Amazon cloud Services- It is a platform that offers flexible, reliable, scalable, easy to use and cost effective cloud computing solutions.
The platform is developed with a combination of infrastructure as a service (IAAS), PAAS, and SAAS.

~~Amazon~~ AWS offers a wide range of different business purpose global cloud based products. The products include storage, databases, analytics, networking, mobile, development tools, enterprise applications, with a pay as you go pricing model.

Compute Migration Security
Storage Networking Messaging
Database Management Tools Analytics.

EC2 (Elastic compute cloud) - EC2 is a virtual machine in a cloud on which you have OS level control. You can run this cloud server whenever you want.

→ Light Sail - This cloud computing tool automatically deploys and manages the computer, storage and networking capabilities required to run your applications.

→ Elastic Beanstalk - The tool offers automated deployment and provisioning of resources like a highly scalable production website.

→ EKS C Elastic Container service for kubernetes - The tool allows you to kubernetes on Amazon Cloud environment without installation.

→ AWS lamda - The AWS service allows you to run functions in the cloud. The tool is a big cost saver for you as you to pay only when your functions execute.

Migration.

→ Database Migration Service
→ server Migration Service
→ Snowball → It is a small application which allows you to transfer terabytes of data inside and outside of AWS environment.

Storage →

Amazon Glacier
Amazon Elastic Block store
Amazon storage Gateway.

Security Services-

→ Identity and Access Management

→ Inspector → It is an agent that you can install on your virtual machines, which reports any security vulnerabilities.

→ Web Application firewall

→ Cloud Directory

→ Key Management Service

→ Shield → It is a managed DDOS protection service.

→ Macie → It offers a data visibility security service which helps classify and protect your sensitive critical content.

→ Guard Duty → It offers threat detection to protect your AWS accounts and workloads.

Database services-

→ Amazon RDS

→ Amazon Dynamo DB - NoSQL database service.

→ Amazon Elastic Cache

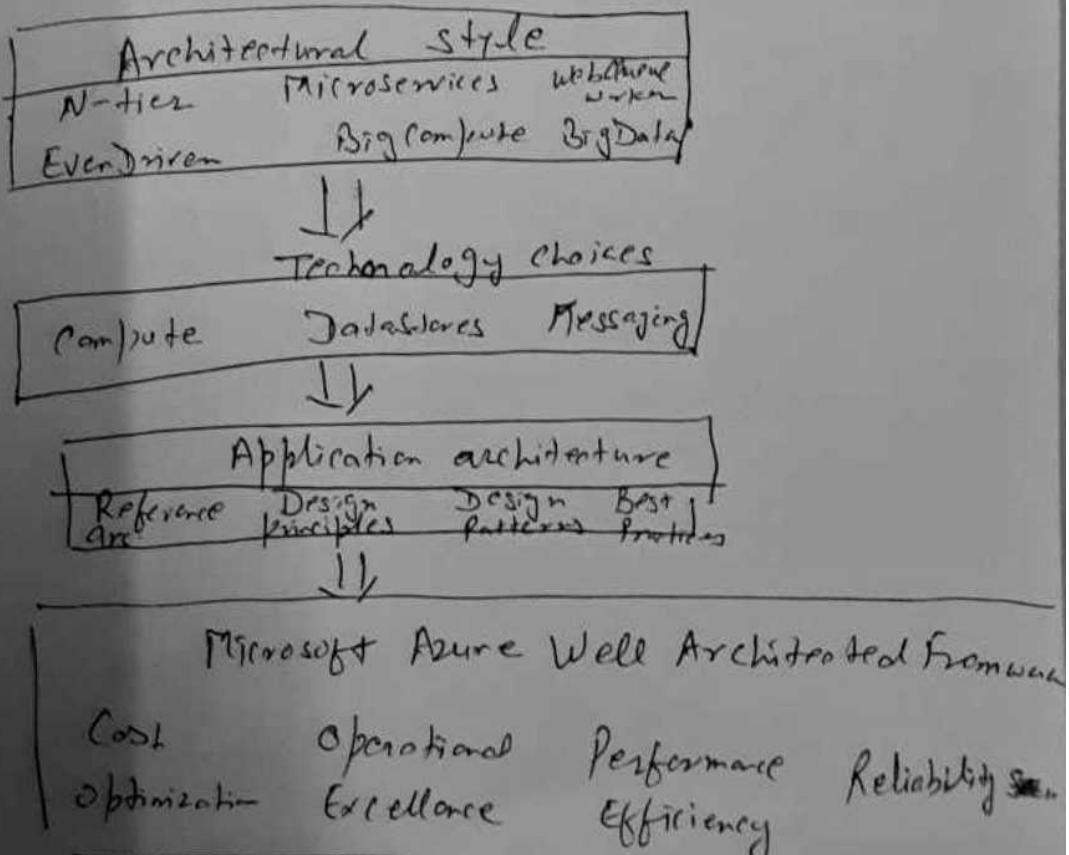
→ Neptune → Scalable Graph database service.

→ Amazon Red Shift.

Microsoft Azure. It is a public cloud services platform where users could build, test, deploy and manage their applications using microsoft cloud based data centers. Through Azure, microsoft offers a host of services on different domains such as Compute, Database, Content Delivery and networking. It provides IAAS, PAAS, SAAS.

Ex. of Azure Solutions-

- App Development
- App Hosting
- Software Testing
- Virtual Machine Creation
- Virtual Hard Drives
- Integration and Synchronization
- Business intelligence.

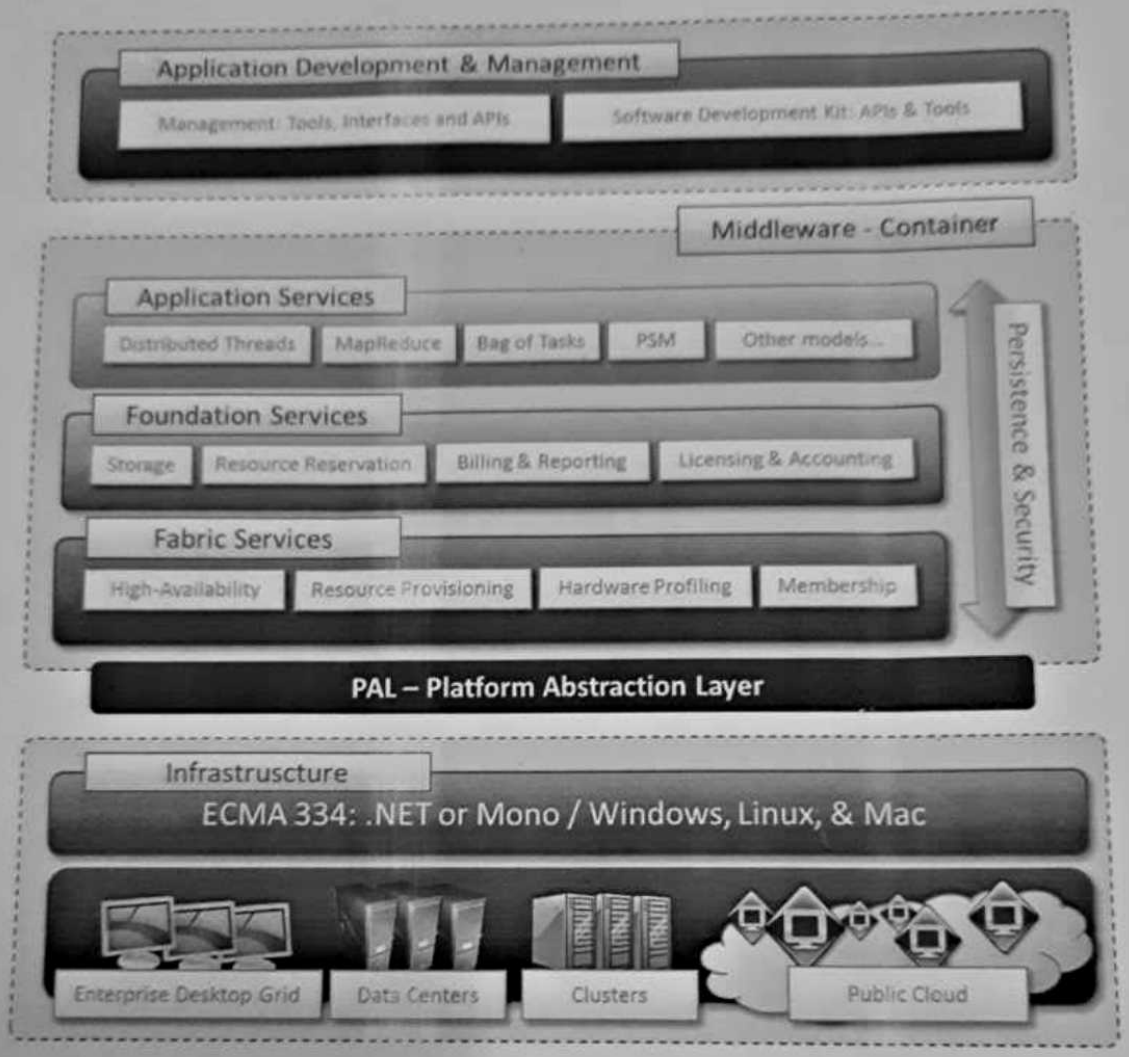


Aneka is a platform and a framework for developing distributed applications on the Cloud. It harnesses the spare CPU cycles of a heterogeneous network of desktop PCs and servers or datacenters on demand. Aneka provides developers with a rich set of APIs for transparently exploiting such resources and expressing the business logic of applications by using the preferred programming abstractions. System administrators can leverage on a collection of tools to monitor and control the deployed infrastructure. This can be a public cloud available to anyone through the Internet, or a private cloud constituted by a set of nodes with restricted access.

The Aneka based computing cloud is a collection of physical and virtualized resources connected through a network, which are either the Internet or a private intranet. Each of these resources hosts an instance of the Aneka Container representing the runtime environment where the distributed applications are executed. The container provides the basic management features of the single node and leverages all the other operations on the services that it is hosting. The services are broken up into fabric, foundation, and execution services. Fabric services directly interact with the node through the Platform Abstraction Layer (PAL) and perform hardware profiling and dynamic resource provisioning. Foundation services identify the core system of the Aneka middleware, providing a set of basic features to enable Aneka containers to perform specialized and specific sets of tasks. Execution services directly deal with the scheduling and execution of applications in the Cloud.

One of the key features of Aneka is the ability of providing different ways for expressing distributed applications by offering different programming models; execution services are mostly concerned with providing the middleware with an implementation for these models. Additional services such as persistence and security are transversal to the entire stack of services that are hosted by the Container. At the application level, a set of different components and tools are provided to: 1) simplify the development of applications (SDK); 2) porting existing applications to the Cloud; and 3) monitoring and managing the Aneka Cloud.

A common deployment of Aneka is presented at the side. An Aneka based Cloud is constituted by a set of interconnected resources that are dynamically modified according to the user needs by using resource virtualization or by harnessing the spare CPU cycles of desktop machines. If the deployment identifies a private Cloud all the resources are in house, for example within the enterprise. This deployment is extended by adding publicly available resources on demand or by interacting with other Aneka public clouds providing computing resources connected over the Internet.


Application Development & Management
Management: Tools, Interfaces and APIs
Software Development Kit: APIs & Tools
Middleware - Container
Application Services
Distributed Threads
MapReduce
Bag of Tasks
PSM
Other models...
Foundation Services
Storage
Resource Reservation
Billing & Reporting
Licensing & Accounting
Fabric Services
High-Availability
Resource Provisioning
Hardware Profiling
Membership
Persistence & Security
PAL – Platform Abstraction Layer
Infrastruscture
ECMA 334: .NET or Mono / Windows, Linux, & Mac
Enterprise Desktop Grid
Data Centers
Clusters
Public Cloud