

Cloud Computing Unit–5

IMPORTANT QUESTIONS IN EASY AND DETAILED EXPLANATION

1. Issues in Cloud Computing

Introduction

Cloud computing useful hai, but isme kuch problems bhi hoti hain. Ye problems security, privacy, cost, performance aur provider dependency se related hoti hain.

Definition

Issues in cloud computing are the challenges faced while using cloud services such as security, privacy, availability, performance, data migration, cost and vendor lock-in.

Why It Is Needed

Cloud issues samajhna isliye important hai because companies cloud use karne se pehle risks analyze karti hain.

Easy Explanation

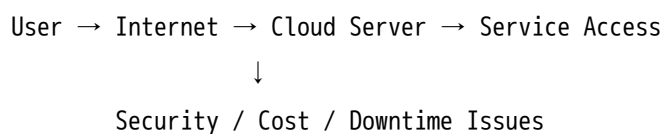
Cloud ek rented computer jaisa hai jo internet par available hota hai. Lekin jab data kisi aur ke server par hota hai, to security aur control ke issues aate hain.

Step-by-Step Working

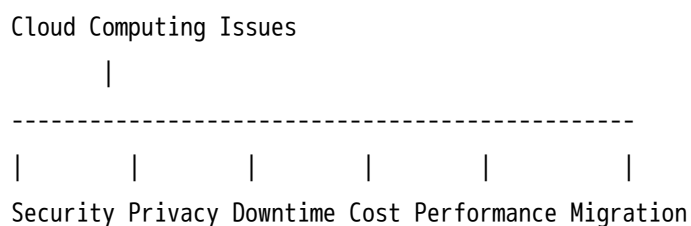
1. User cloud service use karta hai.

2. Data cloud server par store hota hai.
3. Internet ke through access hota hai.
4. Security, privacy, downtime aur cost problems aa sakti hain.
5. Cloud provider security tools se problems reduce karta hai.

Flow of Process



Diagram



Real-Life Analogy

Jaise rented room me rehne par owner ke rules follow karne padte hain, waise hi cloud me provider ke rules aur limitations follow karne padte hain.

Advantages

- Issues samajhne se better planning hoti hai
- Security improve hoti hai
- Cost control hota hai
- Risk management easy hota hai

Disadvantages

- Cloud provider par dependency
- Internet dependency
- Data privacy risk
- Unexpected cost

Applications

- Cloud planning
- Cloud security design
- Enterprise cloud migration
- Risk analysis

Important Keywords

Security, Privacy, Availability, Vendor Lock-in, Downtime, Performance, Migration

Conclusion

Cloud computing issues ko samajhna necessary hai because real cloud systems me security, cost, availability and performance important challenges hote hain.

2. QoS Issues in Cloud

Introduction

QoS ka full form **Quality of Service** hota hai. Ye batata hai ki cloud service kitni fast, reliable aur secure hai.

Definition

QoS in cloud computing refers to the quality level of cloud services based on performance, reliability, availability, response time, security and scalability.

Why It Is Needed

Agar cloud service slow ho, frequently down ho, ya insecure ho, to user trust lose ho jata hai.

Easy Explanation

QoS ka simple meaning hai: “Service quality kaisi hai?”

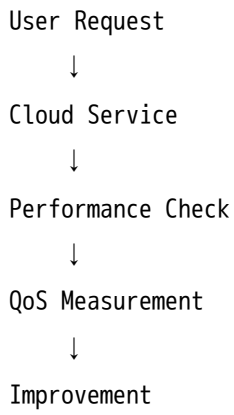
Main QoS Parameters

Parameter	Meaning
Availability	Service available rahe
Reliability	Service correctly kaam kare
Response Time	Fast reply mile
Throughput	Per second kitna work
Security	Data safe rahe
Scalability	Load badhne par handle kare

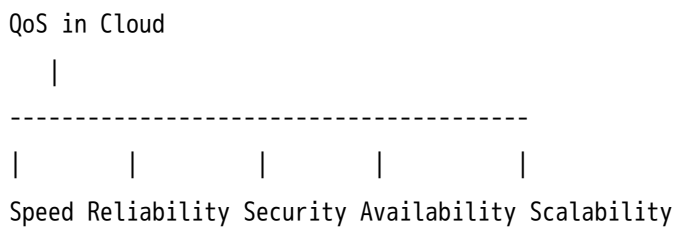
Step-by-Step Working

1. User request send karta hai.
2. Cloud service request process karti hai.
3. Response time measure hota hai.
4. Availability and reliability check hoti hai.
5. QoS monitoring tools performance evaluate karte hain.

Flow



Diagram



Real-Life Analogy

Restaurant me food tasty, fast aur clean milta hai to service quality achchi hoti hai. Cloud me bhi speed, safety aur availability QoS decide karte hain.

Advantages

- Better user satisfaction
- Reliable service
- SLA maintain hota hai
- Business trust increase hota hai

Disadvantages

- QoS maintain karna costly hai
- Continuous monitoring required
- Network delay affect karta hai

Applications

- Banking
- Online exams
- E-commerce
- Video streaming

Important Keywords

QoS, SLA, Availability, Reliability, Response Time, Throughput, Scalability

Conclusion

QoS ensures that cloud services provide good performance, security, reliability and availability.

3. Load Balancing

Introduction

Load balancing cloud ka very important topic hai. Ye user requests ko multiple servers me distribute karta hai.

Definition

Load balancing is the process of distributing workload among multiple servers to avoid overload and improve performance.

Why It Is Needed

Agar saara traffic ek server par aa jaye, to server slow ya crash ho sakta hai.

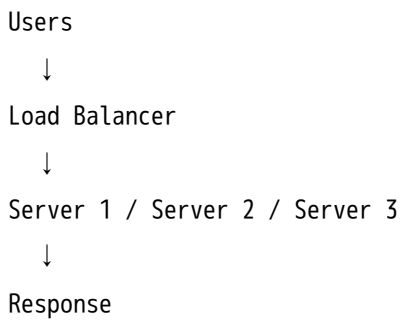
Easy Explanation

Load balancer traffic police jaisa hota hai. Ye requests ko different servers par bhejta hai.

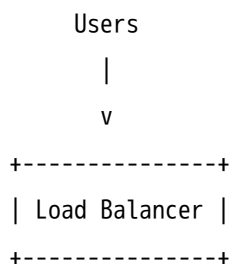
Step-by-Step Working

1. User request send karta hai.
2. Request load balancer ke paas aati hai.
3. Load balancer servers ka load check karta hai.
4. Request least busy server ko bhejta hai.
5. Server response user ko bhejta hai.

Flow



Diagram





Server1 Server2 Server3

Types

Type	Meaning
Round Robin	One-by-one request distribution
Least Connection	Least busy server selected
Static	Fixed rule based
Dynamic	Current load based

Real-Life Analogy

Exam hall me invigilator students ko different rooms me divide karta hai so crowd manage ho sake.

Advantages

- Better performance
- No server overload
- High availability
- Faster response
- Fault tolerance

Disadvantages

- Load balancer failure risk
- Setup cost
- Configuration complex

Applications

- Websites
- Online exams
- Banking apps
- E-commerce
- Cloud data centers

Important Keywords

Load Balancer, Workload Distribution, Scalability, High Availability, Round Robin

Conclusion

Load balancing improves cloud performance by distributing workload among multiple servers.

4. Cloud Middleware

Introduction

Cloud middleware ek bridge software hota hai. Ye cloud applications, services and databases ko connect karta hai.

Definition

Cloud middleware is software that connects cloud applications, services, databases and users for smooth communication and integration.

Why It Is Needed

Cloud me many services hoti hain. Unke beech communication ke liye middleware needed hota hai.

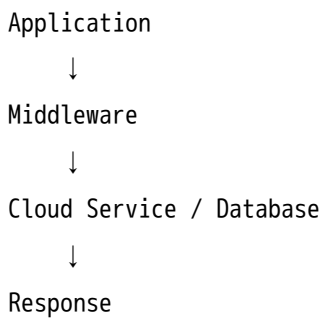
Easy Explanation

Middleware translator jaisa hai. Ye different systems ko ek dusre se baat karwata hai.

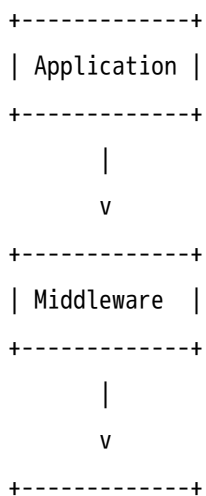
Step-by-Step Working

1. Application request send karti hai.
2. Middleware request receive karta hai.
3. Required service/database identify karta hai.
4. Data exchange handle karta hai.
5. Response application ko return karta hai.

Flow



Diagram



Real-Life Analogy

Payment gateway website aur bank ke beech middleware jaisa kaam karta hai.

Advantages

- Easy integration
- Smooth communication
- Security support
- Reduces complexity
- Supports distributed apps

Disadvantages

- Middleware failure affects system
- Extra cost
- Configuration difficult

Applications

- Banking systems
- E-commerce
- SaaS platforms
- Cloud APIs
- Enterprise software

Important Keywords

Middleware, API, Integration, Communication, Service Coordination, Distributed Application

Conclusion

Cloud middleware works as a bridge between applications and cloud services, making communication smooth and reliable.

5. Monitoring in Cloud

Introduction

Cloud monitoring means cloud system ko continuously observe karna. It checks performance, availability and security.

Definition

Cloud monitoring is the process of observing cloud resources, applications and services to measure performance, availability, usage and security.

Why It Is Needed

Agar server slow ho raha hai ya attack aa raha hai, monitoring tool early alert deta hai.

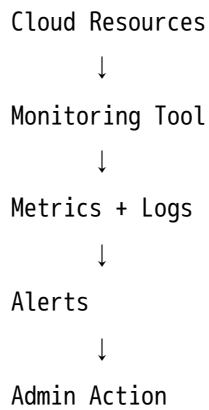
Easy Explanation

Monitoring cloud ka CCTV hai.

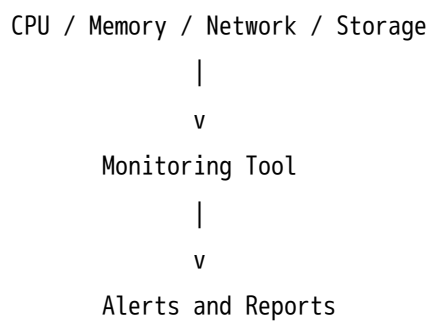
Step-by-Step Working

1. Cloud resources observe hote hain.
2. CPU, memory, storage, network check hota hai.
3. Logs collect hote hain.
4. Alerts generate hote hain.
5. Admin problem fix karta hai.

Flow



Diagram



Real-Life Analogy

Doctor patient ka BP, pulse and temperature monitor karta hai. Cloud monitoring system health check karta hai.

Advantages

- Problems early detect hote hain
- Downtime reduce hota hai

- Performance improve hoti hai
- Security improve hoti hai

Disadvantages

- Tools costly ho sakte hain
- Too many alerts
- Skilled admin required

Applications

- AWS CloudWatch
- Azure Monitor
- Google Cloud Monitoring
- Website uptime checking

Important Keywords

Monitoring, Metrics, Logs, Alerts, Performance, Availability, Downtime

Conclusion

Cloud monitoring ensures that cloud services remain healthy, secure and available.

6. Mobile Cloud Computing

Introduction

Mobile cloud computing mobile devices ko cloud power deta hai. Mobile apps cloud storage and processing use karti hain.

Definition

Mobile cloud computing is the combination of mobile computing and cloud computing where mobile applications use cloud resources for storage, processing and services.

Why It Is Needed

Mobile phones ki storage, battery and processing power limited hoti hai. Cloud in limitations ko solve karta hai.

Easy Explanation

Mobile cloud ka matlab: mobile ka heavy work cloud karega.

Step-by-Step Working

1. Mobile app request bhejti hai.
2. Internet request cloud server tak le jata hai.
3. Cloud processing karta hai.
4. Data cloud storage me save hota hai.
5. Result mobile app me show hota hai.

Flow

Mobile Device



Internet



Cloud Server

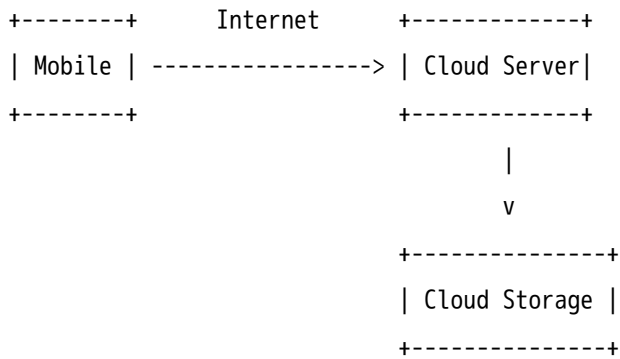


Cloud Storage



Mobile Response

Diagram



Real-Life Analogy

Calculator app chhoti calculation mobile par karta hai, but Google Photos face recognition cloud par karta hai.

Advantages

- Less storage needed on mobile
- Better processing power
- Data backup
- Access from anywhere
- Supports heavy apps

Disadvantages

- Internet required
- Privacy risk
- Network delay
- Security issues

Applications

- Google Photos
- Google Drive
- Mobile banking
- WhatsApp backup
- Cloud gaming

Important Keywords

Mobile Cloud, Offloading, Cloud Storage, Mobile Apps, Internet Dependency

Conclusion

Mobile cloud computing improves mobile applications by using cloud storage and processing power.

7. Data Migration

Introduction

Data migration means data ko ek system se dusre system me shift karna.

Definition

Data migration is the process of transferring data from one storage system, application or cloud platform to another.

Why It Is Needed

Jab organization local server se cloud par shift hoti hai, to old data cloud me migrate karna padta hai.

Easy Explanation

Jaise old phone se new phone me contacts and photos transfer karte hain, waise hi cloud me data transfer hota hai.

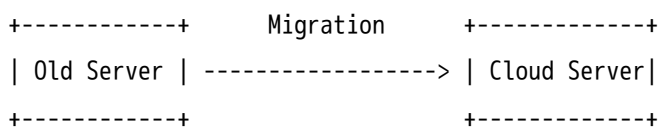
Step-by-Step Working

1. Existing data identify karo.
2. Migration plan banao.
3. Data backup lo.
4. Data transfer karo.
5. Data verify karo.
6. Application connect karo.
7. Old system remove/retire karo.

Flow

```
Old System
  ↓
Backup
  ↓
Transfer
  ↓
Cloud Storage
  ↓
Verification
  ↓
Use
```

Diagram



Types

Type	Meaning
Storage Migration	Files/storage shift
Database Migration	Database shift
Application Migration	Full app shift
Cloud-to-Cloud Migration	One cloud to another

Advantages

- Better scalability
- Easy access
- Backup support
- Cost saving

Disadvantages

- Data loss risk
- Downtime possible
- Compatibility issues
- Security risk during transfer

Applications

- Local server to AWS/Azure
- Website migration
- Database migration
- Backup migration

Important Keywords

Migration, Backup, Transfer, Verification, Compatibility, Downtime

Conclusion

Data migration is essential when organizations shift from traditional systems to cloud platforms.

8. Resource Optimization

Introduction

Resource optimization means cloud resources ka best use karna.

Definition

Resource optimization is the efficient use of cloud resources such as CPU, memory, storage and network to improve performance and reduce cost.

Why It Is Needed

Unused resources cost badhate hain. Overloaded resources performance slow karte hain.

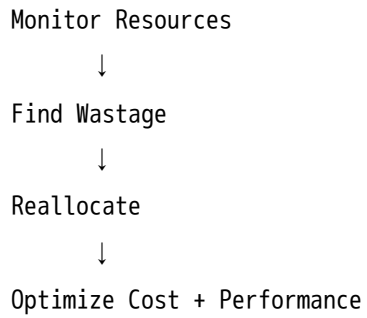
Easy Explanation

Jitni zarurat ho utna hi resource use karna resource optimization hai.

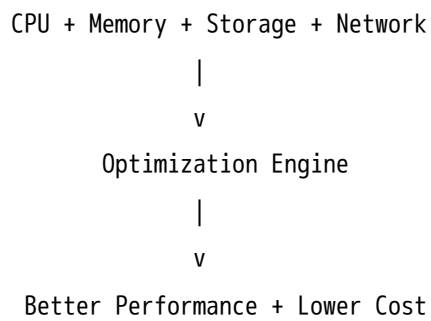
Step-by-Step Working

1. Cloud resources monitor karo.
2. Idle resources identify karo.
3. Overloaded resources identify karo.
4. Resources reallocate karo.
5. Auto-scaling apply karo.
6. Cost and performance improve karo.

Flow



Diagram



Real-Life Analogy

Bijli bachane ke liye unused lights off karna resource optimization jaisa hai.

Advantages

- Cost saving
- Better performance
- Less wastage
- Efficient cloud usage

Disadvantages

- Monitoring tools required
- Wrong optimization can reduce performance
- Complex planning

Applications

- Cloud cost management
- Data centers
- SaaS apps
- Enterprise systems

Important Keywords

Resource Utilization, CPU, Memory, Storage, Auto Scaling, Cost Optimization

Conclusion

Resource optimization helps cloud providers and users reduce cost and improve performance.

9. Inter Cloud Issues

Introduction

Inter Cloud ka matlab hai multiple clouds ka connection and cooperation.

Definition

Inter Cloud refers to interaction, communication and resource sharing among multiple cloud providers or cloud environments.

Why It Is Needed

Sometimes one cloud provider enough nahi hota. Companies multi-cloud use karti hain for backup and reliability.

Easy Explanation

Inter Cloud means AWS, Azure, Google Cloud jaise multiple clouds ko together use karna.

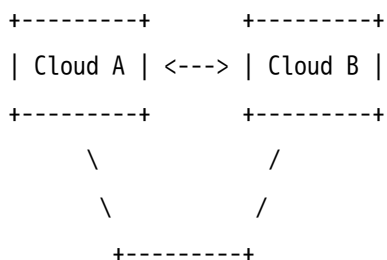
Step-by-Step Working

1. Organization multiple clouds choose karti hai.
2. Data/services different clouds me distribute hote hain.
3. Clouds ke beech communication hota hai.
4. Workload shift hota hai.
5. Backup and disaster recovery improve hota hai.

Flow

Cloud A ↔ Cloud B ↔ Cloud C
↓
Multi-Cloud Service

Diagram



Issues

Issue	Meaning
Security	Data transfer risk
Compatibility	Different platforms
Vendor Lock-in	Provider change difficult
Standardization	Common rules missing
Performance	Network delay
Cost	Multi-cloud costly

Advantages

- Better availability
- Disaster recovery
- Load sharing
- Flexibility

Disadvantages

- Complex management
- Security challenges
- Cost increase
- Compatibility problems

Applications

- Multi-cloud systems
- Backup
- Disaster recovery

- Global applications

Important Keywords

Inter Cloud, Multi-Cloud, Interoperability, Compatibility, Vendor Lock-in

Conclusion

Inter Cloud improves flexibility and reliability but creates security, compatibility and management challenges.

10. Sky Computing

Introduction

Sky computing means multiple clouds ke upar ek common computing layer banana.

Definition

Sky computing is a model where multiple cloud platforms are combined and presented as one large unified cloud system.

Why It Is Needed

Different clouds ke resources ko ek saath use karne ke liye sky computing needed hai.

Easy Explanation

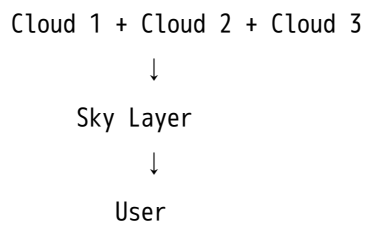
Sky computing = cloud ke upar cloud.

Step-by-Step Working

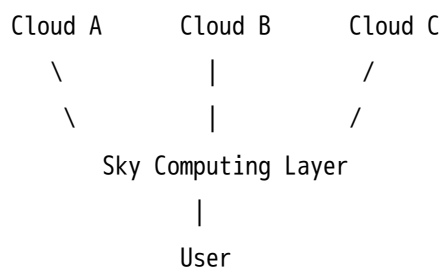
1. Multiple cloud providers connect hote hain.

2. Sky layer unhe manage karti hai.
3. User ko single cloud view milta hai.
4. Workload best cloud par assign hota hai.
5. Resources combined way me use hote hain.

Flow



Diagram



Real-Life Analogy

Different shops ke products ek mall me mil jate hain. User ko ek place par multiple services milti hain.

Advantages

- More resources

- Single interface
- Better availability
- Avoids dependency on one provider

Disadvantages

- Very complex
- Security issues
- Standardization problems
- Cost management difficult

Applications

- Large enterprises
- Research computing
- Multi-cloud management
- Disaster recovery

Important Keywords

Sky Computing, Multi-Cloud, Unified Cloud, Federation, Resource Sharing

Conclusion

Sky computing combines multiple cloud platforms into one large unified cloud system.

11. Grid of Clouds

Introduction

Grid of clouds means multiple clouds ka group jo resources share karta hai.

Definition

A grid of clouds is a collection of multiple cloud systems connected together to share resources and execute large-scale tasks.

Why It Is Needed

Large tasks ke liye single cloud enough nahi hota. Grid of clouds resources share karke large task solve karta hai.

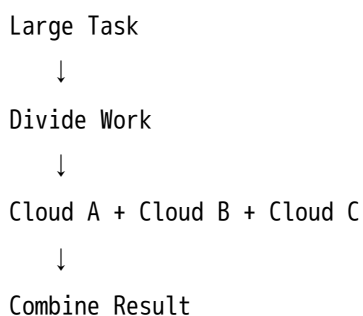
Easy Explanation

Many clouds working together = grid of clouds.

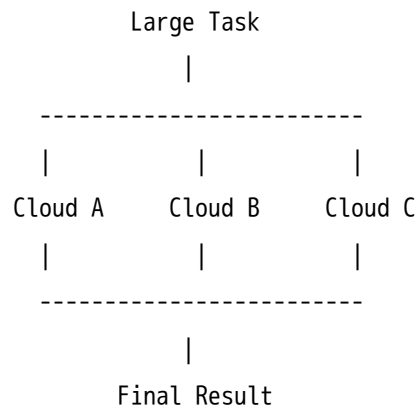
Step-by-Step Working

1. Multiple clouds connect hote hain.
2. Resource availability check hoti hai.
3. Task different clouds me divide hota hai.
4. Clouds task process karte hain.
5. Final result combine hota hai.

Flow



Diagram



Advantages

- More computing power
- Resource sharing
- Better scalability
- High availability

Disadvantages

- Coordination difficult
- Security issues
- Network delay
- Management complex

Applications

- Scientific research
- Big data processing
- Disaster recovery
- Global cloud applications

Important Keywords

Grid of Clouds, Resource Sharing, Distributed Clouds, Scalability, Federation

Conclusion

Grid of clouds connects multiple cloud systems to share resources and handle large tasks.

12. Performance Evaluation

Introduction

Performance evaluation means cloud system ki speed, reliability and efficiency check karna.

Definition

Performance evaluation is the process of measuring cloud system performance using parameters like response time, throughput, CPU usage, memory usage and availability.

Why It Is Needed

Cloud service achchi chal rahi hai ya nahi, ye evaluate karna zaroori hai.

Parameters

Parameter	Meaning
Response Time	Reply time
Throughput	Work done per second
CPU Utilization	CPU usage
Memory Usage	RAM usage
Availability	Service uptime
Scalability	Load handle capacity

Step-by-Step Working

1. Cloud service deploy karo.
2. Test workload apply karo.
3. Performance metrics collect karo.
4. Result analyze karo.
5. Bottleneck identify karo.
6. Optimization apply karo.

Flow

Deploy Cloud Service



Apply Load



Measure Metrics



Analyze Result



Improve System

Diagram

Cloud System



Testing Tool



Metrics



Performance Report

Advantages

- Performance problems detect hote hain
- Better planning possible
- QoS improve hota hai
- Cost optimization possible

Disadvantages

- Testing time-consuming
- Tools required
- Skilled person needed

Applications

- Cloud platform testing
- Web application testing
- SLA verification
- Resource planning

Important Keywords

Response Time, Throughput, CPU Utilization, Memory Usage, Scalability, Bottleneck

Conclusion

Performance evaluation helps measure and improve cloud service quality.

13. Dynamic Reconfiguration

Introduction

Dynamic reconfiguration means runtime par cloud resources automatically change karna.

Definition

Dynamic reconfiguration is the process of automatically adjusting cloud resources at runtime according to changing workload.

Why It Is Needed

Traffic kabhi kam kabhi zyada hota hai. Cloud ko automatically adjust hona chahiye.

Easy Explanation

Agar website par traffic badh gaya, cloud extra servers add karega. Traffic kam hua, servers reduce karega.

Step-by-Step Working

1. Monitoring tool load check karta hai.
2. High load detect hota hai.
3. More resources add hote hain.
4. Low load detect hota hai.
5. Extra resources remove hote hain.
6. Cost and performance balance hota hai.

Flow

Monitor Load

↓

High Load? → Add Resources

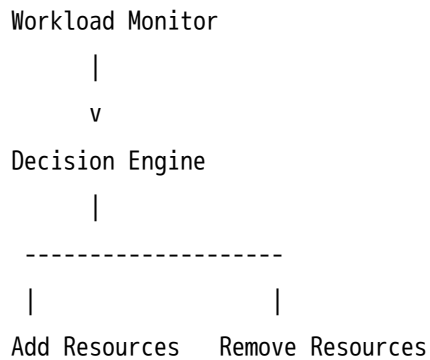
↓

Low Load? → Remove Resources

↓

Optimized Cloud

Diagram



Advantages

- Automatic scaling
- Better performance
- Cost saving
- Handles sudden traffic

Disadvantages

- Automation setup complex
- Wrong scaling affects service
- Monitoring required

Applications

- E-commerce sale
- Online exams
- Streaming platforms
- Cloud gaming

Important Keywords

Dynamic Reconfiguration, Runtime Adjustment, Auto Scaling, Elasticity, Workload

Conclusion

Dynamic reconfiguration makes cloud flexible by automatically changing resources according to demand.

14. Streaming in Cloud

Introduction

Cloud streaming means audio, video or data ko continuously internet se deliver karna.

Definition

Cloud streaming is the continuous delivery of media or data from cloud servers to users over the internet without full download.

Why It Is Needed

Large video/audio files full download karna time-consuming hota hai. Streaming instant playback allow karta hai.

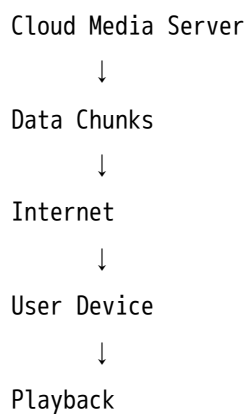
Easy Explanation

YouTube video download hone ka wait nahi karna padta. Video small chunks me aata hai and play hota hai.

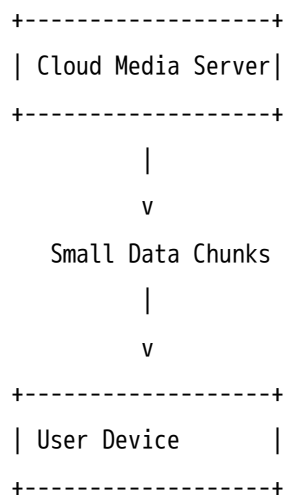
Step-by-Step Working

1. Media file cloud server par stored hoti hai.
2. User play request bhejta hai.
3. Server file ko small chunks me divide karta hai.
4. Chunks internet se user device tak aate hain.
5. Device chunks ko continuously play karta hai.

Flow



Diagram



Real-Life Analogy

Water tap se continuous water flow hota hai. Streaming me data continuous flow hota hai.

Advantages

- No full download needed
- Instant playback
- Supports many users
- Easy access

Disadvantages

- Internet dependency
- Buffering problem
- High bandwidth required
- Server load high

Applications

- YouTube
- Netflix
- Spotify
- Live classes
- Cloud gaming

Important Keywords

Streaming, Buffering, Bandwidth, Data Chunks, Media Server, CDN

Conclusion

Cloud streaming enables continuous delivery of audio, video and data from cloud servers to users.

Proper Comparison Tables

Load Balancing vs Resource Optimization

Point	Load Balancing	Resource Optimization
Meaning	Workload distribute karna	Resources ka best use
Focus	Traffic management	Cost + performance
Main Tool	Load balancer	Monitoring + auto scaling
Benefit	No overload	Less wastage
Example	Requests across servers	Idle VM shutdown

Sky Computing vs Grid of Clouds

Point	Sky Computing	Grid of Clouds
Meaning	Multiple clouds as one cloud	Multiple clouds connected
Focus	Unified cloud view	Resource sharing
Complexity	Very high	High
Use	Multi-cloud management	Large-scale computing

Monitoring vs Performance Evaluation

Point	Monitoring	Performance Evaluation
Meaning	Continuous observation	Testing and measuring
Time	Regular/continuous	Periodic/testing phase
Output	Alerts/logs	Performance report
Purpose	Detect problem	Improve performance

Which Is Better and Why?

No single technique is best. Best cloud system uses all together:

Best Cloud Management =

Monitoring + Load Balancing + Resource Optimization + Dynamic Reconfiguration

For exam write:

A combined approach is better because monitoring detects problems, load balancing distributes workload, resource optimization reduces wastage, and dynamic reconfiguration automatically adjusts resources.



Most Important 7-Mark Questions

1. Explain issues in cloud computing.
 2. Explain QoS issues in cloud.
 3. Explain load balancing with diagram.
 4. Explain cloud middleware.
 5. Explain monitoring in cloud.
 6. Explain mobile cloud computing.
 7. Explain data migration.
 8. Explain resource optimization.
 9. Explain Inter Cloud issues.
 10. Explain sky computing.
 11. Explain grid of clouds.
 12. Explain performance evaluation.
 13. Explain dynamic reconfiguration.
 14. Explain streaming in cloud.
-



Most Important 14-Mark Questions

1. Explain major issues and challenges in cloud computing.

2. Explain QoS issues in cloud with parameters and examples.
 3. Explain load balancing, its working, types and advantages.
 4. Explain cloud middleware with functions and applications.
 5. Explain mobile cloud computing with architecture, advantages and challenges.
 6. Explain data migration and streaming in cloud.
 7. Explain Inter Cloud, grid of clouds and sky computing.
 8. Explain resource optimization and dynamic reconfiguration.
 9. Explain monitoring and performance evaluation in cloud.
-

PYQ-Based Expected Questions

Very High Probability

- Issues in cloud computing
- QoS issues in cloud
- Load balancing
- Cloud middleware
- Monitoring in cloud

High Probability

- Mobile cloud computing
- Data migration
- Resource optimization
- Inter Cloud issues
- Dynamic reconfiguration

Medium Probability

- Sky computing
- Grid of clouds
- Streaming in cloud

- Performance evaluation
-

One-Night Revision Notes

Issues = Security + Privacy + Cost + Downtime + Migration

QoS = Quality of Service

QoS parameters = Availability, Reliability, Response Time, Security

Load Balancing = Workload distribution

Middleware = Bridge between apps and cloud services

Monitoring = CCTV of cloud

Mobile Cloud = Mobile apps using cloud resources

Data Migration = Data shifting

Resource Optimization = Best use of CPU, memory, storage

Inter Cloud = Multiple clouds connected

Sky Computing = Cloud over multiple clouds

Grid of Clouds = Multiple clouds sharing resources

Performance Evaluation = Measuring speed and efficiency

Dynamic Reconfiguration = Runtime resource adjustment

Streaming = Continuous data delivery

2-Hour Strategy

- 30 min → Issues + QoS
- 25 min → Load Balancing + Monitoring
- 20 min → Middleware + Mobile Cloud
- 20 min → Data Migration + Streaming
- 15 min → Resource Optimization + Dynamic Reconfiguration
- 10 min → Inter Cloud + Sky Computing

5-Hour Strategy

- 1 hour → Issues + QoS
- 1 hour → Load Balancing + Monitoring
- 1 hour → Middleware + Mobile Cloud
- 1 hour → Migration + Streaming + Performance Evaluation
- 1 hour → Resource Optimization + Inter Cloud + Revision

One-Night Priority Order

1. Issues in Cloud Computing
2. QoS Issues
3. Load Balancing
4. Cloud Middleware
5. Monitoring
6. Mobile Cloud Computing
7. Data Migration
8. Resource Optimization
9. Inter Cloud Issues
10. Dynamic Reconfiguration



Memory Tricks

QoS = Speed + Safety + Service

Load Balancer = Traffic Police

Middleware = Middle Bridge

Monitoring = Cloud CCTV

Migration = Shift karna

Streaming = Flow of data

Sky Computing = Clouds ke upar cloud

Dynamic Reconfiguration = Auto adjust cloud



Topper Answer Writing Tips

For every 7-mark answer write:

Definition

Need

Diagram

Working

Advantages

Applications

Conclusion

For every 14-mark answer write:

Definition

Introduction

Need

Architecture / Diagram

Working Steps

Types / Issues

Advantages

Disadvantages

Applications

Conclusion

Underline these keywords:

QoS, SLA, Availability, Reliability, Load Balancing, Middleware, Monitoring, Migration, Resource Optimization, Inter Cloud, Sky Computing, Scalability, Dynamic Reconfiguration

Final exam tip:

Simple box diagram + keywords + example = high scoring RGPV answer.