service

Service Model

- Software as a Service (**SaaS**)
- Platform as a Service (**PaaS**)
- Infrastructure as a Service (**IaaS**)

Deployment Model

- Private cloud
- Community cloud
- Public cloud
- Hybrid cloud

Service Model

- **IaaS -** Provides a foundation for a scalable virtualized environment in the suppliers datacenter containing e g servers, storage and backup. Examples: Microsoft Azure, AWS Elastic Compute Cloud, Google Compute Engine.
- **PaaS** - Provides for a platform containing also tools e g databases and development tools to deploy/develop own applications on. Examples: Microsoft Azure, AWS, Google Cloud.
- **SaaS** - Provides for a full service within a wide range of applications to users in a subscription based model. Examples: ServiceNow, Salesforce, Office 365, Workday.

Shared Responsibility Model

On-Premises	IaaS	PaaS	SaaS
User Access/Identity	User Access/Identity	User Access/Identity	User Access/Identity
Data	Data	Data	Data
Application	Application	Application	Application
Guest OS	Guest OS	Guest OS	Guest OS
Virtualization	Virtualization	Virtualization	Virtualization
Network	Network	Network	Network
Infrastructure	Infrastructure	Infrastructure	Infrastructure
Physical	Physical	Physical	Physical

<your company> cloud(s)

	Public cloud	Private cloud
Infrastructure-as-a-service		**<VM-Ware platform>**
Platform-as-a-service		**<VM-Ware platform>**
Software-as-a-service		

Microsoft Azure

aws

Google Cloud Platform

IBM Cloud

Office 365

salesforce

servicenow
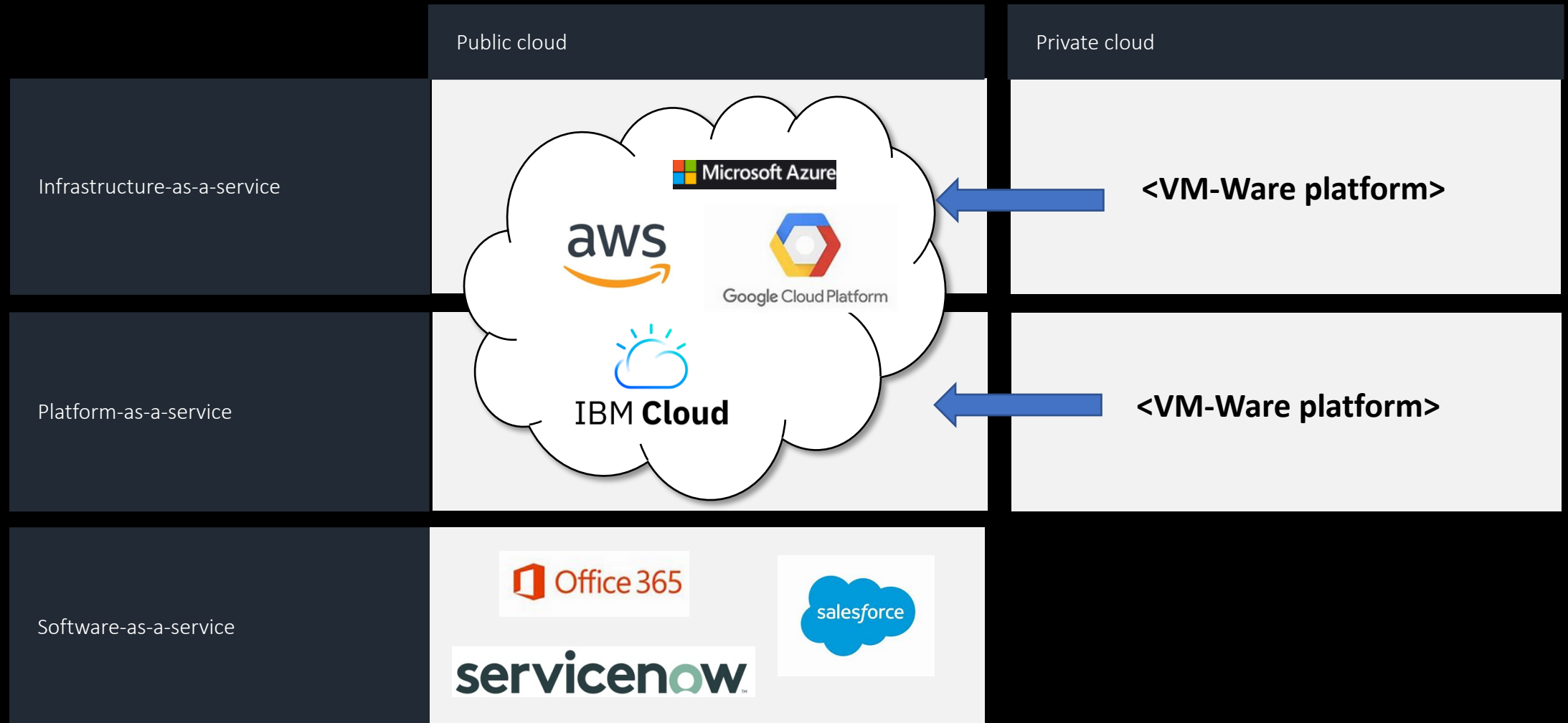
Cloud effort needed

On-Premises	IaaS/PaaS	SaaS
Identity and Access Mgmt	Identity and Access Mgmt	Identity and Access Mgmt
Data	Data	Data
3d party Application	Build your own Application	Application Configuration
Patch Management full stack	Patch Mgmt almost full stack	"apply update"
Virtual Machine Management	Container Management	<N/A>
Network Segmentation	Micro Segmentation	Internet
Hardware Setup	<N/A>	<N/A>
Governance	Cloud Governance	SaaS Cloud Governance

Understanding the Cloud Security market

All customers will MOVE TO THE CLOUD

- 8,000,000 cloud apps built by the top 20,000[1]
- 60% of enterprise workloads will be cloud-based by 2020 [2]
- Lloyds going from 100% on-prem to 95% on-cloud

The Enterprise is MULTI CLOUD

- More than two-thirds of enterprises will use multiple clouds [3]
- Of those, more than 40% plan to move workloads between clouds [3]

Security is the key BARRIER to CLOUD ADOPTION

- 55% say security the main barrier in to cloud [5]
- Enterprises spend a quarter of their cloud budget on security [2]

Cloud Security talent is the HARDEST TO FIND

- 33% of enterprises say its their largest skills deficiency [4]

Thank you