Maxamind Case Study:Core5

Maxamind, a leading online gaming company, faced challenges scaling its infrastructure to meet the demands of its growing player base.

Partnering with Core5 Systems & Services Pvt. Ltd., an AWS Advanced Tier Partner, Maxamind successfully implemented a robust and scalable cloud solution leveraging AWS services.

About Maxamind

Real-Time Multiplayer Experiences

Maxamind specializes in developing and operating real-time

multiplayer games, offering

immersive and

interactive gameplay for millions of

players worldwide.

Seamless Gameplay and Low Latency

Delivering high-quality, lag-free gaming experiences is paramount

for Maxamind, ensuring smooth

and responsive gameplay for all

players.

Massive Concurrent Player Bases

Maxamind's games attract millions of players concurrently, requiring a

robust infrastructure capable of handling high traffic and peak demand.

The Challenge: Scaling Infrastructure for a Growing Player Base

1 Legacy Infrastructure Limitations

Maxamind's on-premise infrastructure struggled to handle the surge in players, leading to latency issues and performance bottlenecks during peak times.
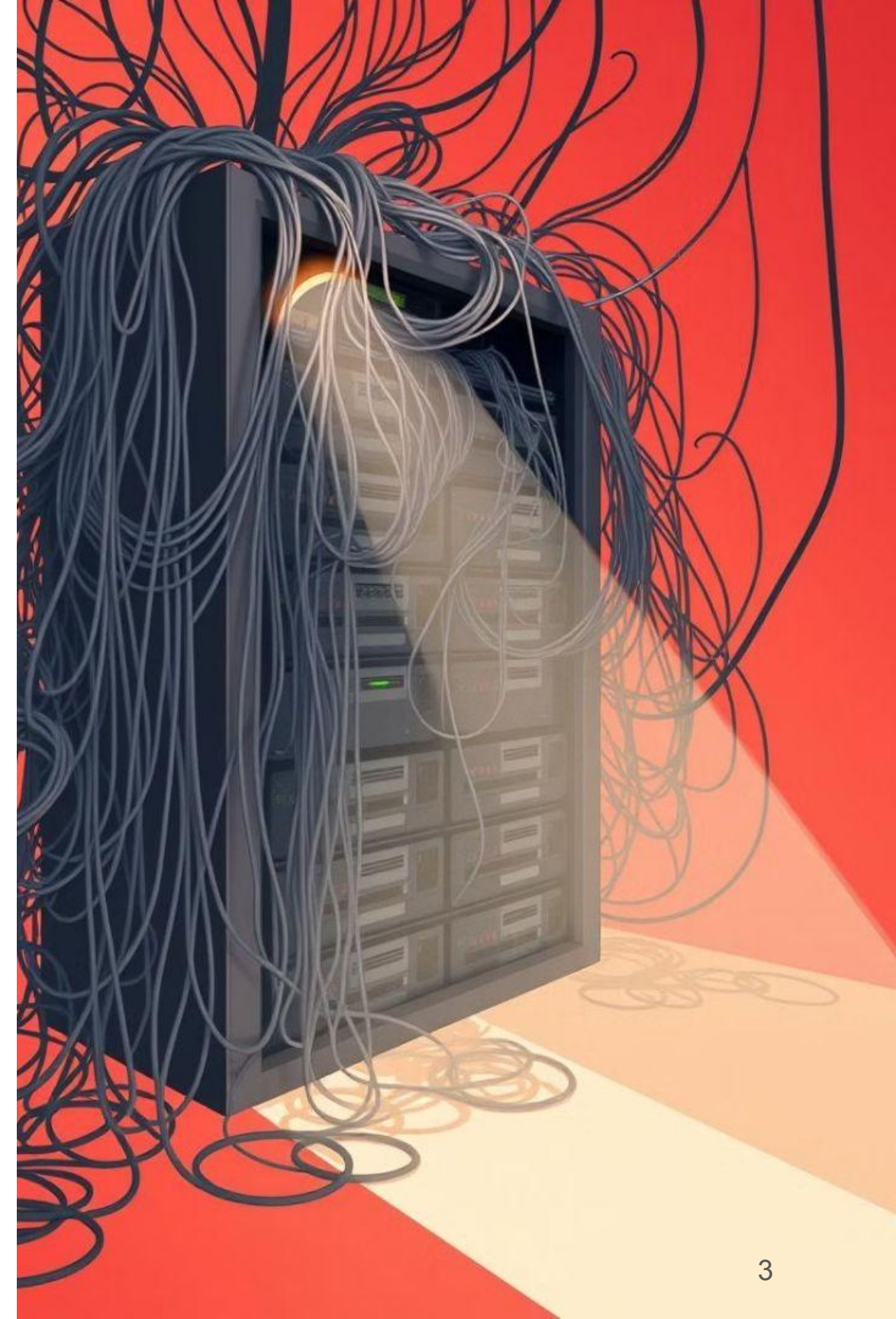
2 Limited Scalability and Cost Concerns

The existing infrastructure lacked the flexibility to scale rapidly, hindering Maxamind's ability to accommodate new players efficiently and manage increasing costs.

3 Maintaining Server Stability and Uptime

Server downtime due to infrastructure limitations directly impacted player satisfaction and negatively affected Maxamind's reputation in the competitive gaming industry.

Choosing AWS: The Cloud Solution for Gaming

Global Infrastructure and Scalability

AWS offered Maxamind a vast and globally distributed infrastructure, allowing them to scale their resources on demand to meet the needs of their expanding player base.

Advanced Gaming Solutions

AWS provides specialized services designed specifically for gaming, such as multiplayer matchmaking, real-time game synchronization, and content delivery, addressing Maxamind's unique requirements.

Cost Optimization and Flexibility

AWS's pay-as-you-go pricing model allowed Maxamind to optimize their infrastructure costs, while the platform's flexibility enabled them to adapt their resources as needed.

Partnering with Core5 Systems & Services Pvt. Ltd.

Expertise in Cloud Infrastructure

Core5's deep knowledge and experience in cloud infrastructure solutions were key in

understanding Maxamind's specific needs and developing a tailored solution.

AWS Advanced Tier Partner Status

Core5's expertise and commitment to AWS were evident in their AWS Advanced Tier Partner

status, demonstrating their deep understanding of the platform and its capabilities.

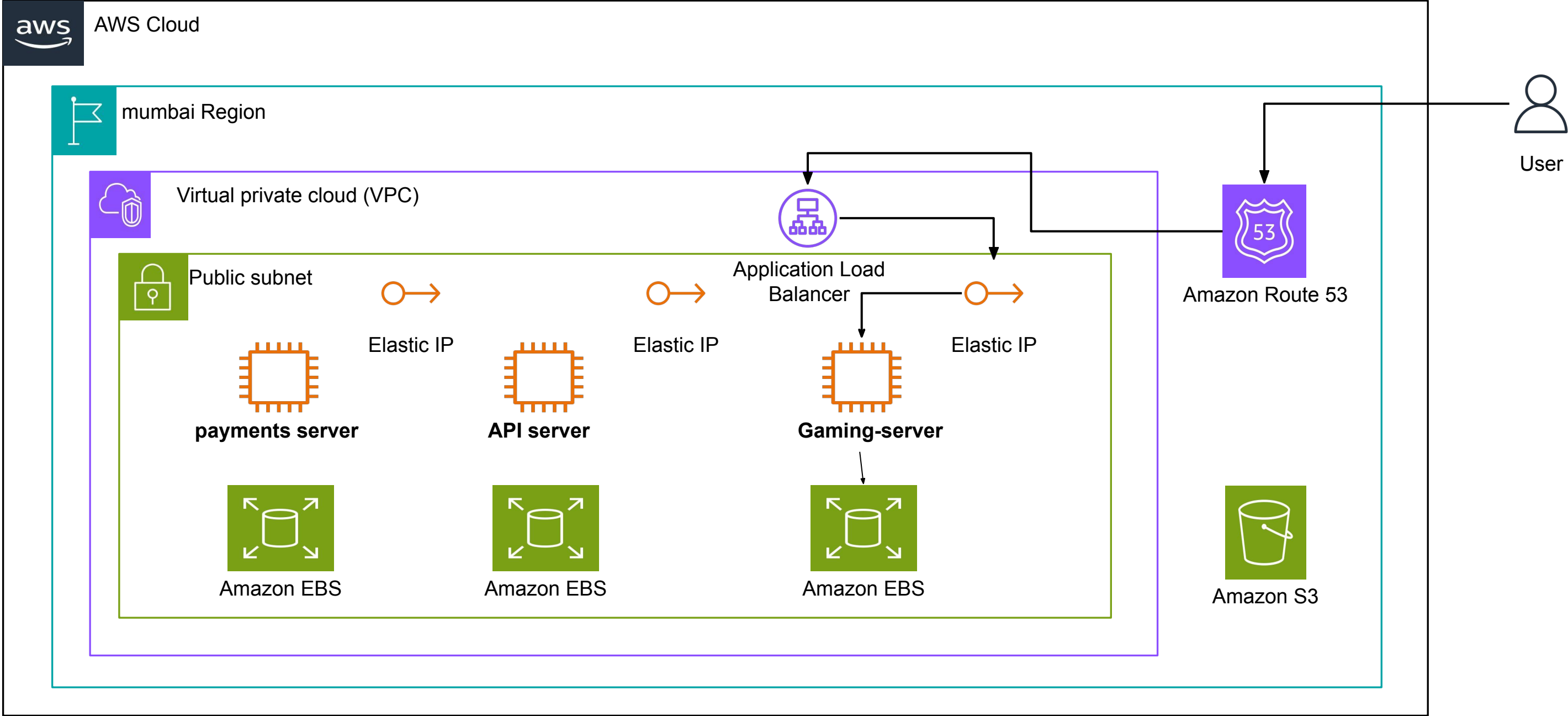## Industry Knowledge and Proven Track Record

Core5's proven track record in delivering successful cloud solutions for businesses in demanding

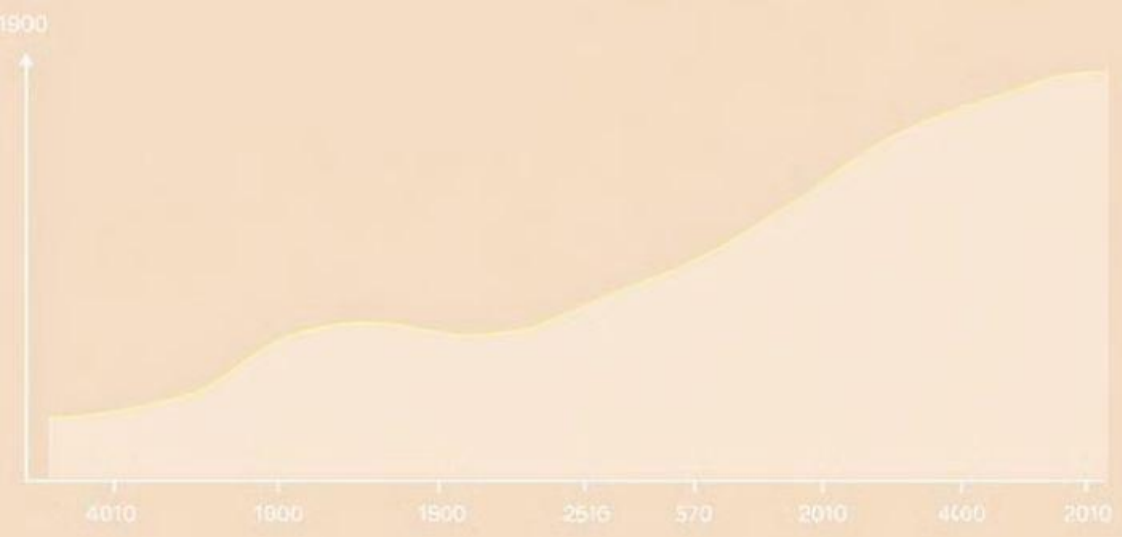environments gave Maxamind confidence in their partnership.

Core5's Solution: Architecting a Scalable and Secure Infrastructure

Virtual Private Cloud (VPC)	Created a secure, isolated network for Maxamind's gaming services, enhancing security and isolation.
Gaming, API, and Payments Servers	Deployed in public subnets, each with an Elastic IP for direct and reliable access, ensuring high availability and performance.
Amazon EBS (Elastic Block Store)	Used for fast, persistent storage on servers, providing reliable and high-performance data storage.
Application Load Balancer (ALB)	Distributed traffic across multiple gaming servers, improving performance and scalability by load balancing incoming requests.
Amazon Route 53	Managed traffic routing efficiently, sending users to the nearest server with low latency, minimizing network delays and improving player experience.
Amazon S3	Stored game assets, updates, and backups, ensuring secure, scalable, and globally accessible storage for game data.

Architecture Diagram

CORE5
SYSTEMS & SERVICES

aws AWS Cloud

mumbai Region

Virtual private cloud (VPC)

Application Load Balancer

Amazon Route 53

User

Public subnet

Elastic IP

payments server

Amazon EBS

Elastic IP

API server

Amazon EBS

Gaming-server

Amazon EBS

Elastic IP

Amazon S3

Results and Benefits: A Transformation in Performance and Cost

1 **Latency Reduction**
Maxamind experienced a 50% reduction in latency, providing players with a smoother and more responsive gaming experience, enhancing gameplay quality and satisfaction.

2 **Cost Efficiency**
Optimized resource allocation and AWS's pay-as-you-go pricing model resulted in a 30% decrease in infrastructure costs, improving Maxamind's financial sustainability and profitability.

3 **Scalability and Uptime**
Maxamind could now seamlessly scale their infrastructure to accommodate millions of concurrent players during peak gaming times, ensuring uninterrupted gameplay and high availability.

Next Steps: Leveraging AI/ML for Personalized Gaming Experiences

1

Amazon SageMaker
Maxamind and Core5 plan to explore the potential of Amazon SageMaker to implement AI/ML capabilities within their gaming platform.

2

Personalized In-Game Experiences
Leveraging AI, Maxamind aims to deliver personalized in-game experiences tailored to individual player preferences and playstyles.

3

Predictive Analytics for Player Behavior
By utilizing AI/ML, Maxamind can gain insights into player behavior, allowing them to optimize game design, content, and engagement strategies.

About Core5 Systems & Services Pvt. Ltd.

1 AWS Advanced Tier Partner

Core5 Systems & Services Pvt. Ltd. is an AWS Advanced Tier Partner, demonstrating their expertise and commitment to providing high-quality cloud solutions.

2 Specialized Services

Core5 offers a range of specialized services, including system integration, cloud migration, and digital transformation projects, tailored to meet client needs.

3 Customer-Centric Approach

Core5 prioritizes understanding client requirements and delivering customized solutions that drive business success and deliver exceptional results.