Amazon Cloud Platform

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Course - Cluster, Grid, Clouds
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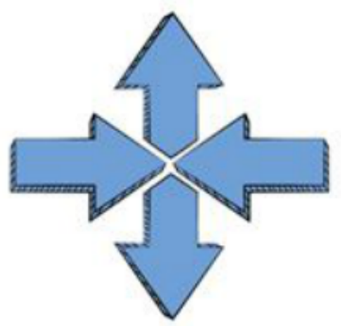
AWS Platform

Amazon Web Services and Cloud Computing

Compute

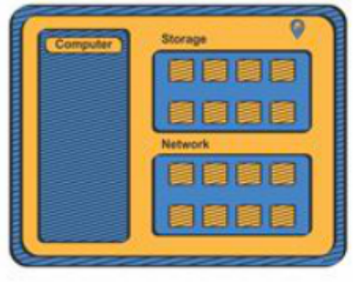
Storage



Network

Database

Application Services



Management

AWS vs On-premises infrastructure

AWS

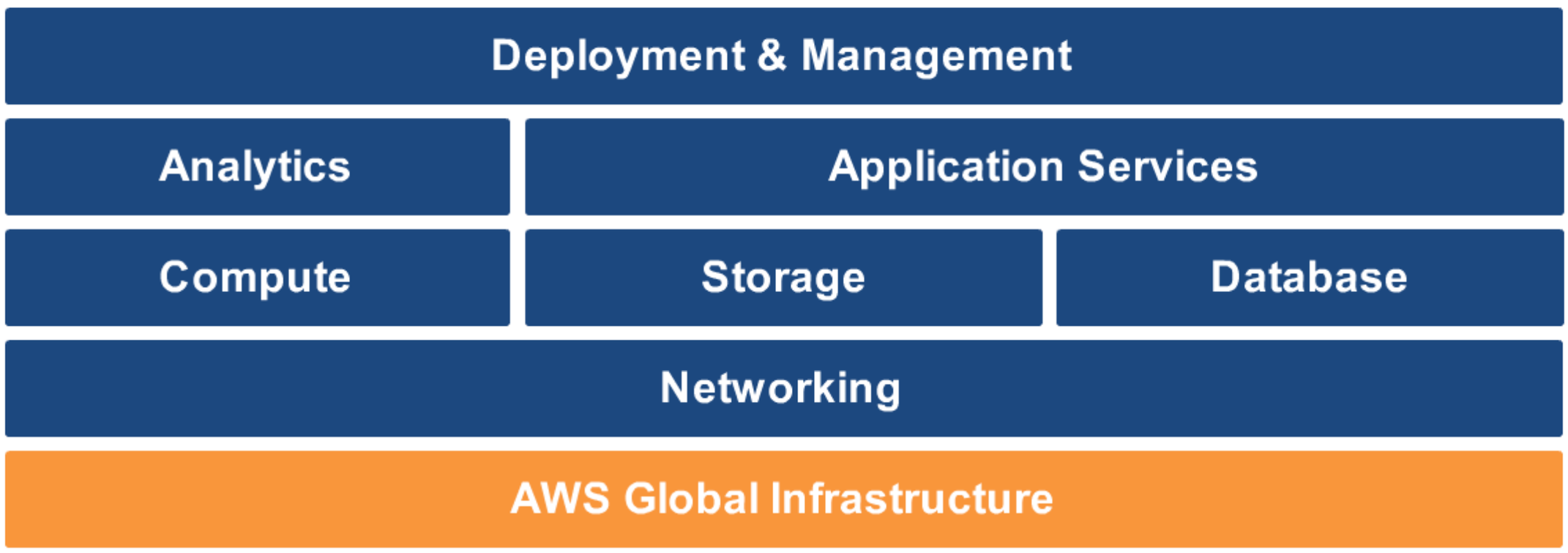
- Pay for resources even if you use them or not
- Regular upgrades of equipment
- Administration and maintenance
- Static Capacity
- Time taking to deploy
- Difficulties in distributing resources across geographies

On-premises

- Pay only for what is being used
- No investment required. Only monthly bills
- Innovation over maintenance
- Flexible Capacity
- Provisioning in minutes
- Can deploy around the globe in minutes

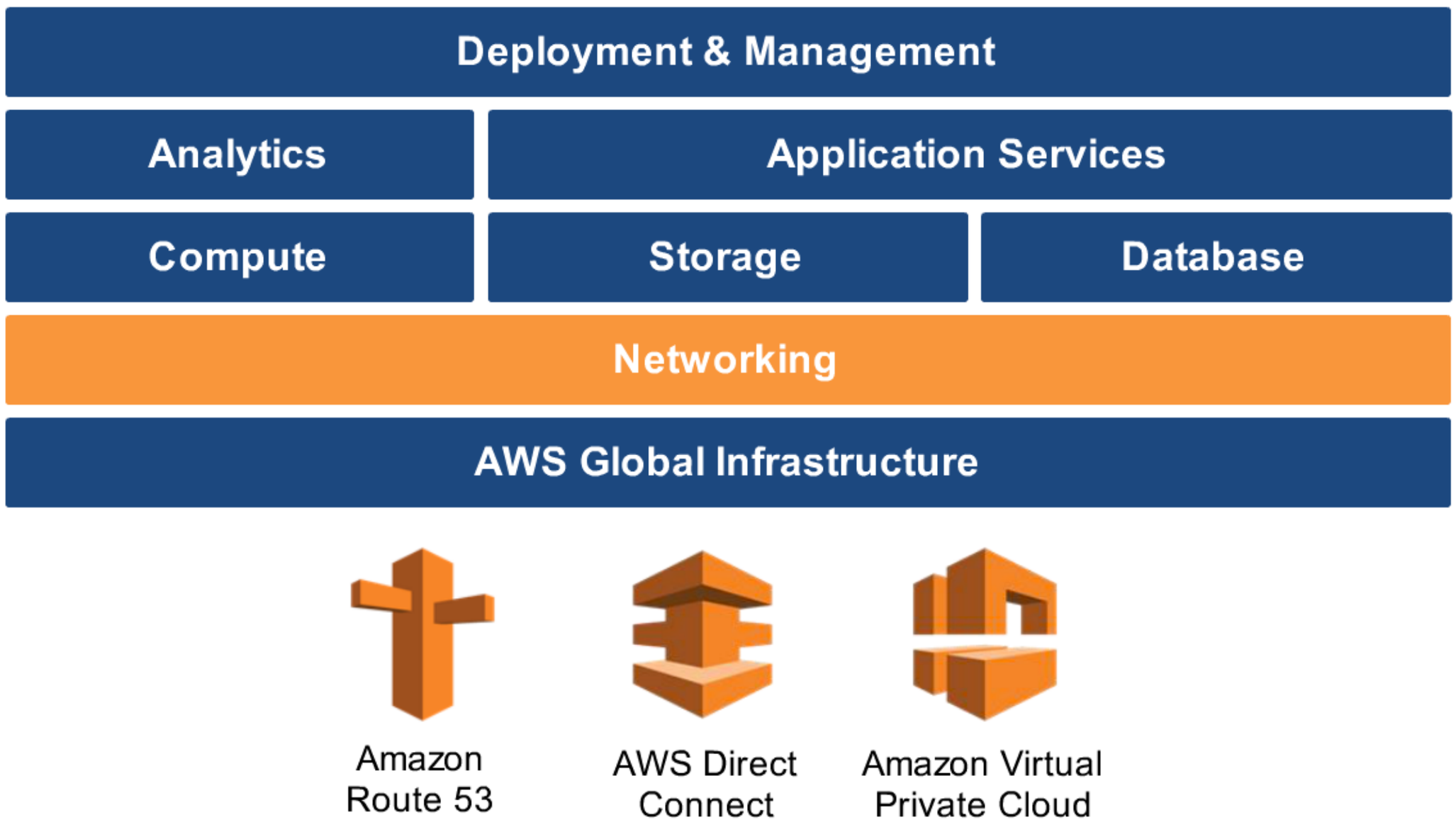
AWS can be used in many ways like from CLI, web page. Also, it has many API end-points which can be easily configured with your application making it easy to use

AWS Global Infrastructure



- It’s infrastructure is spread across 16 regions with multiple availability zones in each region and 52 edge locations

AWS Networking



AWS Compute

Deployment & Management

Analytics | Application Services

Compute | Storage | Database

Networking

AWS Global Infrastructure

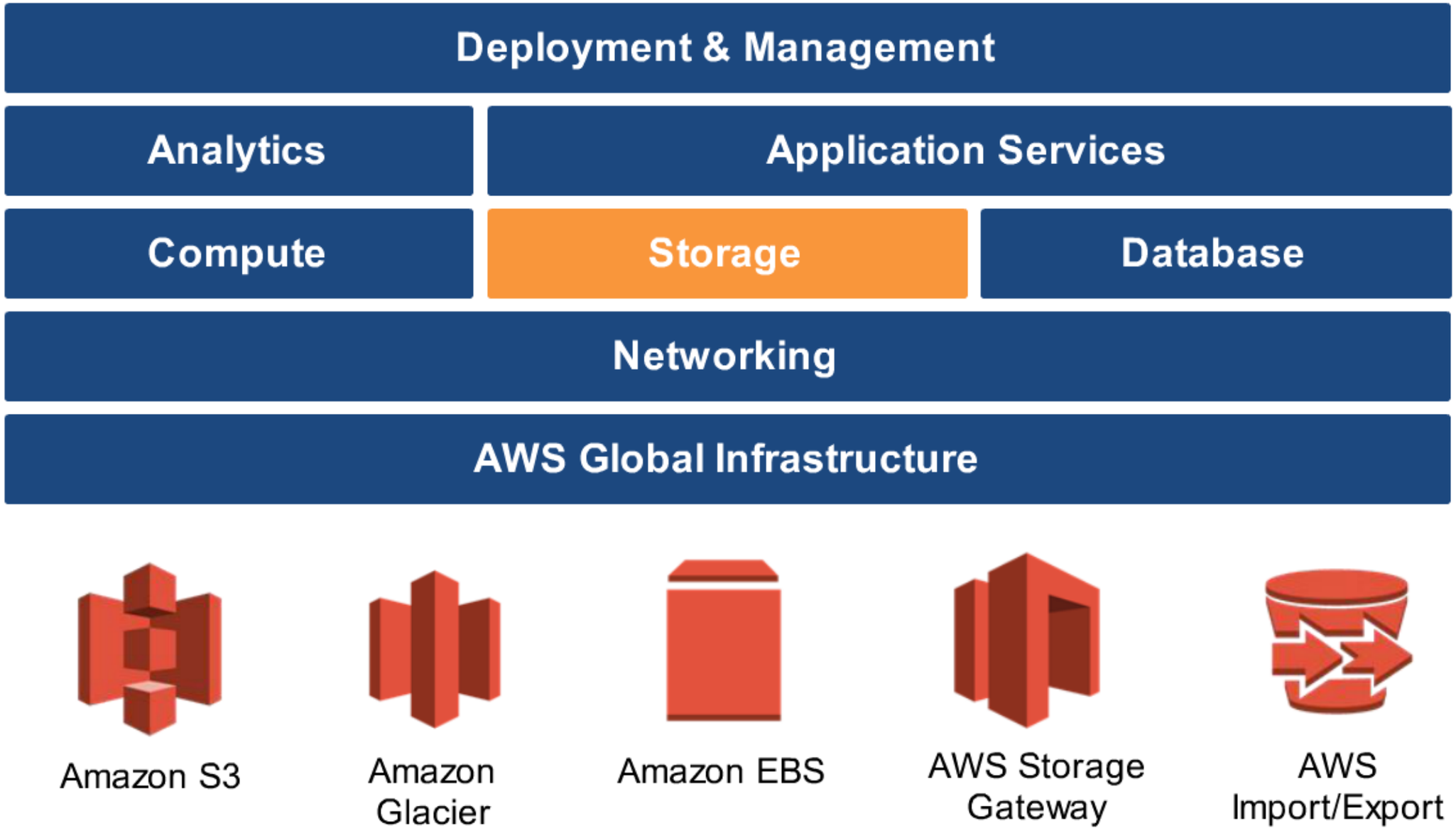
Amazon EC2

Auto Scaling

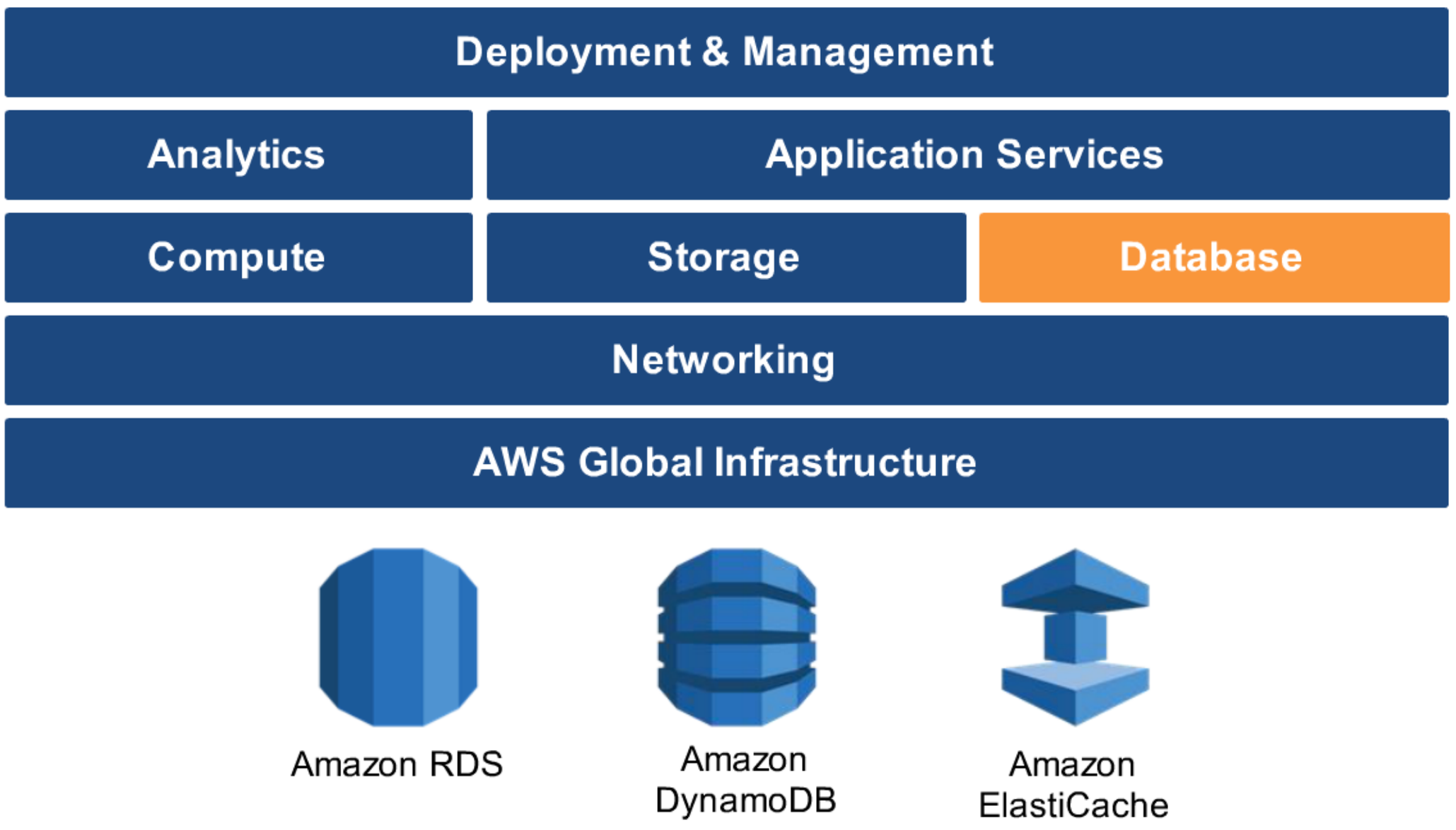
Elastic Load Balancing

Amazon Workspaces

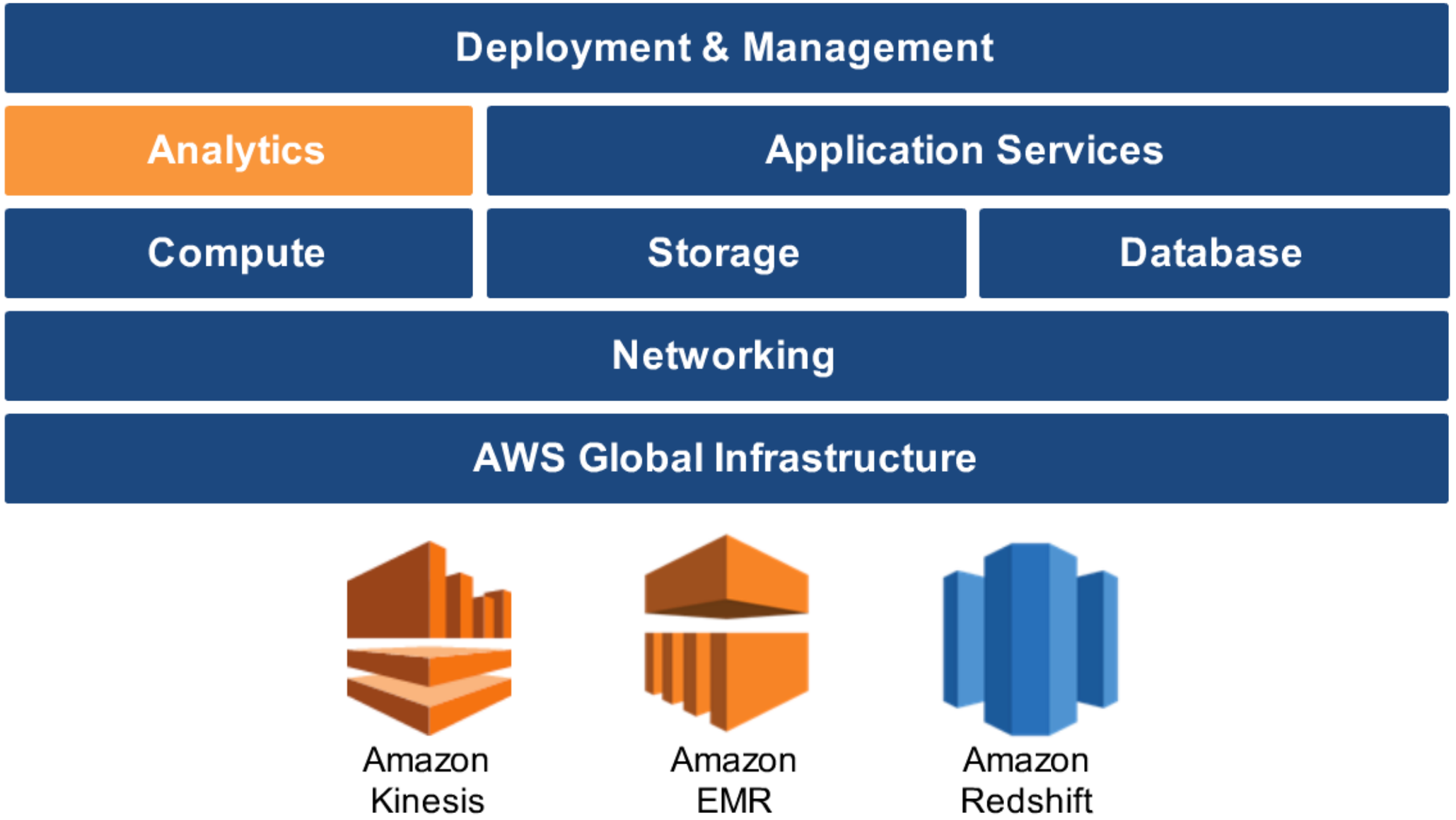
AWS Storage


Deployment & Management
Analytics
Application Services
Compute
Storage
Database
Networking
AWS Global Infrastructure
Amazon S3
Amazon Glacier
Amazon EBS
AWS Storage Gateway
AWS Import/Export

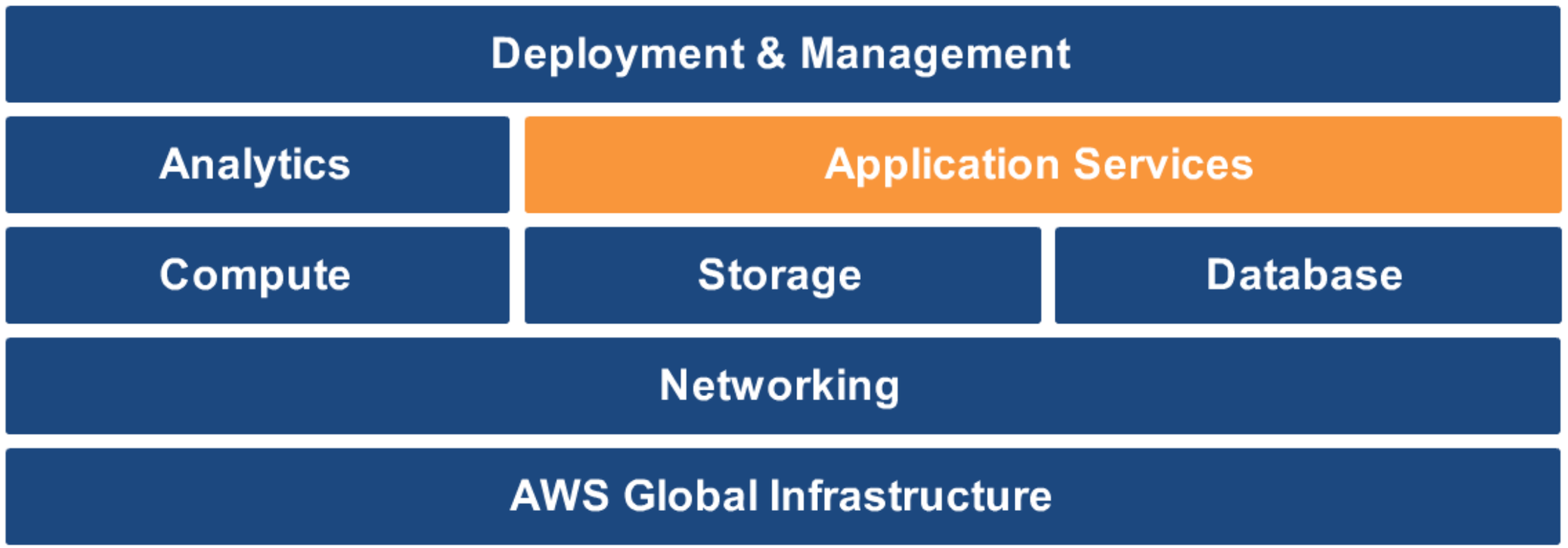
AWS Database



AWS Analytics



AWS Application Services



Amazon CloudSearch

Amazon SWF

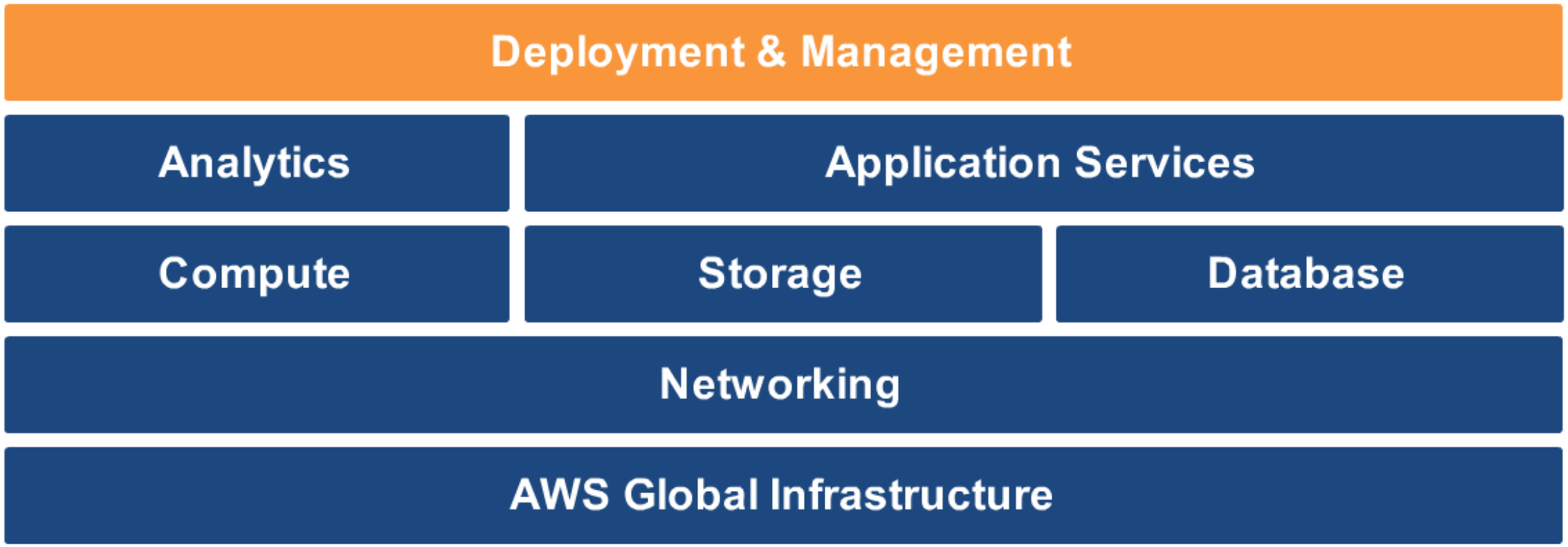
Amazon SQS

Amazon SNS

Amazon SES

Amazon Elastic Transcoder

AWS Deployment & Management




AWS Elastic Beanstalk


Amazon CloudSearch


AWS Data Pipeline


AWS IAM


AWS CloudFormation


AWS OpsWorks


AWS CloudTrail

Why should or shouldn’t I use AWS?

Why yes?

- Reduce Capital Expenditure
  - Low investment on Data Centers, Servers, Real estate etc.
- Benefits from economies of scale
- Scale up or down quickly as per usage
- Increase speed of deployment
- Stop spending money on running and maintaining Data Centers
- Easy global deployment

Why not?

- Minimum knowledge on cloud is required
- Should understand different features
- Resources should be used properly to keep billing under control

Pricing

- AWS pricing structure is based on many factors ranging from region selected to the number of hours used. Some factors that affect the price are - region, memory, storage, CPU, OS, time of use, add-ons etc
- Sample Pricing -

Linux | RHEL | SLES | Windows | Windows with SQL Standard | Windows with SQL Web

Windows with SQL Enterprise | Linux with SQL Standard | Linux with SQL Web | Linux with SQL Enterprise

Region: Asia Pacific (Mumbai)

	vCPU	ECU	Memory (GiB)	Instance Storage (GB)	Linux/UNIX Usage
General Purpose - Current Generation					
t2.nano	1	Variable	0.5	EBS Only	$0.0062 per Hour
t2.micro	1	Variable	1	EBS Only	$0.0124 per Hour
t2.small	1	Variable	2	EBS Only	$0.0248 per Hour
t2.medium	2	Variable	4	EBS Only	$0.0496 per Hour
t2.large	2	Variable	8	EBS Only	$0.0992 per Hour
t2.xlarge	4	Variable	16	EBS Only	$0.1984 per Hour
t2.2xlarge	8	Variable	32	EBS Only	$0.3968 per Hour
m5.large	2	10	8	EBS Only	$0.101 per Hour

References

- http://docs.aws.amazon.com/general/latest/gr/rande.html
- http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/using-regions-availability-zones.html
- https://aws.amazon.com/about-aws/global-infrastructure/
- https://aws.amazon.com/ec2/
- https://aws.amazon.com/getting-started/

THANK YOU
TEŞEKKÜR
הדות
감사합니다
GRACIAS
ĎAKUJEM
DĚKUJI
DANKE
спасибо
ХВАЛА
TERIMA KASIH.
NGIYABONGA
KIITOS
ARIGATÔ
OBRIGADO
TAK
DHANYAVĀD
GRÀCIES
KÖSZÖNÖM
ευχαριστώ
MERCI
XIÈXIÈ
SHUKRAN
TACK
GRAZIE
KOP KHUN
HVALA