SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF MCA

I YEAR II SEM

23CAE717 – Cloud Computing

UNIT IV – PROGRAMMING MODEL

Topic 26: Programming Support Amazon AWS

Programming on Amazon EC2

- EC2 provides the virtualized platforms to the host VMs
- S3 (Simple Storage Service) provides the object-oriented storage service for users
- EBS (Elastic Block Service) provides the block storage service
- SQS (Simple Queue Service) is to ensure a reliable message service between two processes
- Simple Notification Service (SNS)
- auto-scaling and elastic load balancing are enabled by CloudWatch which monitors running instances

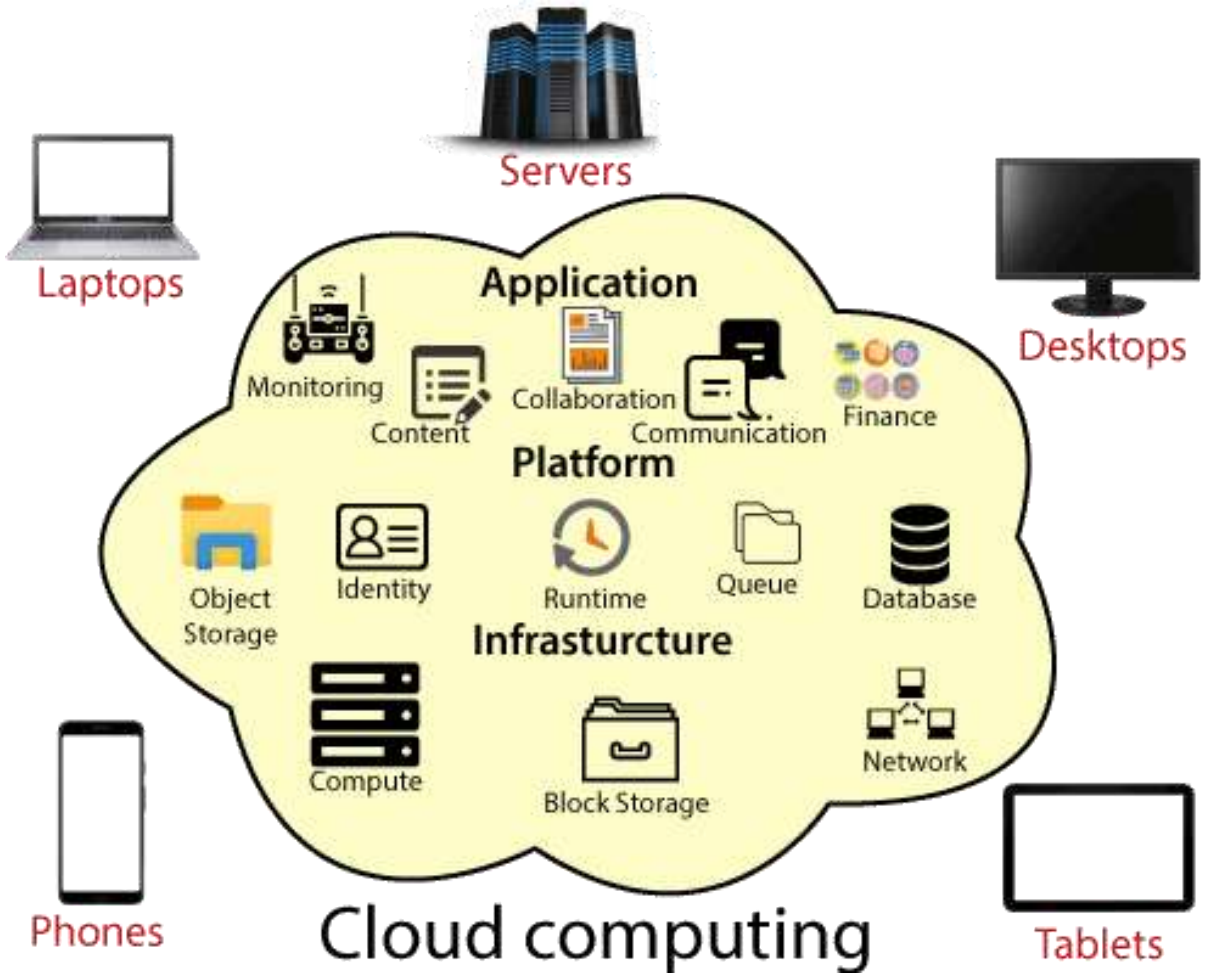
Programming on Amazon EC2

- User can rent VM Instances to run their applications, VM instances are often called Amazon Machine Images (AMIs)
- workflow to create a VM is

  Create an AMI→Create Key Pair→Configure Firewall→Launch
- This is supported by three types of AMIs

Image Type	AMI Definition
Private AMI	Images created by you, which are private by default. You can grant access to other users to launch your private images.
Public AMI	Images created by users and released to the AWS community, so anyone can launch instances based on them and use them any way they like. AWS lists all public images at http://developer.amazonwebservices.com/connect/kbcategory.jspa?categoryID=171.
Paid QAMI	You can create images providing specific functions that can be launched by anyone willing to pay you per each hour of usage on top of Amazon's charges.

Cloud Computing



Advantages of Cloud Computing

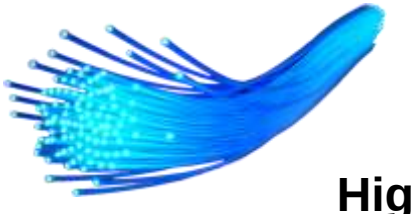
Cost Savings

Mobility

Back-up and restore data

Quick Deployment

Strategic edge



High speed

Unlimited storage capacity

Collaboration

Automatic Software Integration

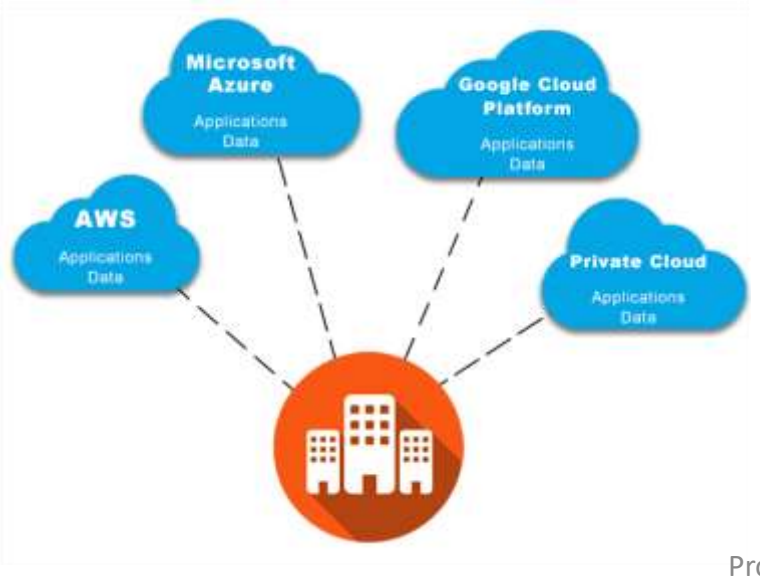
Cloud Computing Deployment Models

Cloud

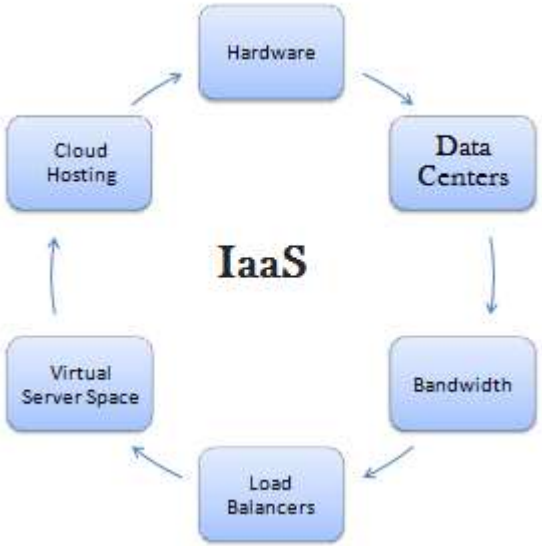
Hybrid

On-premises

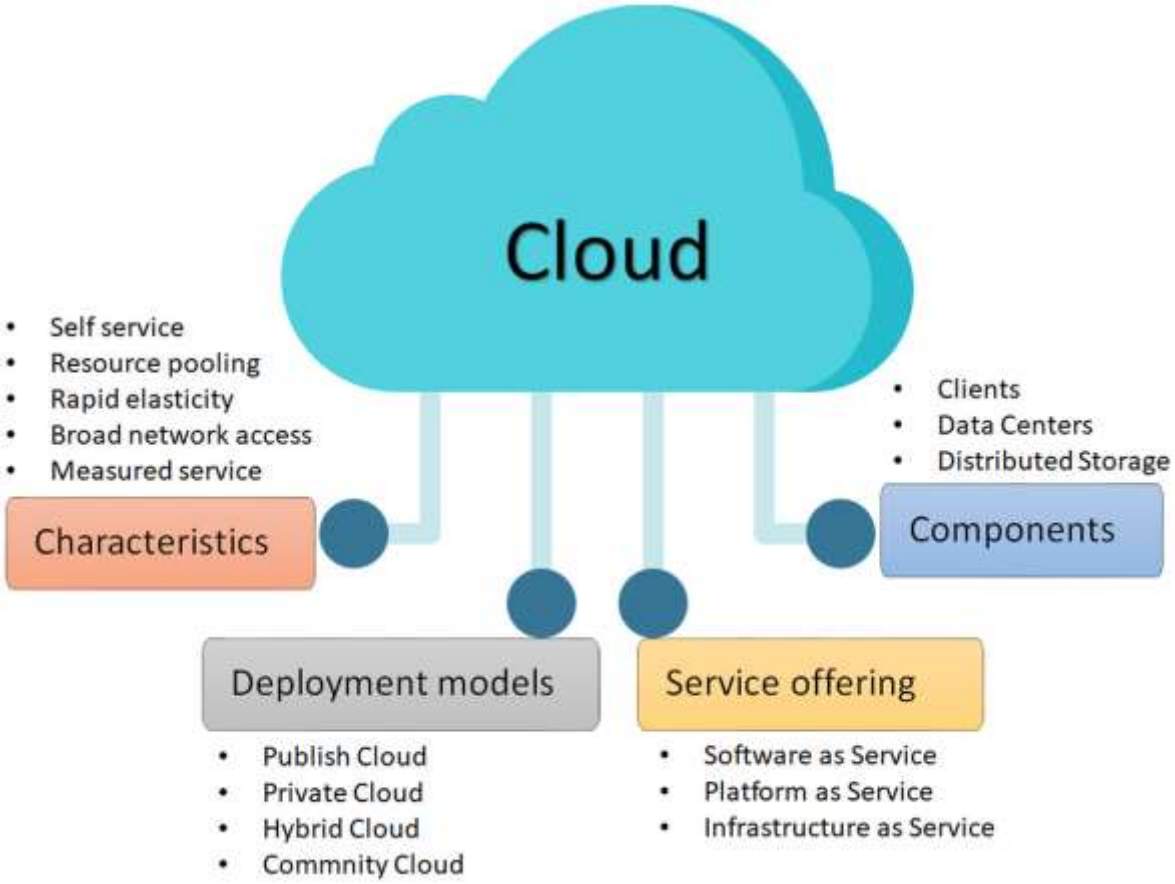
Multicloud

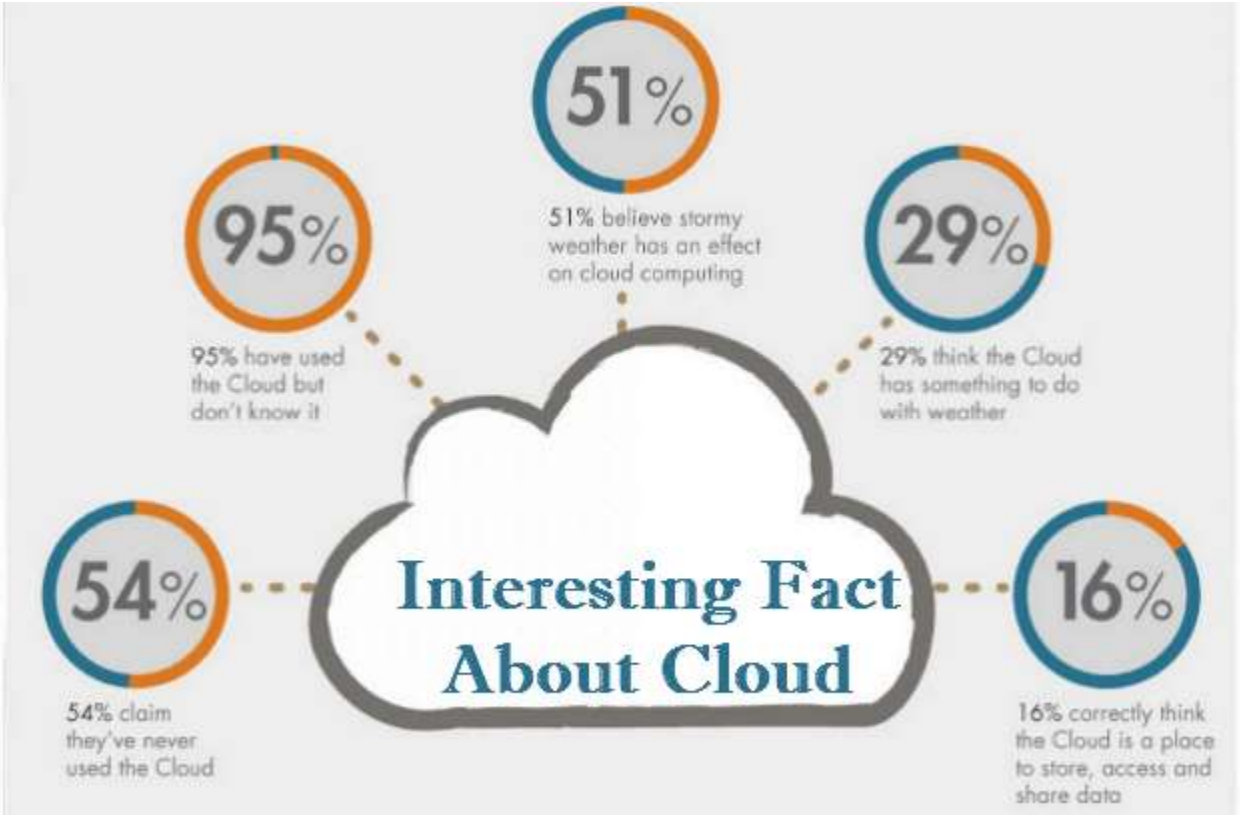


Services Provided by Cloud Providers



Cloud Computing Facts

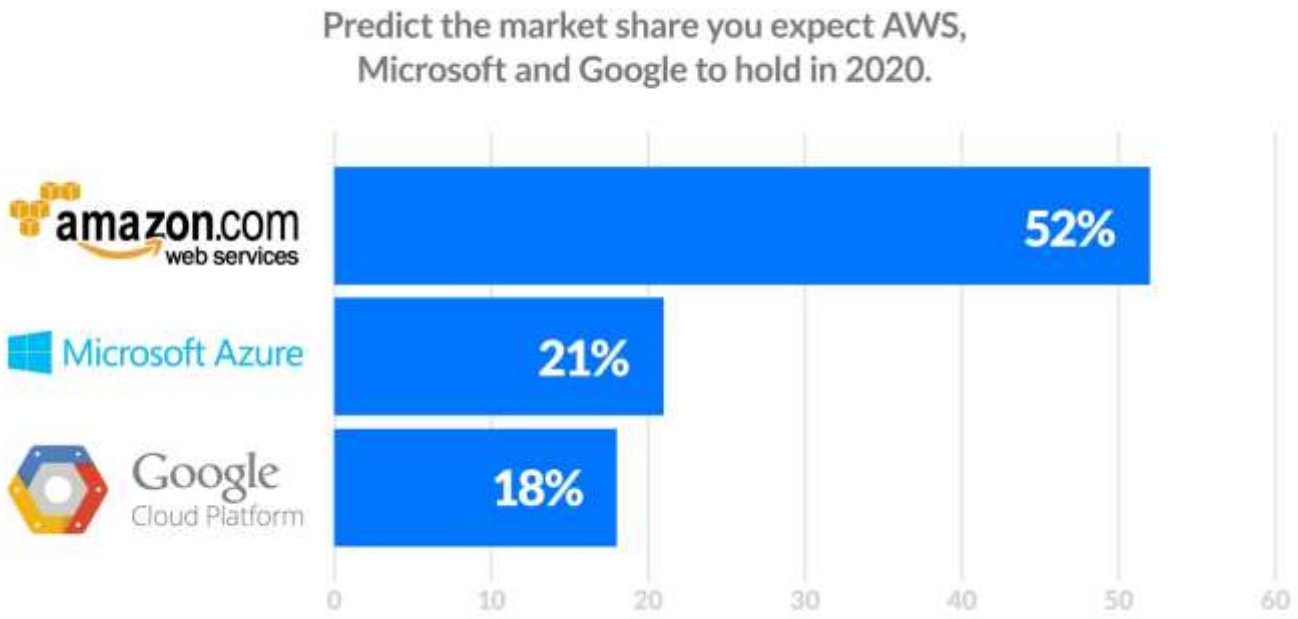




Top 10 Cloud Service Providers

1. Amazon Web Services (AWS)
2. Microsoft Azure
3. Google Cloud
4. Alibaba Cloud
5. IBM Cloud
6. Oracle
7. Salesforce
8. SAP
9. Rackspace Cloud
10. VMWare

The following diagram summarizes their strengths and weaknesses

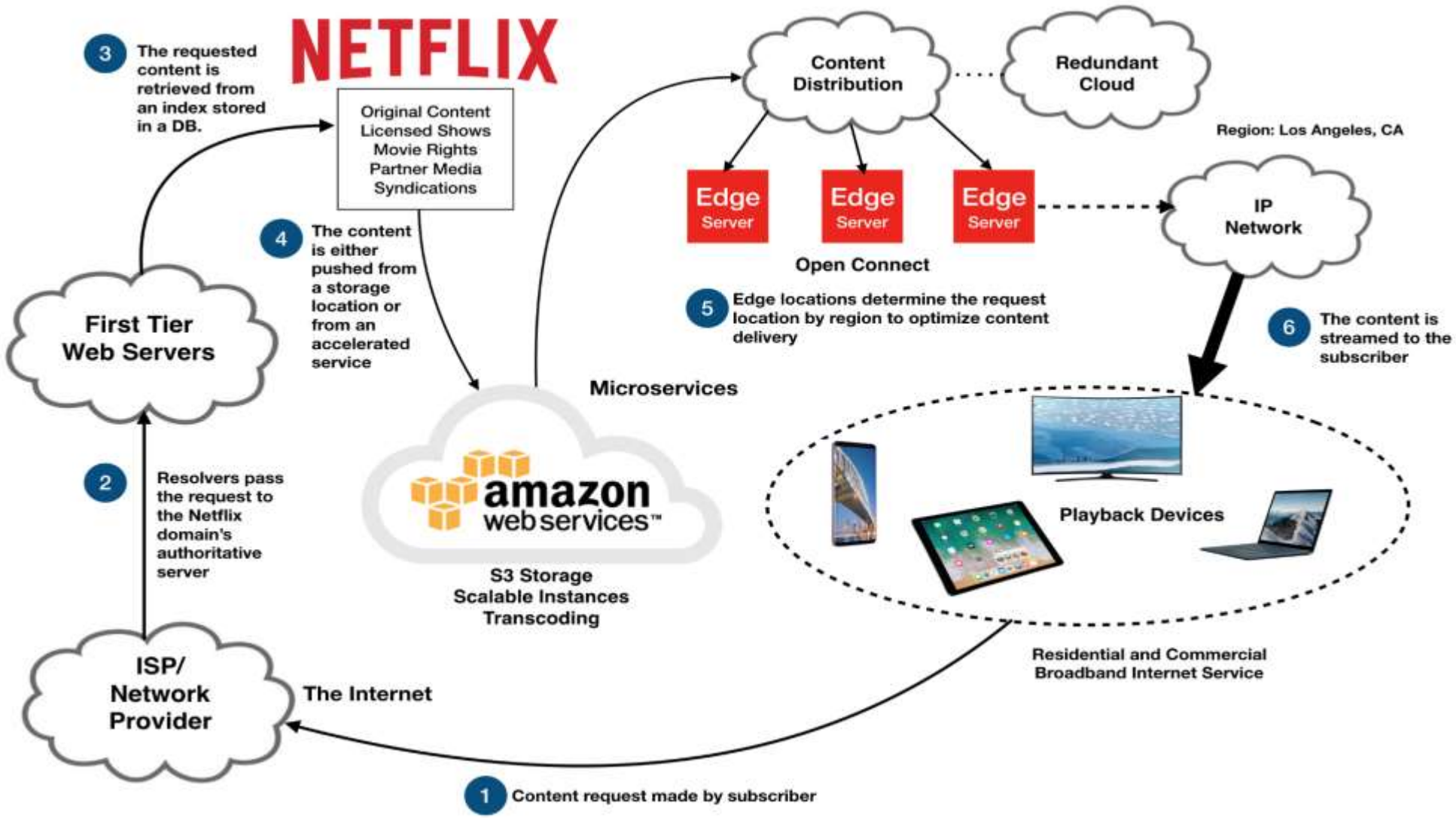


WHY AWS on TOP

The following diagram summarizes their strengths and weaknesses

Who is Using Amazon Web Services?

Netflix on AWS



References

1. Kai Hwang, Geoffrey C Fox, Jack G Dongarra, “Distributed and Cloud Computing, From Parallel Processing to the Internet of Things”, Morgan Kaufmann Publishers, 2012.


Thank You
Thank You
Thank You
Thank You
Thank You
Thank You
Thank You
Thank You
Thank You
Thank You