PAAS IAAS DIFFERENCES

Difference topic	PAAS	IAAS
What is offered	Users get a work environment on-demand. A platform made of software, hardware, and operating systems. It is a platform where new codes can be added for the development of the end product on a use & pay basis.	Users get a work environment on-demand. A platform made of software, hardware, and operating systems. It is a platform where new codes can be added for the development of the end product on a use & pay basis.
Importance	The middle layer of cloud computing that enables development of applications.	Basic layer of cloud computing useful for administrators.
Technicalities Involved	Medium technical know-how necessary for further development of the service takes place in this layer. Proper knowledge of coding and application development is essential to eliminate any possible bugs.	Deep technical knowledge required. IaaS is the basic layer and if not built strongly, it will not be able to support the further development of the service.
Deals with	Java Runtimes, databases like Oracle and Web Servers.	Servers, Load Balancers, Network arrays, virtual machines, storage disks.
Popularity Graph	Medium-skilled developers use the platform and the favorable work environment to develop their own applications. Developers don't need to worry about traffic loads or server management.	Used mostly by highly experienced and skilled developers. Custom configuration according to their field of research.
Examples	Apprenda, Google App engine, Heroku	Cisco Metapod, Amazon Web Services, Microsoft Azure
Advantages	• Still cost effective in comparison to IaaS, as you are still essentially leasing the software platform not a resource. An example of PaaS would be IIS. • Unlike SaaS you can bring your own software to run on the	• Customers have full control over their VM and everything inside it; customers can choose to automate the provisioning or build their own VM. • A customer can run anything they want inside their VM.

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	platform therefore you have full control of software. • Full control over the users accessing the software and the processing of data (to a certain extent, due to little knowledge of underlying VM and insider threat). • Improved support for integration with other systems due to the above. • Minimal management of the VM, as this is still handled by the provider.	• Full control of processing inside VM. • Simplifies Integration with enterprise infrastructure • Potential the most secure Cloud service using a PuC due to greater control of VM. • The customer in essence can run and control its own virtual infrastructure without the overheads of cost and maintenance from running its own hardware.
Disadvantages	• No Control over the VM or processing of data, this is a big security risk as you don't know what's happening with your data. • Possibly no control over platform depending on Cloud provider. • Platform is most likely a shared platform, for example there could be other customers running different websites on the same IIS platform. • Management task can become time consuming and tedious as you are responsible for updates and upgrades of application. • Not as cost effective as SaaS and not as much control over VM as IaaS.	• Most expensive, since the customer is now leasing a tangible resource, the provider can charge for every Cycle, bit of RAM or disk space used. • Customer responsible for backups • Unlike with SaaS or PaaS, customer is responsible for all aspects of VM Management. • Still no control over which server or the physical (geographical) location of the VM.
Suitability	• When multiple developers are working on the development or when external parties are involved in the development process, PaaS is a great option to bring in the speed and flexibility to the development process • For organizations following Agile Methodology for software development, PaaSeases the difficulties associated with rapid development and iteration of application	• Ideal for organizations which need complete control over their high performing applications • Also suitable for startups and small companies which do not wish to spend time and energy in procuring hardware and software. • Suitable for growing organizations which are not yet sure about the application and expect it to evolve over a period and hence do not want to

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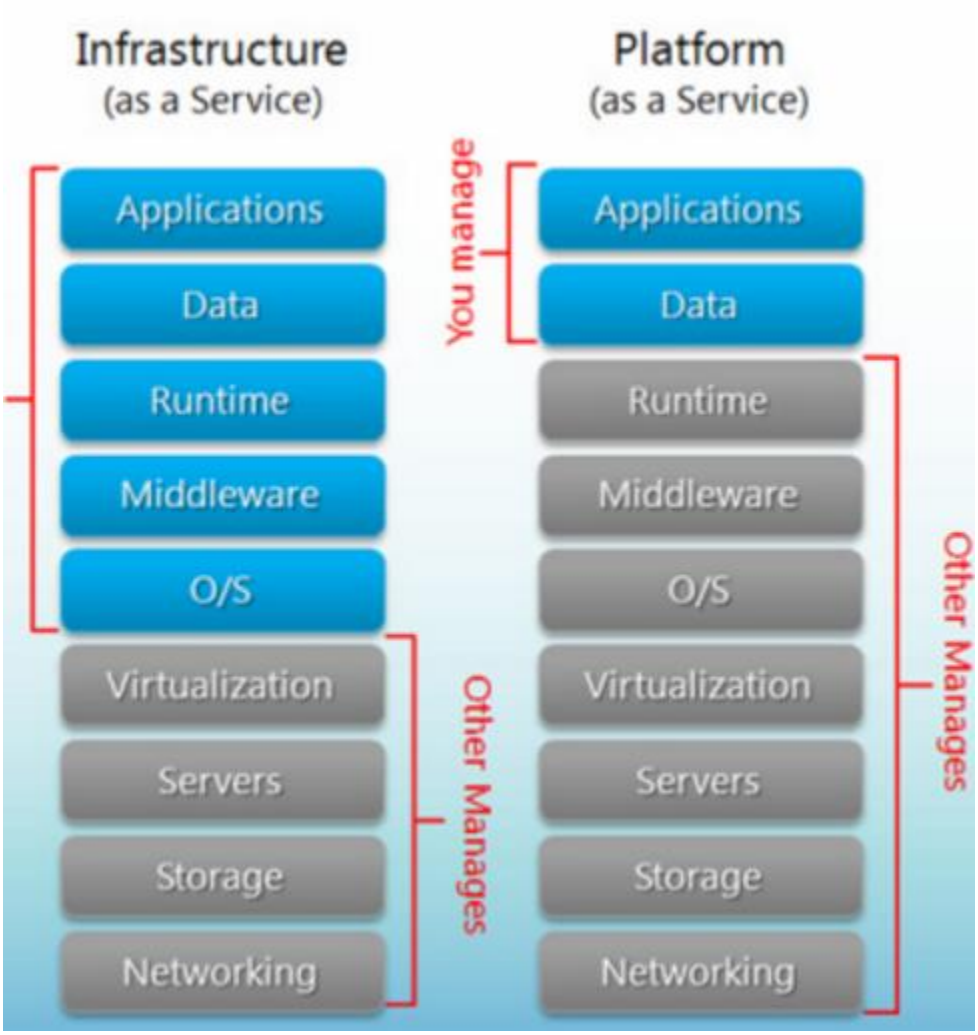
	• When you wish to spread your Capital Investment – by providing the underlying solid infrastructure, PaaS model reduces the organization's overhead costs • Large organizations who want to customize applications Note: Do you know ***the age of Paas***? Let's have a look	commit to hardware/ software resources • Suitable for applications which see volatile demands – where scaling up or down is critical based on traffic spikes or valleys



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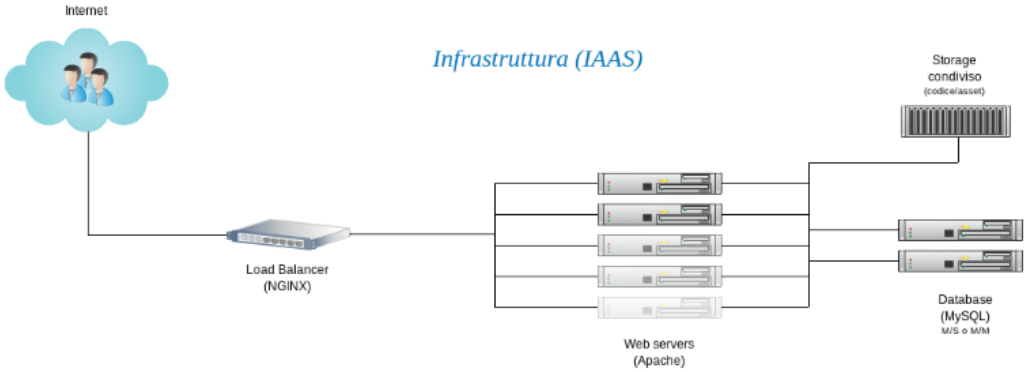
Infrastructure as a Service (IaaS)

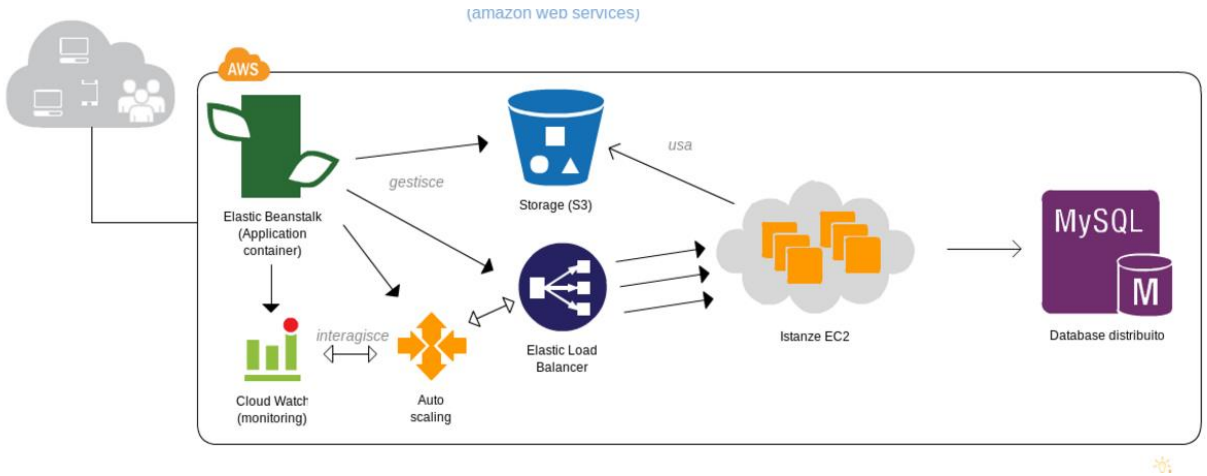
Infrastructure as a Service **IaaS** is the basic layer of cloud computing model. The 'Service' company provides the computer resources in the form of hardware, networking, and storage services.

In addition to hardware resources the services company may additionally provide operating systems too. So instead of a business having to buy hardware and install resources in their own 'data center', they rent the required resources instead as and when they need it.



PAAS:

Next on the list is Platform as a Service (PaaS). In this model, you don't want to think about the server or its internals, you want to point to a virtual machine, tell your code or container to go live there, and let your application take over from there. This is where Engine Yard fits in the scheme of things, along with Heroku, Openshift and others. In addition, most of the larger IaaS providers also have offerings in this area.



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