



# photon



# We Make Multiplayer Simple



Unparalleled Cross Platform Support. Proven in Countless Games.





# Realtime Multiplayer as a Service

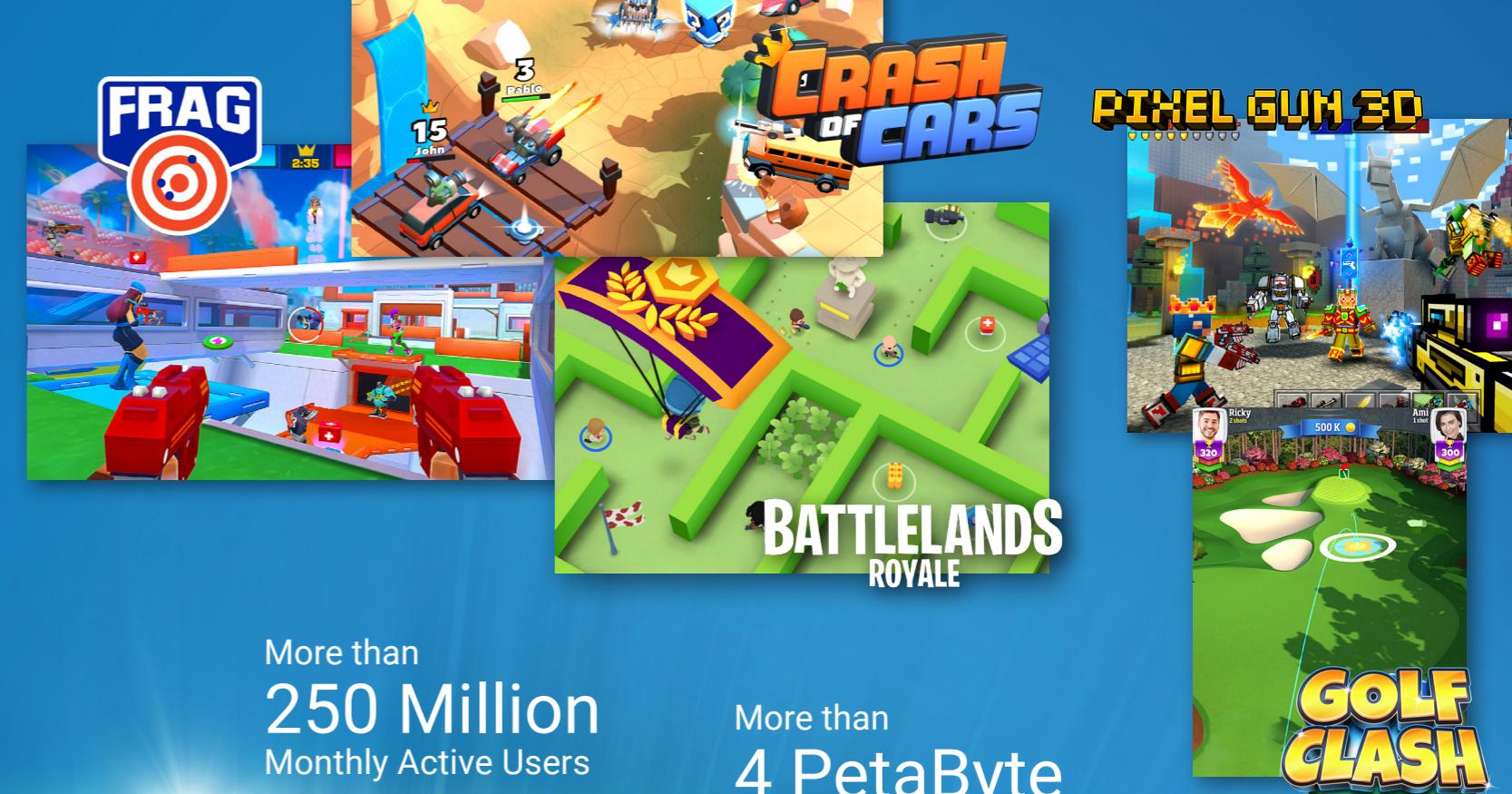
Fast. Reliable. Scalable.  
Hosted in the Photon Cloud.



- ✓ Worldwide Service
- ✓ #1 Networking in the Unity Asset Store
- ✓ R-UDP, TCP, WSS, WebRTC & HTTPS
- ✓ Turnkey Matchmaking & Gameplay APIs
- ✓ Cross Platform: Mobile, PC, Console, VR/AR/MR
- ✓ FREE Plans Available



#1 Network Engine with more than **330,000** Developers





# Blazing Fast Deterministic Engine

Revolutionize the Way You Build Fast Paced Realtime Multiplayer Action Games.

**Zero Lag + 100% in Sync**



▶ See it in Action  
[photonengine.com/quantum](http://photonengine.com/quantum)



**Only INPUT is Sent** Between Players Using **Custom UDP Protocol** (Ultra-Fast and Low Network Overhead).

State-of-the-Art **Prediction/Rollback** Leads to **100% Deterministic** Simulation Without Lockstepping.

**Abstract Away 'Multiplayer'** as the Game Logic Code Does Not Need to Take into Account that the Game is Networked.

Some of the finest Studios use Quantum



SQUARE ENIX

SYBO



FUNDAY FACTORY

madhead

## Highlights

### Deterministic Game Engine

Math, 3D and 2.5D Physics, Pathfinding, Animator ...

### ECS and Job System

Favors Writing Decoupled and High Performance Sub-Systems ...

### Blazing Fast Performance

Zero Runtime Allocations, No GC from Simulation, Blittable Game State, Custom IL Emitter ...

### E-Sport Grade

Replays, Spectating, Cheat Protection and Zero-Lag Predict/Rollback

### Abstracts Away "Multiplayer"

Same Code for Singleplayer, Local and Online Multiplayer

### Photon Enterprise Cloud

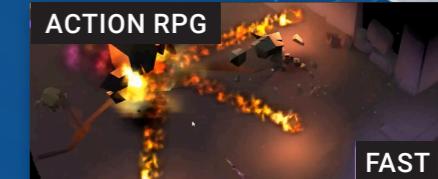
Large Scale, Low Latency, Anti DDoS, 15+ Regions, SLA ...



# QUANTUM



Designed for:



FAST PLATFORM SHOOTER



PHYSICS IO SHOOTER



FIGHTING GAME



NEW  
3D Physics



ARCADE

BRAWLER

SPORT

HYPER CASUAL  
REALTIME

FPS / TPS

NEW

## Tournament SDK

Automated Tool for Scheduling, Creating and Executions of eSport Grade Tournaments

Fully Integrated In-game Experience for Players

Features Game Structures: Battle Royale, 5v5, 1v1 and many more

Supports Formats Including Swiss Groups, Elimination Bracket, Deathmatch and more

Effortless Sign-up/Invite Process Based on Rules and Entry Requirements

Streamlined Prize Pool Calculation and Distribution

Discord Integration: Tournament Bot, Private Leagues and Customizable Webhooks

Streamers Support (Private Tournaments)

Tournament statistics and replays

NEW

## Bot SDK

Deterministic Bots for Singleplayer and Multiplayer Behavior Trees (BHT), Hierarchical FSM (HFSM) and GOAP

Visual Editor Inside Unity (Data Driven)

Live Visual Debugging (in Editor)

All Bots Running Deterministically on Clients

Option to run Bots Server Side

Seamless Takeover on Disconnect and Leave on Reconnect

BHT, HFSM and GOAP can be combined

Reference Implementations

Utilities Library (Generic Broadphase, Graph Based A\*, Dijkstra ...)

# Premium and Enterprise Cloud for Top Grossing Games

Runs and Scales Titles  
for more than 80 Top Studios  
Globally.

- ✓ **Studio Licenses** for Unlimited Titles and Teams/Studios
- ✓ Advanced Dashboard & **Counters API**
- ✓ **Premium Support** with Access to 24x7 NOC Team
- ✓ Plugins for **Authoritative Server Logic**
- ✓ **Dedicated** High Performance Servers by IBM/Softlayer and G-Core
- ✓ Service Level Agreement (**SLA**)
- ✓ **DDoS Protection** and Individual Consulting



RiliSoft



Playdemic



EAGLE FLIGHT



STAR TREK: BRIDGE CREW



MADFINGER  
GAMES.COM



SHADOWGUN LEGENDS



13  
Global  
Hosting  
Centers

	PUBLIC Cloud	PREMIUM Cloud	ENTERPRISE photon CLOUD
<b>CCU Limits</b>	up to 2,000 CCU	up to 50,000 CCU	unlimited
<b>Global low Latency and Scalability</b>	✓	✓	✓
<b>WebHooks and -RPC</b>	✓	✓	✓
<b>Premium Dashboard / Counter API</b>	✗	✓	✓
<b>DDoS Protection</b>	Basic	Basic Optional: Advanced	Optional Optional: Advanced
<b>24x7 NOC</b>	✗	✗	✓
<b>Deicated Servers</b>	✗	✗	✓
<b>SLA</b>	✗	✗	✓
<b>Plugins</b> (Server Side Logic)	✗	✗	✓
<b>Support</b>	Free: Forum   Paid: Email	Standard	Bronze, Silver and Gold
<b>Cost</b>	Cent per CCU	18.5 Cent	29 Cent
			50 Cent (Volume Discounts)

Battle-Tested Service. Trusted by Top Customers.

:DeNA

glu™

Disney

MINICLIP

BANDAI  
NAMCO

SEGA

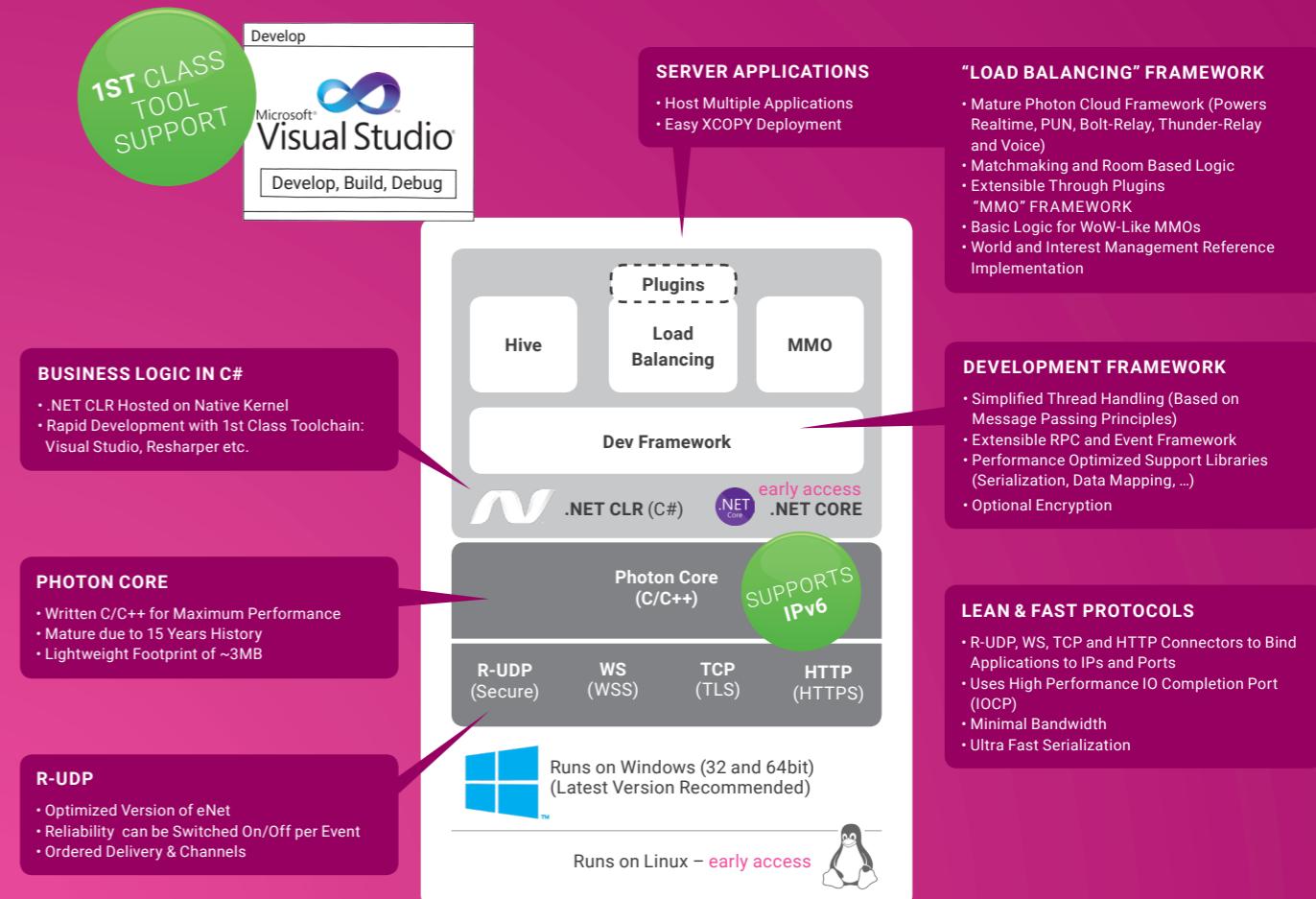


# Multiplayer Hosted on Your Own Servers

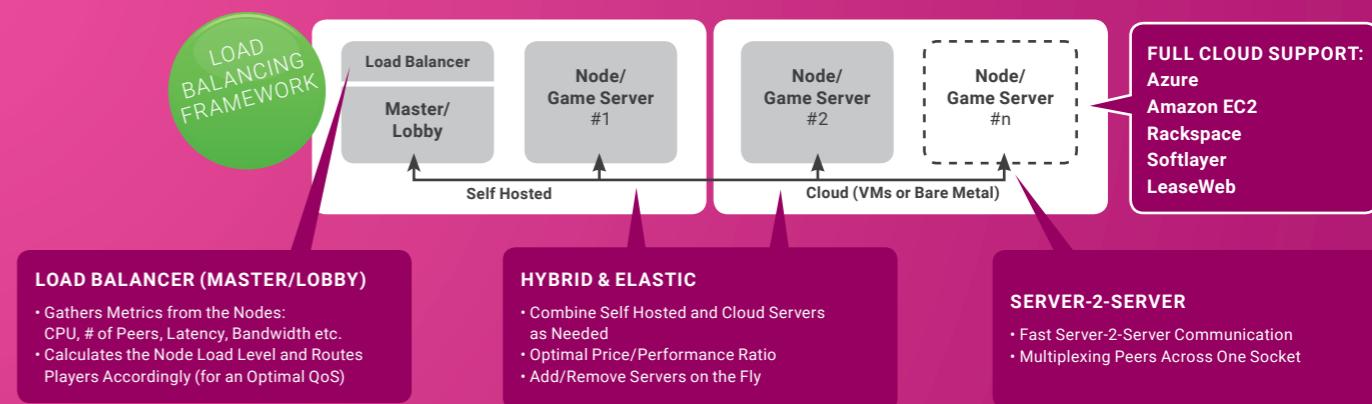


Fast. Scalable. The Network Engine for all Major Platforms.

- ✓ High Performance C++ Core
- ✓ R-UDP, TCP, Websockets & HTTP
- ✓ Extensible in C#
- ✓ Frameworks for FPS or MMOGs
- ✓ 1st Class Unity Support
- ✓ Easy Deployment in the Cloud (AWS, Azure, ...)



Load Balancing Powers Realtime, PUN, Bolt, Voice and Video  
(Chat can't be self-hosted yet.)



"ROCK-SOLID TECHNOLOGY"  
Stefan Wiezorek, CEO of Sandbox Interactive



"...ONCE WE TESTED IT, WE ... ENABLED REAL-TIME BATTLE IN JUST TWO MONTHS."  
Masaru Oyamada, Producer at Square Enix



"...QUICKLY MAKE A VERSION AND SET IT LIVE ALL OVER THE WORLD."  
Artem Petukhov, Head of Marketing at Pixonic



Pick a Plan & Sign up. Upgrade, Downgrade, Cancel at any Time.

100 CCU	500 CCU	Unlimited CCU
FREE	95 \$ / Month per Server	175 \$ / Month per Server

Visit [www.photonengine.com](http://www.photonengine.com), contact [developer@photonengine.com](mailto:developer@photonengine.com)

Looking for Large Installations and Priority Support:  
**ENTERPRISE photon SERVER**

Contact Us for More Details.



# Multiplayer, Voice & Video for Your VR/AR Project

Works on all  
Major Headsets



Photon is Preferred Multiplayer Solution for



Selected Projects and Customers



HALLIBURTON



facebook.



livelike

Vers. 03/19