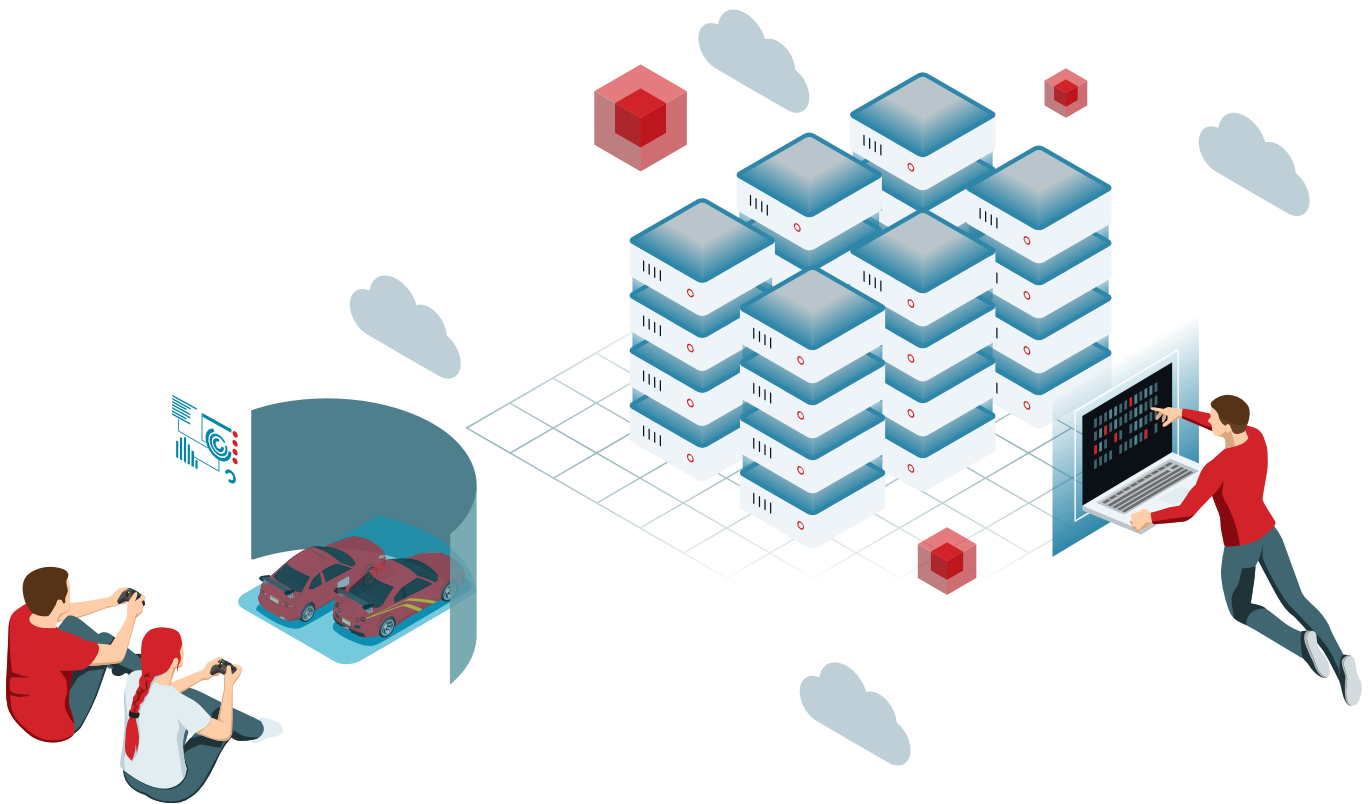


GAME SERVER ORCHESTRATOR



Let automation handle your game server fleets at a click of a button



Multiplayer online games have been growing rapidly over the past years. Game studios have more players and the players themselves have more choices as to what game should they play. These trends create headaches for game producers; are players going to play the game when it's launched? Are they going to play it 3 months later? These questions, if answered incorrectly, can cost thousands, if not millions, of dollars in terms of infrastructure. This is why i3D.net created a solution to alleviate the possible pain of getting this wrong.

i3D.net's game server orchestrator was built in collaboration with AAA game studios, with straightforward integration, hosting environment customization and guaranteed resource availability in mind.

The Game Server Orchestrator listens to your needs per single game session and implements your strategy on a whim; your fleets, your deployment locations, the resources required, your choices of public cloud providers and your scaling mechanism. You determine how, where and when the automated game server orchestration takes place. And don't forget to leverage our two decades of expertise in game hosting. Our support team is available 24/7/365 and are just one click away.

BENEFITS

Unreal / Unity SDK

The Game Server Orchestrator is fully engine agnostic. We provide SDKs for Unreal and Unity engines for a seamless integration between our system and your game's backend.



Fail-proof

The game server orchestration system was built with redundancy and resiliency in mind. The system continuously scans for available resources and allocates game servers based on your scaling strategies.

Integrate multiple providers

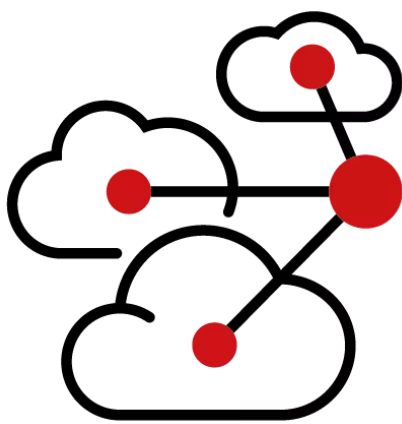
Game Server Orchestrator works hand-in-hand with all of your Game Online Services from other providers, no strings attached. Combine and leverage game services from multiple sources for the most optimal game hosting experience.



BENEFITS

Efficient budgeting

Considering different hosting strategies is a must for the majority of game studios. Optimize your resource usage whilst combining your preferred scaling strategies without sacrificing your choices.

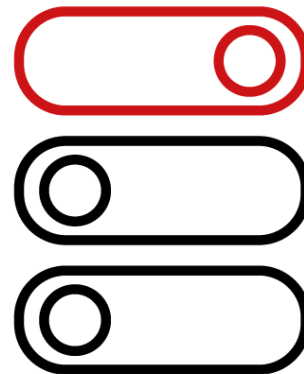


Guaranteed availability

i3D.net guarantees infrastructure resource availability. Any skew towards your resource needs can be scaled in to AWS, GCP, and Azure public clouds for any of your hosting provider strategies. Bring your own public cloud account and set up the environment the way you want.

Fully customizable

Because every game is different, customization is very important. You can adjust every single parameter according to your needs. And if you are lacking knowledge, our experts will help you out in no time.



Hands-off

If you really want to focus on the creative side of your game, you are more than welcome to leave it with our experts to handle your online multiplayer game infrastructure from A to Z.

HOW DOES THE ORCHESTRATOR WORK?

Once you have integrated your game's backend, your journey with i3D.net's game server orchestrator begins!

To successfully start with the orchestrator, you need to setup your hosting template parameters, scaling mechanisms and deployment types by selecting:

- I. Bare Metal Instance types for the base layer player base
- II. Select regions for deployment
- III. Select cloud providers for multi-cloud bursting for additional capacity
 - a. Primary, secondary cloud provider
 - b. Instance types to scale the additional capacity in to
 - c. Locations for scaling
- IV. Select minimal and maximal amount of game instances per game server, as well as the buffer of free game servers.

And your deployment is ready to go!

Once your players start entering the game servers:

- I. The game client talks to the matchmaker of your choice and sends game and server details to each other.
- II. Game client connects to the game server and disconnects once the round is done.
- III. The game server sends information to the orchestrator which acts accordingly to the set parameters and player count.

THE ORCHESTRATOR OVERVIEW

Feature	Description
Round-robin scaling	Scale your game servers up and down depending on your player demand. The game server orchestrator will first look for a usable bare metal server, if not available, orchestrator will deploy cloud instances, based on your configuration settings.
Guaranteed availability	We guarantee resource availability for any of your workloads. Combine, match and mix resources from different providers.
Resource optimization	Orchestrator efficiently moves game servers around, optimizing resources based on current player demand.
Automated deployments	With pre-set deployment rules, game server orchestration software automatically takes care of your hosting environment based on the rules you set.
Monitoring and logging	You have full visibility on the infrastructure resource usage, all plotted against the actual number of players.
Self-healing	Continuously monitors server performance and scales your resources to properly functioning machines, without any negative impact on your hosting environment.
Load balancing	Distributes traffic across all game servers, ensuring smooth online experiences and preventing server overloading.
Multi-Cloud support	Supports mixing and matching infrastructure resources from i3D.net, AWS, GCP and Azure for maximum availability and resilience.
3rd party tool integration	Integrate the game server orchestrator with other tools and software such as matchmaking, analytics, and cloud services.
Game build distribution	Game builds are distributed via i3D.net's Content Delivery Network (CDN) to the regions of your choice. It individually downloads the build archive from your build origin and caches it as close to your players as possible.
Patching mechanisms	Choose from 3 different patching strategies. Forced: update all game servers at the same time, within a maintenance window. Rolling: Update game servers as soon as they exit naturally or when they are empty and unallocated. A/B deployment: deploy new versions of your game servers alongside your already existing game servers.
Unreal and Unity SDK	The Game Hosting SDK is available for a variety of game engines, including Unreal Engine, Unity, and CryEngine, and supports multiple programming languages such as C++, C# and Java.
Managed game hosting	We offer hands-off game hosting services, including Anti-DDoS protection, OS system management, Infrastructure performance reports and patching, all whilst providing you with full visibility and advice.

THE ORCHESTRATOR REQUIREMENTS

First and foremost, for the game server orchestrator to do its job to the full extent, we require our customers to integrate our in-house built **Arcus management protocol** for communication between the orchestrator and the game servers. We support the **standard Steam query protocol A2S** in our Game Hosting SDK.

In addition to the management protocol, we require our customers to provide:

1. Players per game session.
2. CPU usage per game session.
3. RAM usage per game session.
4. Bandwidth usage per game session.
5. Bare Metal server size (please find our [Bare Metal Server offering here](#)).
6. Preferred Public Cloud provider.
7. Public cloud server type.
8. Expected amount of players at Day 1.
9. Expected player peak amount.

i3D.net enables game studios and enterprises to safeguard their business-critical applications online. We provide high-performance, low-latency networking solutions through a vast, privately-owned global infrastructure.

As game sector veterans, we convert our game hosting innovations into scalable tools for Enterprise and IT. With thousands of servers spread over 6 continents, we can provide you with an unmatched low-latency network, and expert individualized support.

We'd love to get you in direct contact with our team to provide you with a fitting solution.

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