CLOUD SERVICES

S Thenmozhi

Department of Computer Applications

CLOUD SERVICES

Cloud Computing Essentials

S Thenmozhi
Department of Computer Applications

Cloud Service Models

Infrastructure as a Service (IaaS)

Virtual computing, Storage and Network resource that can be provisioned on demand

Platform as a Service (PaaS)

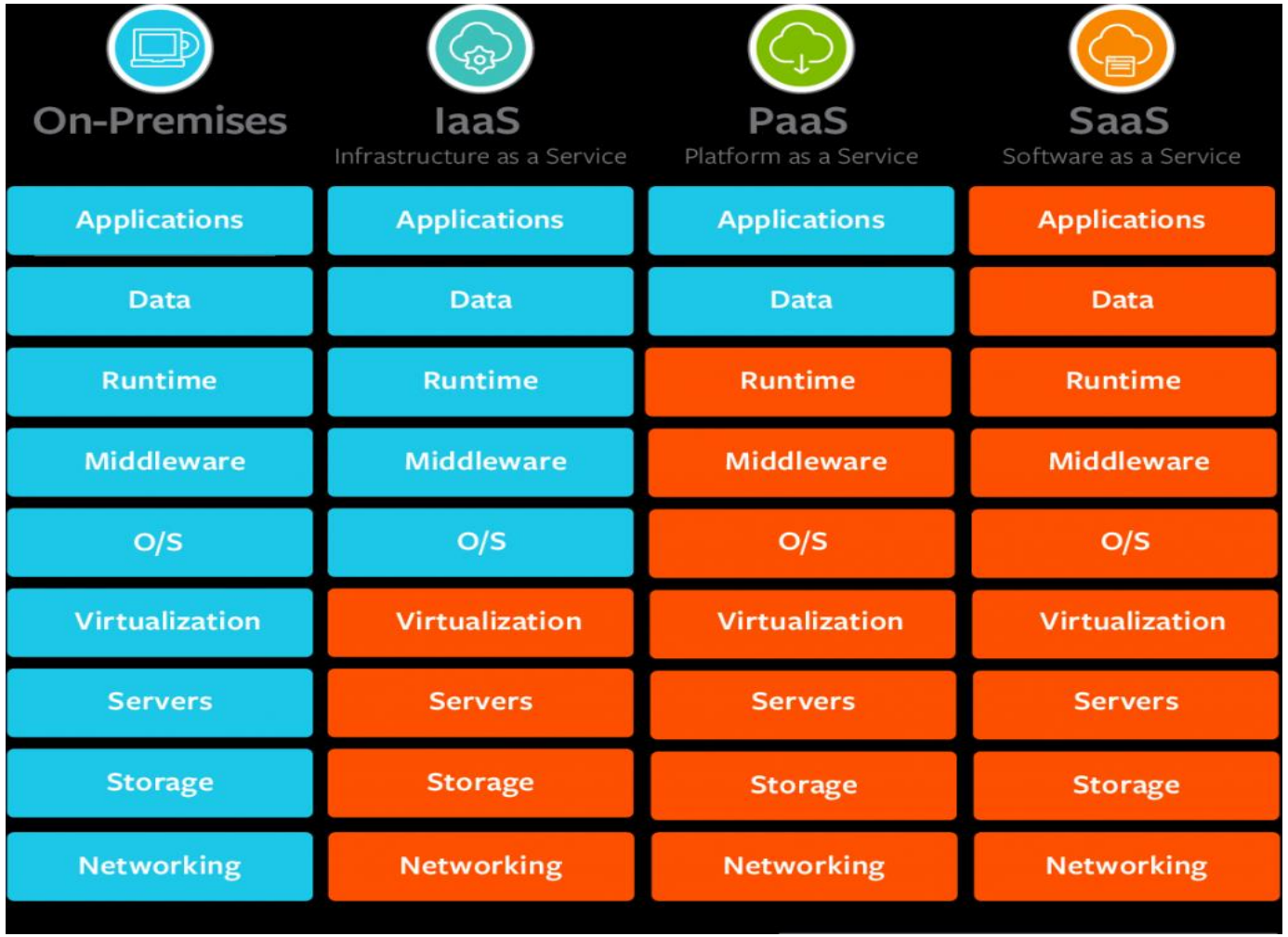
Application development frameworks, operating systems and deployment frameworks

Software as a Service (SaaS)

Applications, management and user interfaces provided over a network

CLOUD SERVICES

Cloud Service Models



Src: www.bmc.com/blogs/

CLOUD SERVICES

IaaS

Resource Provisioning – computing and storage resources

Virtual Machines– Resources as VM instances

Provider Manages Infrastructure – CSP manages the infrastructure

Pay-Per-use– Billing done based on how much one uses

Characteristics

Multi-tenancy
Virtualized Hardware
Management and Monitoring Tools
Disaster Recovery

Adoption

Individual Users: Low
Small and Medium Enterprises : Medium
Large Organizations: High
Government: High

CLOUD SERVICES

IaaS

Benefits

- Less need for IT management activities
- No Infrastructure management Costs
- Pay-per-use
- Guaranteed performance
- Dynamic scaling
- Secure Access
- Enterprise Grade infrastructure
- Green IT adoption

CLOUD SERVICES

IaaS

PES UNIVERSITY
CELEBRATING 50 YEARS

Examples

- Amazon EC2
- Google Compute
- Rackspace
- GoGrid
- Eucalyptus
- Joyent
- Terremark
- OpSource
- Savvis
- Nimbula
- Enamoly

CLOUD SERVICES

PaaS

Development & Deployment – Tools, APIs, Libraries

Provider Manages Infrastructure– CSPs manages servers, network, operating systems and storage

User Manages Application – Users are responsible for developing, deploying, configuring and managing applications

PES UNIVERSITY
CELEBRATING 50 YEARS

Characteristics

Multi-tenancy
Open Integration Protocols
App Development Tools and SDKs
Analytics

Adoption

Individual Users: Low
Small and Medium Enterprises : Medium
Large Organizations: High
Government: Medium

Benefits

- Lower upfront and operational costs
- No Infrastructure management Costs
- Improved Scalability
- Higher performance
- Secure Access
- Quick and easy development
- Seamless Integration

CLOUD SERVICES

PaaS

Examples

- Elastic Beanstalk
- Google App Engine
- Windows Azure Platform
- Force.com
- RightScale
- Heorku
- Github
- Gigaspaces
- AppScale
- OpenStack
- LongJump

CLOUD SERVICES

SaaS

Software/Interface – Complete Software or UI

Outsourced Management – manages Servers, OS, storage and application software

Thin client interfaces – Accessible in browser & is platform independent

Ubiquitous Access – Application and data managed by cloud, hence accessible anywhere

SaaS

Characteristics

Multi-tenancy
On-demand Software
Open Integration Protocols
Social Network Integration

Adoption

Individual Users: High
Small and Medium Enterprises : High
Large Organizations: High
Government: Medium

CLOUD SERVICES

SaaS

Benefits

- Lower costs
- No infrastructure required
- Seamless upgrades
- Guaranteed performance
- Automated Backups
- Easy Data Recovery
- Secure
- High adoption
- On-the-move access

CLOUD SERVICES

SaaS

PES UNIVERSITY
CELEBRATING 50 YEARS

Examples

- Google Apps
- Salesforce.com
- Facebook
- Zoho
- Dropbox
- Taleo
- Microsoft office 365
- Linkedin
- Slideshare
- CareCloud

PES UNIVERSITY

CELEBRATING 50 YEARS

THANK YOU

S Thenmozhi

Department of Computer Applications

thenmozhis@pes.edu

+91 80 6666 3333 Extn 393