Proposal for Nike Air Jordan Pixel Streaming Event

Introduction

Nike's upcoming Air Jordan launch presents an opportunity to showcase the capabilities of Eagle 3D Streaming's pixel streaming technology. This proposal outlines a comprehensive approach to execute a pixel streaming event that delivers a seamless and immersive experience to a global audience, leveraging advanced cloud infrastructure, server management, and frontend development strategies.

1. Deadline Management

Timeline Estimation Process:

1. Requirement Analysis (1 week): Collaboration with Nike to understand the detailed requirements and specifications for the Unreal Engine application.
2. Backend Development (3 weeks): Preparation of the server infrastructure, including setup and configuration of cloud resources, implementation of streaming services, and integration with the Unreal Engine application.
3. Frontend Development (4 weeks): Development of a responsive web client, including the onboarding, streaming, and post-streaming stages.
4. Testing and Optimization (2 weeks): Comprehensive testing of the entire system to ensure smooth performance, followed by optimizations based on test results.
5. Deployment and Pre-Event Preparations (1 week): Final deployment of the application and infrastructure, along with dry runs to ensure readiness for the live event.

Total Estimated Time: 11 weeks

2. Support Packages

Pre-Event Support:

- Project Management: Dedicated project manager to oversee the development and deployment phases, providing daily updates and ensuring alignment with Nike's objectives.
- Technical Support: 24/7 availability of a technical support team for troubleshooting and resolving any issues that may arise during the development and testing phases.
- Resource Allocation: Allocation of necessary resources, including cloud infrastructure and development personnel, to ensure timely completion of the project.

Post-Event Support:
- Incident Response: 24/7 incident response team to address any issues during the event, with guaranteed response times of under 15 minutes.
- Performance Monitoring: Continuous monitoring of server performance and user engagement to ensure optimal streaming quality.
- User Support: Dedicated support channels for users experiencing issues with the streaming service, ensuring prompt resolution and minimal disruption.

Cost Implications:
- Pre-event support: $15,000
- Post-event support: $10,000
- Total: $25,000

3. Server Scaling Strategy

Scaling Plan:
- **Initial 30 Days:**
  - 180,000 unique 15-minute sessions: Plan for peak concurrency of 6,000 users.
  - Server Configuration: Utilize auto-scaling groups to dynamically adjust the number of servers based on real-time demand.
  - Load Balancing: Implement load balancers to distribute traffic evenly across servers, ensuring minimal latency and optimal performance.

- **Following 60 Days:**
  - 15,000 unique 15-minute sessions : Plan for peak concurrency of 500 users.
  - Server Configuration: Maintain a smaller auto-scaling group, adjusting based on lower anticipated demand.
  - Cost Efficiency: Optimize server usage to balance cost efficiency with performance needs.

Prioritization: Given Nike's brand reputation and customer expectations, prioritize rapid access and low latency over cost efficiency, ensuring a premium user experience.

4. Deployment Strategy and Cloud Provider Selection

Cloud Provider: Amazon Web Services (AWS)

Justification:
- Deployment Regions: Extensive global infrastructure with data centers in the US, UK, and South Korea, ensuring low-latency access for target audiences.
- GPU Availability: Wide availability of GPU instances, essential for handling the graphics-

intensive requirements of the Unreal Engine application.
- Scalability: Robust auto-scaling capabilities to handle fluctuating demand efficiently.

Server Requirements:
- Initial Phase: Deploy GPU instances (e.g., AWS G4 instances) across multiple regions, starting with 20 instances and scaling up as needed.
- Maintenance Phase: Adjust the number of instances to maintain optimal performance with reduced demand.

5. GPU/Instance Specifications

Selected Instances: AWS G4dn.xlarge

Specifications:
- GPU: NVIDIA T4 Tensor Core GPU
- CPU: Intel Cascade Lake Cores
- Memory: 16 GB
- Storage: NVMe SSDs

Rationale:
- GPU Load: Capable of handling the high graphical demands of the Unreal Engine application.
- CPU Load: Sufficient processing power to manage concurrent user sessions.
- Memory and Storage: Adequate resources to ensure smooth streaming and fast load times.

6. Cost Estimation

Server Costs:
- Initial 30 Days: Estimated 6000 concurrent users, 20 instances, 24/7 operation
  - Instance Cost: $0.5 per hour (G4dn.xlarge)
  - Total Cost (30 days): $8000

- Following 60 Days: Estimated 500 concurrent users, 5 instances, 24/7 operation
  - Instance Cost: $0.5 per hour (G4dn.xlarge)
  - Total Cost (60 days): $1830

Support Costs: $25,000 (as outlined above)

Additional Costs:
- Storage and Data Transfer: $2,000
- Miscellaneous Expenses: $1500

Total Estimated Cost: $31,000

7. Event Timeline

Pre-Event Preparations:
- Week 1-2: Requirement analysis and planning
- Week 3-5: Backend development
- Week 6-9: Frontend development
- Week 10-11: Testing and optimization

Event Execution:
- Day 1-30: Initial phase with high user engagement
- Day 31-90: Maintenance phase with lower demand

Post-Event Follow-Up:
-Week 12: Post-event analysis and reporting
- Week 13: Support and maintenance as needed

Conclusion

This proposal outlines a strategic approach to executing a pixel streaming event for the launch of Nike's new Air Jordan shoe. By leveraging AWS for scalable and reliable server infrastructure, implementing robust frontend development, and providing comprehensive support, Eagle 3D Streaming can deliver an exceptional digital experience that aligns with Nike's brand standards and customer expectations.